



# **PHOTOMOD 8.0.4738- 8.1.5431**

## **New functions**

### **General**

- Radical increase of the productivity in adjustment of satellite project
- Considerable increased accuracy in adjustment of satellite project
- Adjustment of ADS projects
- New algorithm for «free» model adjustment (no EO/GCP)
- New method of cutlines creation — Object oriented
- Antenna offset in Exterior orientation parameters
- UAS video processing
- New functionality for correction of images georeference in GeoMosaic
- Pan-sharpening in PHOTOMOD Conveyor
- Support for image replacement in GeoMosaic projects (Image Wizard)
- «Storage manager» in Project management window
- Added support for importing cadastral plan of the territory in the form of XML files
- Work directly with PhaseOne IIQ images

### **Aerial triangulation**

- Merging multiple tie point catalogs into one
- New camera parameter averaging algorithm
- Automatic block rotation to the optimal plane after «free» model adjustment
- Overlap map generation with consideration of areas without background
- Speeding-up of the process of creating an Adjustment report by changing the default settings
- Fixed error in the tie point attribute window
- Fixed display of created tie points in the tie point measurement window
- Fixed file naming by template during export to PAT-B



- Fixed display of systematic error along the strip in the adjustment PDF report
- Fixed handling of Rolling Shutter correction
- Fixed error where the block adjustment window did not expand properly
- Fixed display of the points in the triangulation point measurement window
- Fixed where an empty Adjustment report was saved
- Fixed error when the distance to the nearest points was not taken into account when using the Area correlator
- Fixed error when Y-parallax values were not displaying in the «Triangulation points» window with the «Points on open images» mode
- Fixed error that caused a Windows system message appeared when working with the Relative Orientation Report

## Satellite imagery

- Support of the new version of the « StilSat » data
- Automatic adjustment after tie point measurement
- Option to select output file format for batch pansharpening of satellite imagery
- New adjustment report for satellite projects
- Updated adjustment report configuration parameters for satellite projects
- Fixed error where Superview images were not added to the project after pansharpening
- Fixed histogram stretching issue for satellite images with existing image pyramids
- Fixed error where the last character in the name of satellite images was removed when added to project
- Fixed error when the specified Pan-sharpened images were not added to the project
- Fixed display of the ID when adding satellite images to project

## Orthorectification and mosaics

- New reference map window
- Option to close all 2D windows with a single action
- Added search by list "Fix reference images with weight" in brightness adjustment parameters
- Selection synchronization between preview and reference image list
- Button for distributed MegaTIFF generation added to the toolbar



- Assign clouds/invisible zones to images
- Added new cutline generation parameters
- Updated layout of the cutline generation settings window
- Support for loading multiple reference rasters
- Background color selection for each reference raster
- Independent coordinate system support for each reference raster
- Unique name check when renaming tie points
- Faster image removal from the project
- Cutline editing available in the tie point measurement window
- Saving column configuration in the project image list
- Updated GeoMosaic menu items to align with PHOTOMOD terminology
- Added consideration of the area without background when brightness adjustment with the active option of considering image edges
- Artifact check added in cutline verify
- Embedded image list window in GeoMosaic
- Display of only two images with cutline by marker
- Fixed limitations in mosaic parameters for pixel size
- Fixed error where distributed MegaTIFF generation used previous settings
- Fixed error where "Building height measurement" did not work
- Fixed deletion of tie points in satellite projects
- Fixed polygon inserting during orthotransformation
- Fixed error of searching for images under a marker when there are no cutlines
- Fixed loading of "Invisible zones"
- Fixed error where the number of selected images was not displayed during orthorectification
- Fixed error when closing GeoMosaic due to which the raster layer was closed before the message about saving the project
- Fixed list of layers in GeoMosaic Layer Manager during distributed processing
- Fixed error where there were two identical commands on the GeoMosaic toolbar
- Fixed error when after orthorectification into the PZ-90.02 coordinate system the image shifted relative to the terrain



- Fixed error in the «Redraw preview on editing» option in GeoMosaic
- Fixed error when the GeoTIFF georeference was not written
- Fixed error that caused the double sheets to shift in longitude for Northern latitudes during Split into sheets

## **Digital terrain and surface models**

- Added height scale display for point clouds
- A capability to use preliminary DSM as initial approximation for creating dense DSM (SGM method)
- Added file path tooltip in LAS import window
- Editing of individual point classes while displaying the full point cloud
- Point cloud histogram synchronized with point classifier
- Improved “undo last action” functionality for point groups in LAS import window
- Added point cloud screenshot saving
- Added option to update LAS file list (load all files from folder)
- Speeding-up of fill NULL cells for DEM
- Support for DEMs in MS-TIFF format
- New option points (LAS) color from orthoimage when convert DEM to point cloud
- Fixed DTM order in the “DEMs comparing parameters” window
- Fixed display of the “Vertical DEM profile along selected line” window
- Fixed TIN display in the block scheme under pseudo-stereo mode
- Fixed point cloud classification error
- Fixed DTM merge issue with non-rectangular pixel sizes
- Fixed distributed point cloud to DEM/Ortho conversion from Load LAS window
- Fixed error where a message appears about limiting the DEM size when working with images in MegaTIFF format
- Fixed error where 3D-TIN was not created from DEM
- Fixed error where filter by number of returns for a point cloud does not find source files
- Fixed error when the moving buttons for DEM layers didn’t work during orthorectification
- Fixed error when using the DEM editing option “Cut inside area”



- Fixed error in recalculating the output pixel of the DEM when transforming from the UTM Coordinate System to Latitude-Longitude
- Fixed error when the boundaries of the DEM were calculated incorrectly when transforming to another coordinate system for northern latitudes
- Speeded up the work of the «Merge DEM...» window
- Fixed Smooth interpolation of a DEM within the boundaries of selected polygons
- Fixed a typo in the name of the LZW compression algorithm
- Fixed error when the «Offset of sheet» parameter was not taken into account during Split DEM into sheets

## **Stereovectorization**

- Write median height to attribute in «Assign height by DEM» tool
- Speeded up work with vector layers when the "Object List" window is open
- Fixed error opening the "Object list" window for contour lines
- Speeding-up work with vector objects when the Objects list window is open
- Fixed error where 2D-objects from dxf-format were not imported
- Fixed error that caused PHOTOMOD to crash when working with vector objects
- Fixed error where attribute values disappeared when importing from MID/MIF format
- Fixed error where 24 decimal places were specified in the attribute values of vector objects when imported from various formats
- Fixed error where an obligatory layer attributes was created with 24 decimal places
- Fixed error of exporting vector objects to Panorama/SFX format when using Cyrillic
- Fixed error that caused slowdowns in the operation of the object attributes window for vectors with a large number of vertexes
- Fixed error when saving a list of vector objects
- Fixed error with distributed processing of contour lines
- Fixed error in the window for exporting vector objects to Shape format
- Fixed error where attribute label were not created from the contents of an existing attribute
- Fixed error where the "Object List" window would not update
- Fixed error when co-editing objects were not saved when autosaving was enabled
- New option for attributes— assign height by DEM
- Fixed the table format in the "Correct topology of selected point" window



- Fixed error when vectors were exported to the wrong format
- Fixed unit recording when exporting to MIF/MID format
- Fixed the recording coordinates when exporting vectors to CSV format
- Fixed error in the “value” field for a text attribute of a vector object
- Optimized column width in the Classifier
- Removed limits for numeric fields in parameters of the buffer zone of vector objects
- Fixed error when the World Atlas was not created as a vector layer
- Fixed error when values were not added for an attribute of integer type
- Fixed error when the “Color by attribute value...” option did not work

## **2D and 3D windows**

- Accuracy control by adjacent images
- Fixed display error on monitors with resolution higher than Full HD
- Fixed error in the raster layer parameters window
- Fixed display of 2D windows in GeoMosaic
- Added display of average GSD to the status line
- Added option to maximize «floating» 2D-windows
- Added close button on windows tab
- Updated some tool icons

## **3D modeling (PHOTOMOD 3D-Mod)**

- Automatic filling of holes in 3D-TIN in presence of dead spots
- Fixed incorrect 3D-TIN texturing when using a single image
- Fixed the text of message about limits when exporting a 3D-model to 3ds format
- Fixed the «Save» option in the Image Editor window in 3D-Mod

## **PHOTOMOD GeoCalculator**

- Added ability to determine affine transformation parameters between coordinate systems using a set of points
- Automatic replacement with EGM 96 geoid if a previously used geoid is not found in the system
- Ability to create custom geoids in GeoCalculator



## **PHOTOMOD UAS**

- Fixed error where the "Copy images" option was not applied when copying a project

## **PHOTOMOD Conveyor**

- Added the ability to select an output coordinate system different from the project's coordinate system
- Fixed limitation on the number of georeference symbols when loading orthophotos
- Fixed error when the PHOTOMOD Conveyor icon was not created

## **Raster Converter**

- Added sigmoid contrast adjustment in radiometric correction
- Improved operation of the "Autolevel" algorithm in radiometric correction
- Fixed discrepancy between the result of "Autolevels for selected images" and a similar window in radiometric correction
- Fixed error where configuration parameters were not saved
- Fixed error in radiometric correction where the white background color changed when using Brightness-Contrast-Gamma
- Fixed error where "artifacts" appeared in the «Brightness-Contrast-Gamma» window
- Fixed error with the «Autolevels for selected images» function in the Raster Converter window
- Error in the operation of radiometric correction of space images

## **Image Wizard**

- Fixed a crash occurring after updating the "Projects" tab
- Fixed the "Apply to selected" option behavior
- Fixed the "Invert selection" option behavior

## **Distributed Processing**

- Fixed error in the distributed processing window when measuring tie points using the object-based correlator for scanner imagery



## Project Manager

- Fixed saving of hotkey settings
- Image filtering by GSD value
- Windows preview window synchronized with the PHOTOMOD block scheme window
- Improved information structure in the “DistribInfo” window
- Ability to pin layers in the Layer Manager
- Display of processing progress status on the taskbar
- “All supported formats” filter when adding images
- Optimization of the «Objects list» window
- Fixed window maximization issues when using multiple monitors
- Fixed fractional number input error
- Fixed operation of DistribInfo
- Fixed behavior of settings windows when resizing
- Fixed Geoid 2008 installation issue for Linux
- Corrected some typos in menu items
- Fixed inaccuracies in English translations
- Updated license for DustCorrect
- Updated translation for the «Restore project» option
- Export several MID/MIF files in the “Add pushbroom images” window
- Added message about limiting the resolution of images in DustCorrect Lite
- Fixed default parameter in adjustment in PHOTOMOD UAS
- Fixed saving and reading projects of ForestInterpreter module
- Fixed error where there was a 20 MP limit for images uploaded to PHOTOMOD Lite
- Fixed error that caused the icons in the block editor window to disappear
- Fixed error where DistribInfo displayed incorrect network security key parameters
- Fixed error where the color for the color selection button was not displayed
- Fixed error where the time spent was not displayed in the statistics window
- Fixed a typo in the Log cleanup setting
- Fixed error when trying to hide FastOrtho layer
- Fixed error when sorting images in the “Image List...” window
- Fixed error when the web-map «ESRI imagery basemap» did not load





- Fixed error in the “Zoom to fit” option from the context menu for the FastOrtho layer
- Fixed the operation of the «Transform to another coordinate system...» window
- Removed limits for numeric fields in parameters
- Fixed error when the DPW PHOTOMOD didn't start if there was a Cyrillic symbols in the installation folder name
- Fixed error when the hotkeys Ctrl + Alt + Mouse Wheel (Zoom in / Zoom out) for the block scheme did not work
- Fixed error when the number of images in project was incorrectly displayed when distributed pyramid creation

## **Import / Export**

- Fixed export of selected layer from Layer Manager