PRESS RELEASE

# New Version of PHOTOMOD 9.0

JSC RACURS announces the release of PHOTOMOD 9.0, a new version of the software system for photogrammetric and radargrammetric processing of Earth remote sensing data. In version 9.0, radar data processing has become available within the basic digital photogrammetric workstation (DPW) for the first time, a new model for representing vector objects has been implemented, and the performance of key technological stages has been improved.

## Special Offer

**Purchase PHOTOMOD 9.0 or extend your technical support at the prices of version 8.1 until the New year!**

## Key features

**Radar imaging: the new PHOTOMOD SARExt module.** The PHOTOMOD DPW now includes a module that enables the processing of radar images using RPCs directly within the system. It includes block triangulation, construction of DTMs and creation of orthophotomaps, as well as stereoscopic and interferometric processing. Radar data, which are independent of cloud cover and illumination, are particularly relevant for monitoring and mapping hard-to-reach areas in high latitudes with severe weather conditions and prolonged polar nights.

**Multipolygons.** A new type of multi-connected vector objects has appeared - multipolygons with an unlimited nesting level. This makes it possible to describe contours of complex topology correctly and simplifies data exchange with geographic information systems.

**Unmanned aerial survey (UAS).** The video-processing algorithm in PHOTOMOD AutoUAS has been optimized.

**Expansion of the automation scope.** PHOTOMOD Conveyor now supports the ADS camera.

## Satellite Imaging

- a new adjustment method, “Coefficient Approximation”, has been implemented for data with low initial georeferencing accuracy;
- the list of supported data sources has been expanded: the formats of the GÖKTÜRK-1 and SpaceEye-T satellites have been added, as well as processing of Chinese satellite images when only RPCs are available (without XML metadata);

- a function has been added to exclude from adjustment those triangulation points whose intersection angle is below a specified value; this enhances the reliability of the geometric constructions.

## Phototriangulation

The list of pre-installed cameras has been expanded, the settings for tie point measurement by the area-based correlator have been optimized, and a new algorithm for sorting by name in the point catalog has been implemented.

## DTM and DSM construction

The polynomial interpolation of the DEM has been accelerated. Support has been added for the TIFF format with LERC compression, designed for efficient DEM storage, along with a new black-and-white palette for DEM visualization.

## Stereo Vectorization

The range of vector data formats has been expanded: GeoPackage (geopkg), GML, Parquet and GeoParquet are now supported. The “Measurements” window can now display the coordinates of the vector’s midpoint.

## Orthotrasformation and mosaic creation

The capabilities for working with radiometric correction (RMC) files have been expanded. A function for selecting sheets by the boundary of the project area has been added. Mosaic creation with brightness equalization using a circular aperture has been substantially accelerated.

## 3D modeling

Import and display of classified point clouds in LAS format have been implemented, as well as transparency settings for their visualization.

## PHOTOMOD AutoUAS

- a new type of output data - a classic orthophotomap and DTM, alongside the true orthophotomap and DSM;
- a georeferencing window for the project’s output data (primarily for the free model);
- automatic creation of a “nominal” camera when information about it is absent from the metadata of central-projection images;
- an option for compressing output data;
- refined computation of the boundaries of output products;

- automatic filtering of images with a small intersection angle during preliminary adjustment using the independent model method;
- optimized default parameters for 3D-TIN generation.

## Radiometric Correction Editor

NDVI has been integrated into the radiometric correction window, which is useful for assessing the condition of vegetation cover, including in forestry. Distance measurement tools, support for the Hue–Saturation–Brightness (HSB) color model and an improved interface of the filter windows have been implemented.

## Other Improvements

**Raster Converter —** a tool for viewing the tags of TIFF/GeoTIFF files.

**PHOTOMOD Conveyor —** general optimization of the interface.

**Project Manager —** keyword search in the settings, optimized names of layers created in the Layer Manager, updated information in the layer properties window, and configurable formatting of PDF reports.

## Release significance

Version 9.0 reflects the key trends of modern geoinformatics: processing of radar and optical data in a unified software environment, a transition to cloud-oriented formats (COG, GeoParquet, MBTiles), automation of UAS data processing, and increased computational performance. This expands the range of tasks that can be solved and reduces the time required to obtain final cartographic products.

**Please note: a new price list for the PHOTOMOD 9.0 software products line will take effect on November 20, 2026. You can purchase new licenses or extend your technical support on the price terms of the 8.1 version until December 30, 2026.** Detailed information on the version and the update procedure can be obtained on the website **https://en.racurs.ru** or via e-mail at **com@racurs.ru**.

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