

CORRELATOR3D™

PRODUCT DESCRIPTION

SimActive is the developer of Correlator3D™ software, a patented end-to-end photogrammetry solution for the generation of high-quality geospatial data from satellite and aerial imagery, including UAVs. Correlator3D™ performs aerial triangulation (AT) and produces dense digital surface models (DSM), digital terrain models (DTM), point clouds, orthomosaics and vectorized 3D features. Powered by GPU technology and multi-core CPUs, Correlator3D™ ensures matchless processing speed to support rapid production of large datasets.

SimActive has been selling Correlator3D™ to leading mapping firms and government organizations around the world, offering cutting-edge photogrammetry software backed by exceptional customer support.

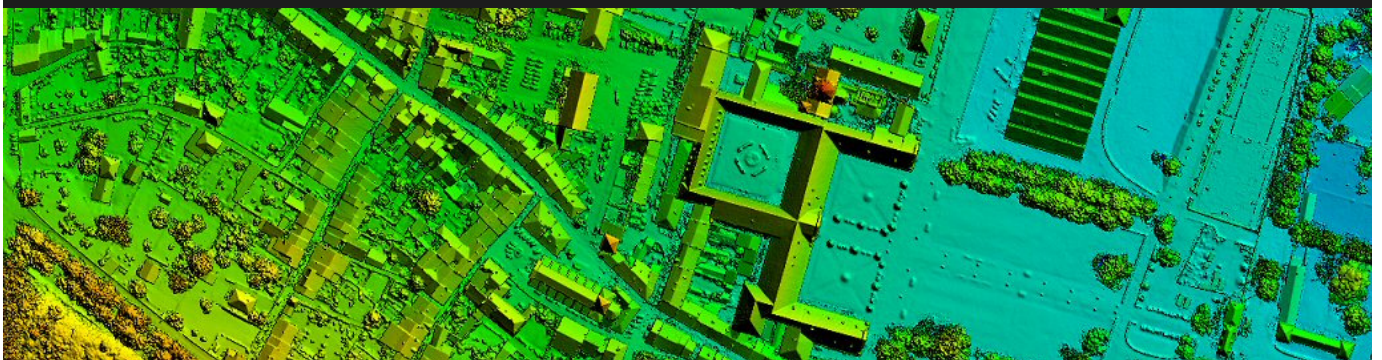
BENEFITS

- Supreme quality delivered through patented technology utilizing advanced computer vision algorithms
- Quickly process thousands of images through GPU powered and multi-core CPU computing
- Highly automated processes with intuitive reviewing and manual editing tools for customer specific requirements
- Modular design offers clients flexibility with respect to budget and easily integrates into a production workflow

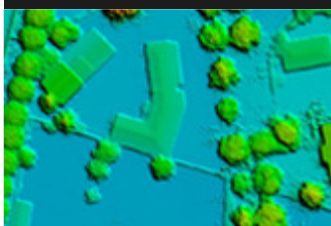
PROCESSING MODULES

- Aerial Triangulation
- Tie Point Editing
- DSM Generation
- DTM Extraction
- DEM Editing
- Orthorectification
- Mosaic Creation
- Mosaic Editing
- Feature Extraction

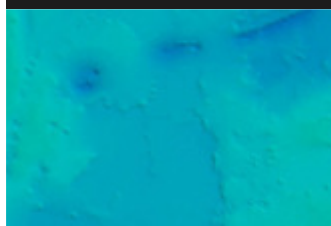
DENSE DSM



DSM



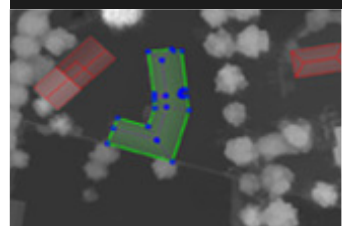
DTM



ORTHOMOSAIC



3D FEATURES



TOOLS

- Point Cloud Colorization
- NDVI Map Creation
- Volume Calculation
- Script Mode & Command Line
- DEM Merging & Tiling
- 3D Change Detection
- DEM Inspection
- Fiducial Detection
- DEM Visualization & Profiles

TECHNOLOGY ADVANTAGES

- Rapid and accurate aerial triangulation using highly innovative tie point extraction and bundle adjustment algorithms
- Highly dense DSMs/DTMs and point clouds through unique autocorrelation and filtering techniques
- Seamless and color-balanced mosaics composed of unlimited images
- Simultaneous multi-user editing of mosaics ensuring fast project completion time
- No system, memory and project size limitations due to automatic processing of data on a tile-by-tile basis
- Modular user friendly design adapted to typical photogrammetry workflows
- Smooth interaction with large datasets due to highly efficient data handling capabilities
- Easily scalable across multiple PCs through scripting and batch processing
- Same interface for aerial, satellite and UAV projects

SUPPORTED IMAGERY

AERIAL	SATELLITE	UAV
Microsoft Ultracam	GeoEye	Any UAV platform
Intergraph Z/I DMC	WorldView	All cameras & sensors
ADS80	IKONOS	
VMA3	SPOT	
RCD30	RADARSAT-2	
Multi-camera setups	KOMPSAT	
Scanned Films	Pléiades	

PRODUCTION STATISTICS

SAMPLE PROJECT		PROCESSING TIME	
Number of Images	1,000	Aerial Triangulation	2.1 hours
Image GSD	20 cm	DSM	36 hours
Frame Size	150 MP	DTM	0.3 hours
DEM Resolution	60 cm	Orthophotos	3.2 hours
Orthomosaic Resolution	20 cm	Orthomosaic	8 hours
Number of PCs	1	Total	49.6 hours

SYSTEM REQUIREMENTS

- Nvidia GTX 770 or higher
- Intel i7
- 6GB RAM
- Windows 7, 8 or 10 (64-bit)

DEMO

For a demonstration of Correlator3D™, please contact us at engesat@engesat.com.br.