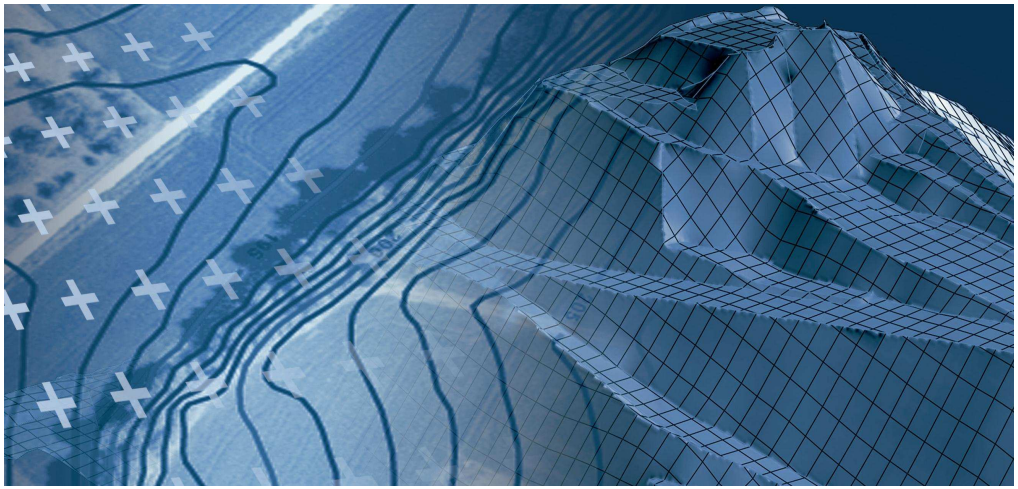
SCOP++

SCOP++ – well-proven performance for terrain modelling.

SCOP++ is designed for efficient handling of DTM projects, with data coming from LIDAR, photogrammetry or any other source. SCOP++ provides unsurpassed quality of DTM interpolation, filtering, management, application and visualization.



SCOP++'s flexible architecture allows for a variety of DTM operations and visualizations.

All modules of **SCOP++** are made for processing hundreds of millions of DTM points. With its integrated database system **SCOP++** is especially well-suited for very large DTM projects, up to nation-wide DTMs.

SCOP++ works with a very efficient hybrid DTM data structure and flexible, advanced interpolation methods. This guarantees rigorous consideration of break lines and qualified data filtering.

SCOP++ performs filtering of airborne laser scanning data for automatic classification of the raw point cloud into terrain and off-terrain points, i. e. for extracting the true ground points for further DTM processing. It uses efficient robust interpolation techniques with flexible adaptation to terrain type and terrain coverage.

Numerous DTM applications are covered, like contouring, hill-shading, profiling, volume calculations, or slope analysis.

A complete solution for powerful filtering, classification, quality control and editing of LIDAR data is offered with LIDAR Box, consisting of SCOP++ Kernel, SCOP++ LIDAR and our DTM editing station DTMaster.

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Features

- *With its task-oriented modular structure, SCOP++ can be easily adapted to customers' needs.*

- *SCOP++ Kernel*
  - *Precise DTM interpolation with or without filtering*
  - *Generation of DTMs consisting of up to one billion (10⁹) points*
  - *Data densification and data reduction*
  - *Contouring with cartographic quality*
  - *Basic profiling*
  - *Flexible Z-coding and hill-shading*
  - *Integrated raster and vector graphics*
  - *Combination of geo-referenced raster graphics (e.g. digital map) with DTM views like hill-shading or contours*
  - *Interpolation of check point elevations*

- *SCOP++ LIDAR*
  - *Filtering of air-borne laser scanning data for automatic classification of the raw point cloud into terrain and off-terrain points, i.e. for extracting the true ground points for further DTM processing*
  - *Efficient robust interpolation techniques with flexible adaption to terrain type and terrain coverage*
  - *User-controlled hierarchical process using point cloud pyramids*
  - *Elimination of gross errors in any DTM data*

- *SCOP++ Analyzer*
  - *DTM algebra (including difference DTMs)*
  - *Volume computation*
  - *Profiling, cross-sections*
  - *Digital slope models and slope maps*
  - *Mosaicking and feathering of overlapping DTMs*

- *SCOP++ Visualizer*
  - *Perspective DTM views in form of raster graphics generated by SCOP++ Kernel, or of wire-frame models*
  - *Panoramic views with annotation of geographic names*
  - *Silhouette views*

- *SCOP++ TopDM*
  - *Topographic Data Management designed for storing, managing and archiving nation-wide digital elevation information*
  - *Geocoded relational data base*
  - *Georeferencing (map projections and coordinate transformations, geodetic datum transformations)*
  - *Management of DTM data: DTM selection and export; merging DTMs; extracting parts from DTMs; DTM resampling*
  - *On request: interfacing with ORACLE databases*

- *Supported formats:*
  - *Data: Winput, DXF, XYZ, ArcInfo Generate, LAS (ASPRS Lidar data exchange format), ASCII text file*
  - *Graphics: DXF, HPGL, TIFF, JPEG, PDF*
  - *DTM: SCOP DTM, ArcInfo Grid, XYZ, DTED, USGS SDTS Raster, USGS DEM Raster, VRML, Winput, DXF, Raw Binary, TIFF, SRTM, STL*

Benefits

- *Well-proven, advanced DTM technology.*

- *High productivity through effective, high-capacity data processing and batch processing capabilities.*

- *Suited for seamless management of nation-wide DTMs.*

- *Unsurpassed DTM quality through precise interpolation and filtering.*

- *Advanced modules available for pre- and post-processing of DTM data.*

- *Easy integration into any third-party workflow.*

Recommendations

- *High-end PC workstation*

- *4 GB RAM*

- *Windows Vista/XP/2000, 32 or 64 bit*

- *To complete the workflow of DTM processing, in addition to SCOP++, our product DTMaster is recommended for quality control and editing of DTM data.*