



BuildingReconstruction

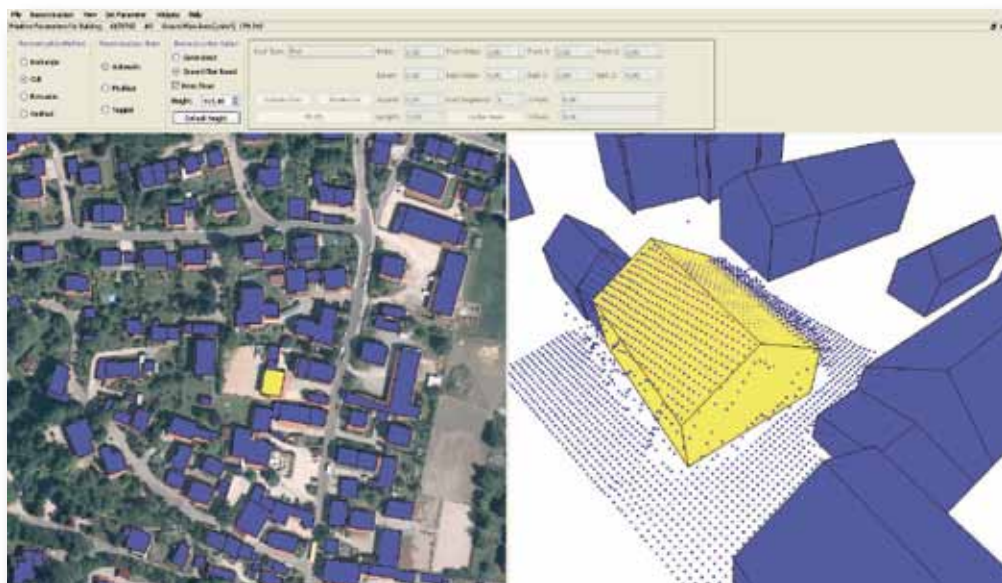
BuildingReconstruction

BuildingReconstruction is software for the automatic extraction of 3D building models from digital surface models. An efficient reconstruction process ensures a very high degree of automation in 3D building extraction when compared with photogrammetric solutions.

BuildingReconstruction is suitable for all users who want to efficiently create 3D building models from digital elevation models. The high recognition rate of the automatic reconstruction enables the correct capture of building geometry in most datasets. Post-processing of remaining building and roof structures is aided by a user-friendly editor that allows for semi-automatic or full manual editing. Buildings can be exported in 3D Shapefile or in Multi patch format.

Key Features

- High recognition quota during full automatic processing
- Roof library containing 28 main and connecting roof forms
- Editor for optimization of reconstruction results
- Configurable export of building geometry attributes such as roof height, slope

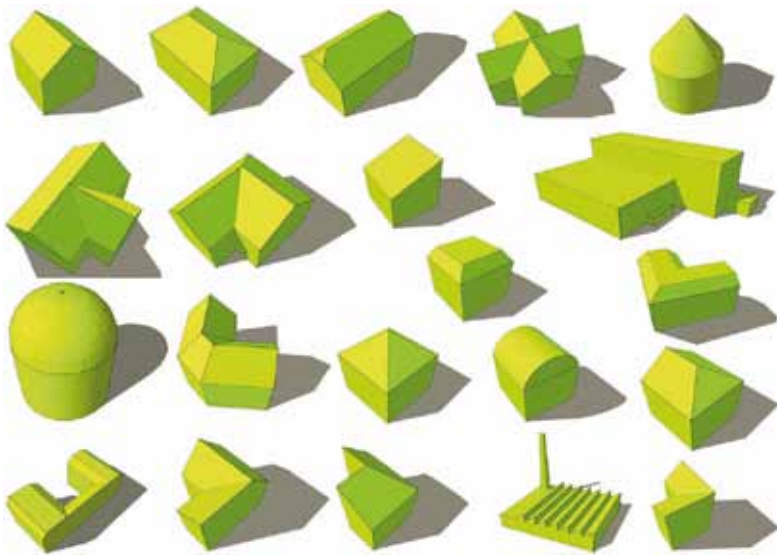


Creation of Building Models

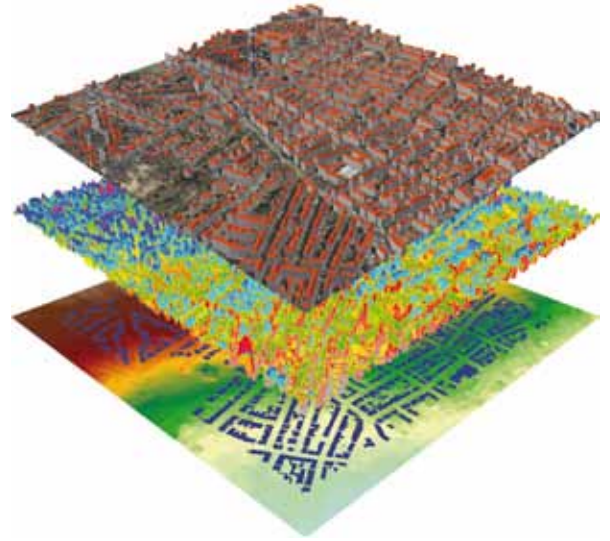
Building models can be automatically generated in Level-of-Detail 1 and Level-of-Detail 2 (LoD1 and LoD2). The software is programmed to create 3D building models to within 50 cm height accuracy.

Data inputs include 2D building outlines, a digital surface model (DSM) and a digital terrain model (DTM) from airborne LiDAR. Optionally, additional data such as orthophotography or other raster data can be imported for enhanced visual quality control.

Different processing methods (rectangle decomposition, cell decomposition and floor plan extrusion) several parameters and a 2D/3D window provide flexibility for semi-automatic and manual interactive editing to building geometry.



The roof form illustrations above are from the BuildingReconstruction roof library, which has been developed to improve the extraction of complex roof forms. These structures are the most common ones found around the globe, making BuildingReconstruction flexible software for GIS specialists everywhere.



References

BuildingReconstruction is continuously developed at our headquarters in Berlin. Over 1.5 million buildings models worldwide have been reconstructed with BuildingReconstruction, with an ever-growing community of end-users that include:

- /// Regional Survey Department of Bavaria
- /// Landeshauptstadt Dresden
- /// Infoterra Ltd., UK
- /// GEOINFO AG, Schweiz

Seven minutes to 3D Building Models - Trial Software Available

The software uses tiled input data, which allows for the automatic reconstruction of up to 3,000 buildings simultaneously. On average, processing time is between 7-12 minutes per tile. Contact us for a free 30-day trial version of BuildingReconstruction including demo data and an easy-to-follow tutorial.

More information about BuildingReconstruction can be found at www.virtualcitySYSTEMS.de

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