

# TreesVis

A LiDAR Software designed for forestry practices



## Key Features:

- Advanced real-time 3D-visualisation with fast 3D-engine
- Visualisation of rawdata (LiDAR-points) and rasterdata in geotiff format (DTM, DSM, nDSM, orthophotos, ...)
- Extraction of bare ground (DTM) and calculation of vegetation surfaces (DSM) with various methods (to fit differing terrain and vegetation conditions)

## RWB-format:

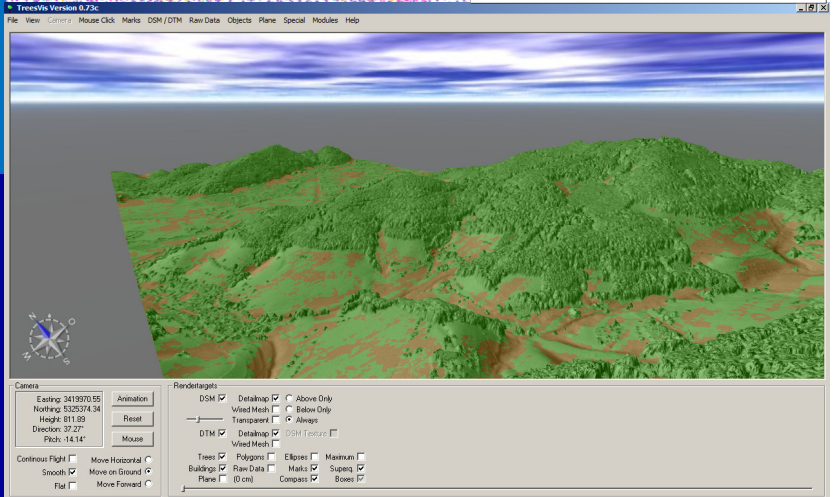
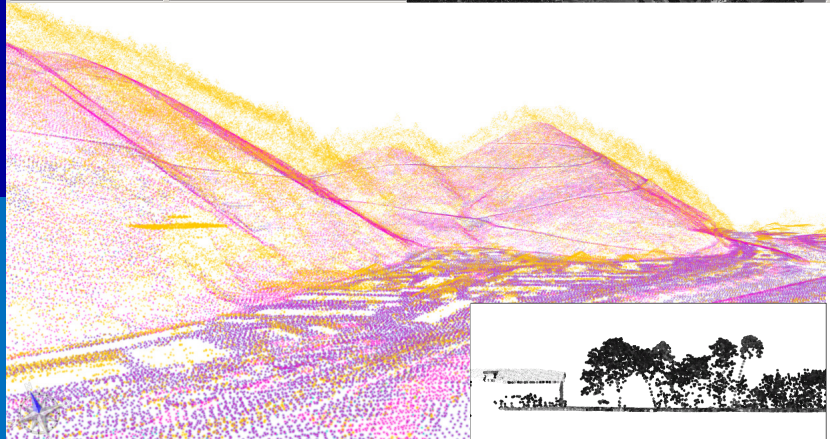
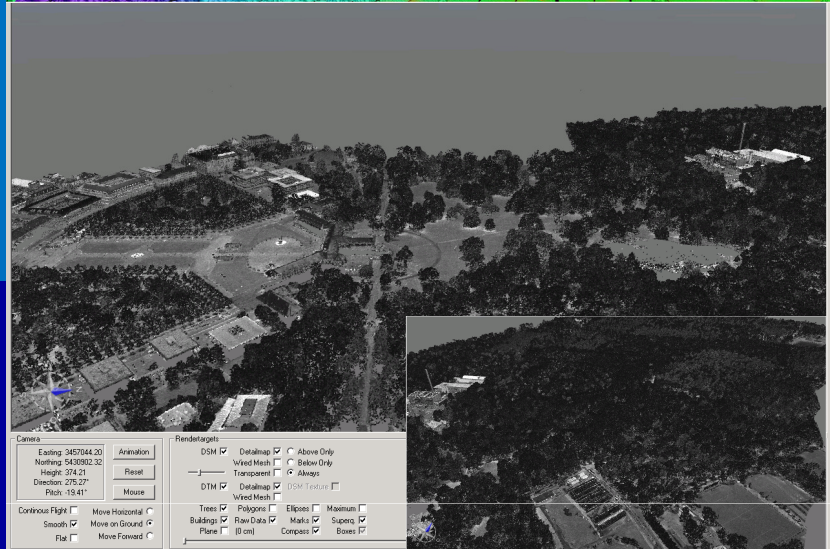
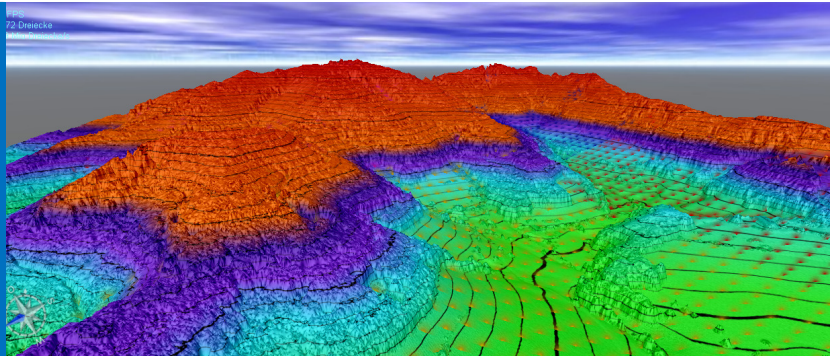
- Space saving, fast, binary format for LiDAR-data (x,y,z + optionally 7 additional values such as intensity, pulse, etc. )
- Import functions for las-format and ascii-files
- Export to ascii and xml format

## Various Tools

- Resampling of georasterfiles
- Creating transects
- Creating movies of 3D-flights through your data
- Visualisation of shapefiles
- Powerful rawdata calculator

## Extraction Modules: (available in combination with Halcon license)

- Extraction of forest stands
- Single tree delineation
- Extraction of canyons



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## What is TreesVis?

TreesVis is a powerful processing, analyzing and visualization software for LiDAR laser scanning data developed in C++. It can handle both airborne (fullwave data and common first/last-pulse data) and terrestrial LiDAR data. The software was developed with focus on the special purposes of forestry applications.

TreesVIS provides the comfort of a graphical user interface as well as the control of a shell-output to monitor the processing steps in detail. The GUI comes in common Windows style and provides comfortable access to the functions of TreesVis.

Users that acquire a TreesVis license have the opportunity to cooperate in the further development of the Software. Required or wished Tools can be planed and implemented exclusively or in the overall program.

## Key features:

<b>Working with rawdata</b> <ul style="list-style-type: none"><li>• Rawdata can be imported as ASCII or binary</li><li>• ASCII data can be easily converted into binary</li><li>• Export of rawdata to XML and ASCII</li><li>• Advanced functions to union sets of rawdata, filter or separate them relating to the DTM or DSM</li></ul>	<b>DSM and DTM extraction</b> <ul style="list-style-type: none"><li>• Extraction of DSM, DTM and nDSM (Difference DSM-DTM) data with customized settings</li><li>• Work with terrain adjusted methods for computation</li><li>• Tile function for large areas with huge amounts of data with arbitrary rectangular tile size</li></ul>
<b>Visualisation and navigation</b> <ul style="list-style-type: none"><li>• Real-time visualization of point data or DTM/DSM-surfaces in 3D</li><li>• Comfortable navigation through the data in 3D-view either by keyboard or by mouse or both simultaneously</li><li>• Adaptable view features like illumination or camera settings</li><li>• Recording of movies for presentations</li><li>• Setting of pointmarks in the terrain and retrieving of 3D-coordinates from every point</li><li>• Create transects through the terrain</li><li>• Separate loading of tree and buildings polygon data</li></ul>	<b>Special features</b> <ul style="list-style-type: none"><li>• Select the DSM/DTM area, that shall be extracted in a rectangle of arbitrary size and rotation angle. This option is important to save disk space.</li><li>• Excluding of existing building polygons that won't be considered in the DTM or DSM extraction</li><li>• Setting options for color, illumination and shadow of the DSM/DTM</li></ul>

## License

For the fall of 2010 and the upcoming years we introduce a new license system. University and research facilities can acquire a TreesVis license for a reduced price. Student versions are also available.

## Prices:

Student	Educational	Commercial
<i>Single User License:</i> Full Basic License without „Tile-function“ for one year – renewable after handing in a student identification document  50 €	<i>Single User License:</i> Full Basic License (incl. Tile-function) for research and educational use  500 €  <i>Lab pack (10 x Single User License):</i>  3000 €  <i>Campus License (unlimited number of Single User Licenses on the campus):</i>  10000 €	<i>If you are interested in using TreesVis on a commercial basis please contact us (see contact details below).</i>
<b>Additional Halcon Modules not included!</b>	<b>Additional Halcon Modules not included!</b>	