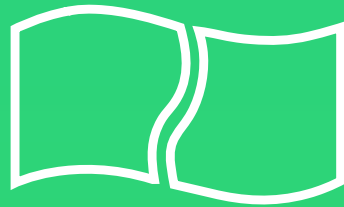


Agisoft



PhotoScan

Fully automated professional
photogrammetric kit

Agisoft PhotoScan is a stand-alone photogrammetric software solution for automatic generation of dense point clouds, textured polygonal models, georeferenced true orthomosaics and DSMs / DTMs from still images.

Based on the state-of-the-art technology developed by Agisoft, it allows for very fast processing (typically within a couple of hours), providing at the same time highly accurate results (up to 3cm for aerial, and up to 1mm for close-range photography).

Agisoft PhotoScan is capable of processing of thousands of photos, yet all the operations are performed locally, without the need to transmit the data outside the company, making it ideal solution for processing of sensitive data.

The software package has a linear project-based workflow that is intuitive and can be easily mastered even by a non-specialist, while professional photogrammetrists have complete control over the results accuracy, with detailed report being generated at the end of processing.



[CGPress Editor's Choice Award](#)



[3D World Highly commended](#)

Advantages



01. Highly accurate and detailed results
02. Fully automated and intuitive workflow
03. GPU acceleration for faster processing
04. Network processing for large projects
05. Reasonably powerful Standard edition for art projects
06. Easy sharing with PDF export and direct upload to online resources

Capabilities



01. Aerial and close-range triangulation
02. Dense point cloud generation and classification
03. True orthomosaic and DSM / DTM generation
04. Orthomosaic seamline editing
05. Elevation contour lines generation
06. Georeferencing using flight log and / or GCPs
07. Coded and non-coded targets auto detection
08. Coordinate / distance / area / volume measurements
09. Multispectral imagery processing and vegetation index calculation
10. Polygonal model reconstruction and texturing
11. Hierarchical tiled model generation and visualization
12. 4D reconstruction for dynamic scenes
13. Spherical panorama stitching
14. Built-in Python scripting for job automation

Compatibility



01. Processes images from frame / fisheye / spherical cameras
02. Exports results in widely supported formats
03. Works well with most UAVs
04. Supports most EPSG coordinate systems
05. Runs on Windows, Mac OS X, Linux



Build

Photorealistic, highly detailed 3D models, classified dense point clouds, fine resolution DEMs generated with Agisoft PhotoScan can be used in a wide range of applications, from visual effects industry to engineering projects

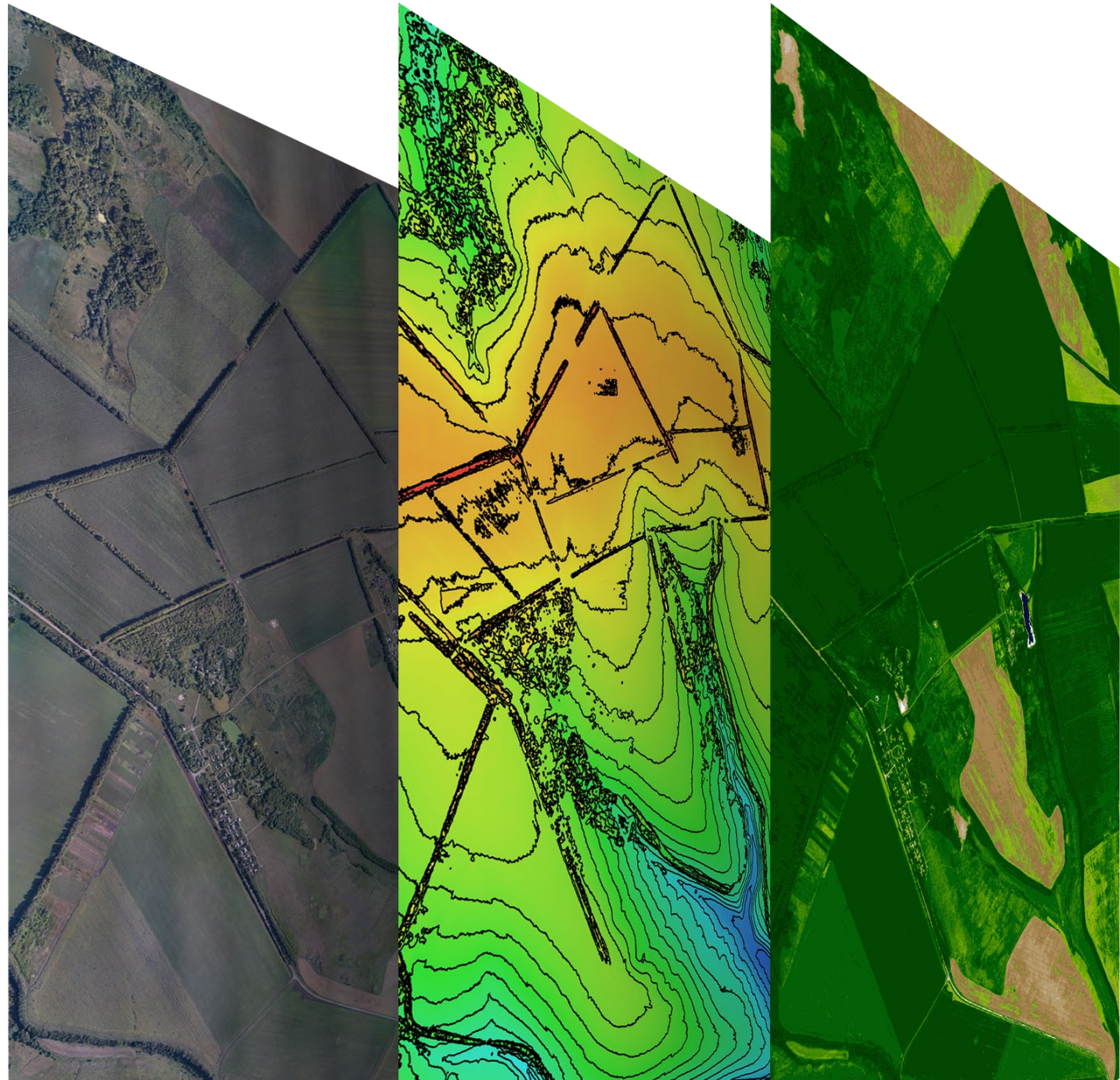
Take a look
at Tutorials



Measure

High accuracy of polygonal models and DSMs reconstructed with Agisoft PhotoScan guarantees precise area and volume measurements. Multispectral imagery processing and NDVI index calculation support make it a valuable tool for precision agriculture projects

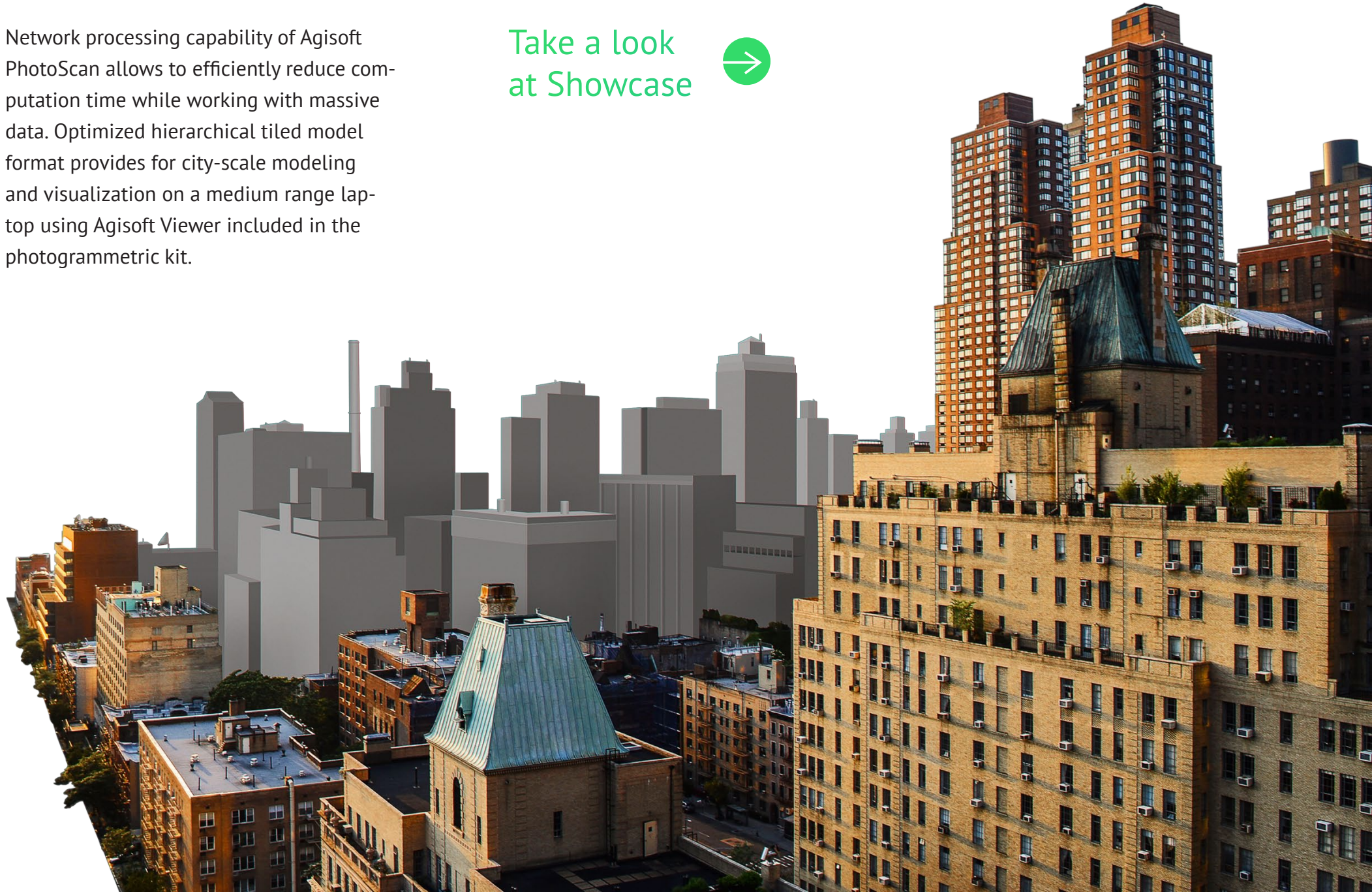
Take a look
at Articles



Visualize

Network processing capability of Agisoft PhotoScan allows to efficiently reduce computation time while working with massive data. Optimized hierarchical tiled model format provides for city-scale modeling and visualization on a medium range laptop using Agisoft Viewer included in the photogrammetric kit.

Take a look
at Showcase



Surveying and Mapping

Seamless orthomosaic

PhotoScan is a perfect tool for aerial imagery processing. The functionality of the program is being constantly developed according to the tasks set by rapidly emerging UAS industry.

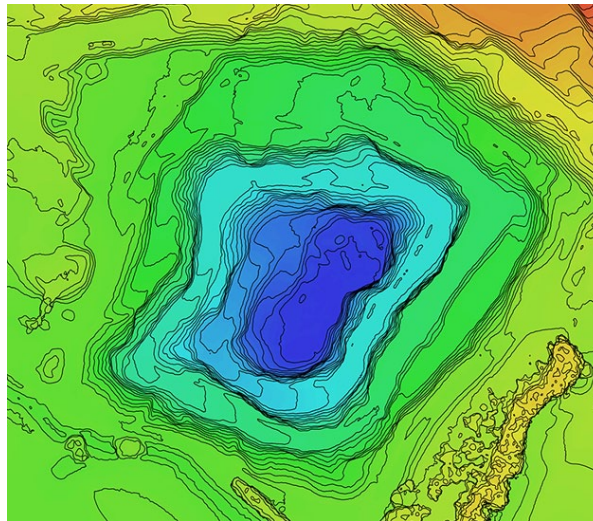


PhotoScan has proved to be a professional level post-processing tool capable of dense point clouds generation and classification for further exceptionally detailed DSMs/DTMs calculations and high-resolution seamless orthomosaics export, not to mention reconstruction of precise polygonal models of large scale objects. It is an indispensable part of the GIS workflow starting with a UAV system.

Mining and Quarrying

Highly accurate measurements

Highly accurate DEMs produced by PhotoScan lay the grounds for precise area and volume measurements, both for excavations and piles. Once multiple flights performed at different time moments, PhotoScan allows for volume change tracking, soil erosion and glacier studies.



Automatic non-coded targets detection capability saves up on human work in inspection projects done on a regular basis.

Precision Agriculture and Environmental Management

Customized vegetation index calculation

With support for panchromatic, multispectral and thermal imagery, PhotoScan seamlessly integrates into workflows involving processing of data from diverse sources, like vegetation and soil analysis, fires and night studies, etc.



Vegetation indices calculation according to a user-defined formula allows to analyze crop problems and generate prescriptions for variable rate farming equipment.

Archaeology and Documentation

Works well with consumer camera

Archaeology more and more often relies on photogrammetric approaches today, be it a need to model an artifact or a demand for an excavation mapping.



Thanks to the capability to process imagery from any digital camera, PhotoScan is widely used in various archaeological projects both up in the mountains and deep under the water, including special researches like a greenery pattern study to find ancient ruins under the ground or a rock art documentation and analysis project.

Architecture and Cultural Heritage Preservation

Oblique imagery support

Numerous projects prove that PhotoScan is a quality tool to solve the tasks of facade and building modeling.



With support for oblique imagery processing, PhotoScan allows to reconstruct the whole building, which can be employed for virtual tours creation, with reconstruction results being exhibited as illustrative models of large-scale cultural heritage objects. 3D models of partially ruined monuments and artifacts generated with PhotoScan present reliable basis for restoration works thanks to exceptional accuracy of reconstruction results.

Visual Effects and Game Design

Photorealistic texture

Thanks to being highly detailed and photo-realistic, PhotoScan models meet the strict requirements of professional animation studios, which successfully employ the software for movie and game production.



Face and body capture results, being among the most demanded ones, prove that PhotoScan potential goes beyond one's imagination.

Agisoft PhotoScan 1.2

More powerful and more flexible

Agisoft PhotoScan version 1.2 presents orthomosaic editor window with support for orthomosaic/DEM preview, seamline editing, NDVI calculation and DEM-based measurement tools. New orthomosaic export formats and direct web publishing facilitate software integration in a wide variety of workflows. Improved tie point localization and seamline selection strategy guarantee more accurate and clean results.





Seamline Editing

PhotoScan 1.2 introduces a manual seam-line editing function to secure control over the orthomosaic quality. DEM-based orthomosaic generation allows to streamline targeted product creation, while export with customized polygonal boundaries enables to produce ready-to-ship-to-customer product. Image brightness control provides for display adjustment according to operator requirements.



NDVI Calculation

Raster calculator is an easy-to-use tool to generate NDVI and other indices data for multiband datasets according to a user-defined formula and colour palette. Calculated NDVI data can be exported as an orthomosaic or converted to a vector format for further analysis.



New Measurement Tools

PhotoScan 1.2 performs DEM-based point, distance, area, volume, and profile measurements, supports contour lines generation and export, as well as polyline and polygonal shape drawing on DEM and orthomosaic. Newly introduced vertical datums support allows to use metadata from various sources.



Optimized Aerial Workflow

Direct DEM-based orthomosaic generation, skipping polygonal model step

DEM, orthomosaic, tiled model preview

Distributed processing for DEM and orthomosaic generation

Fast access to unpacked PSX projects

More informative processing report in your language



New Data Formats

Orthomosaic export in Google Map Tiles, World Wind Tiles and MBTiles formats

Direct upload to MapBox service

Shapefile format support for shapes and contours

Tiled model export as PhotoMesh layer

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