



## DTMaster

## Experience a new generation of DTM/LIDAR editing.

**DTMaster provides up-to-date technology for fast and precise editing of data for digital terrain models or digital surface models. DTMaster is a powerful DTM editing station with supreme monoscopic or stereoscopic viewing.**



*DTMaster is extremely powerful in visualization and editing of very dense point clouds.*

**DTMaster** offers optimized technology for efficient checking, editing and classification of DTM projects to the upper limit. It handles 50 million points with ease (and even more in the 64 bit version).

Further, **DTMaster** allows to underlay DTM data with thousands of orthophotos or complete blocks of aerial photographs. DTMaster supports DTM quality control by providing highly efficient data visualization and checking tools.

**DTMaster** is part of our complete solutions for DTM generation by photogrammetry or LIDAR:

DTM Box combines **DTMaster Stereo** with MATCH-T, our product for automatic DTM generation from aerial or satellite imagery.

LIDAR Box combines **DTMaster** with SCOP++ Kernel and SCOP++ LIDAR, our products for

advanced DTM processing and robust filtering of LIDAR data.

**DTMaster** is part of INPHO's modular system. It is delivered with ApplicationsMaster, the core of the system, providing a comprehensive collection of essential tools. For details see pages 32ff.

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## Features

- DTMaster efficiently handles large amounts of DTM data with access to 50 million points at the same time, and even more in the 64 bit version. Data are managed in an efficient layer-oriented data structure. Extremely fast and compact data handling is guaranteed through binary, tiled data storage.
- DTMaster provides a comprehensive set of efficient tools for quality assurance of DTM data, including data visualization, numeric plausibility checking, as well as interactive data editing and 3D measurement.
- Visual data checking:
  - Color Superimposition – DTM data overlaying raster imagery, such as
    - Stereo imagery with automatic selection of best-fit stereo image pair\*
    - DTMaster works with all stereo hardware supporting quad-buffer stereo. If quad-buffer stereo is not supported, it automatically switches to anaglyph stereo.
    - Orthophotos
    - Digital maps
  - Realtime brightness and contrast adjustment for raster imagery
  - Online contour generation
  - Perspective view with online 3D panning and draping of geo-referenced raster imagery
  - Hill-shading
  - Z-coding
  - Hatching of excluded areas
  - Freely rotatable lateral view for easy interactive classification of LIDAR data
- Automated plausibility checks:
  - Detection of lines with crossings, Z monotony errors or large distances in XY or Z, each with semi-automatic correction
  - Detection of height outliers
  - Detection of very close or identical points
  - Detection of gaps in a point cloud
- Automated data modifications:
  - Local filtering of point clouds from LIDAR or MATCH-T DSM for eliminating gross errors, as well as for separating points on vegetation or buildings.
  - Deletion of points close to lines
  - Thin-out algorithm
  - Deletion of identical points

- Data editing and measurement:
  - Editing in stereo-\*, ortho-, and lateral view
  - Broad range of powerful selection and snap modes
  - Efficient editing of points and lines
  - Stereoscopic measurement of points and lines\*
  - Interactive grid measurement\*
  - Various editing functions for polygon areas (classification, deletion, constant height setting, ...)
- DTM data formats (import/export): XYZ, DXF, Winput, SCOP DTM (import), LAS (ASPRS Lidar Data Exchange Format), MATCH-T XYZ, MATCH-T RAS, ArcGIS Shapefile, ArcGIS ASCII Grid, geocoded TIFF, BIL, FLT
- Support of aerial frame and pushbroom images, as well as various types of satellite imagery (Ikonos, Quickbird, WorldView, Spot, Landsat, IRS C/D, Aster, Cartosat).\*

## Versions

DTMaster is offered in two versions:

- DTMaster  
DTM/LIDAR editing workstation with monoscopic data viewing. It is the successor of our high-performance DTM editor GVE.
- DTMaster Stereo  
Digital stereoscopic measurement environment for absolute quality control, together with the complete functionality of DTMaster.

## Options

- Hardware:  
Optionally, INPHO provides all necessary hardware for DTMaster or DTMaster Stereo, including computers, monitors, stereo viewing systems and 3D cursors. Please contact INPHO for up-to-date information.

## Benefits

- Produces engineering quality DTM or DSM data.
- Highly comprehensive functionality with an efficient user interface for data viewing, checking and editing, suited for any user demand.
- Large amounts of data can easily be handled (more than 50 million points).
- Extremely fast data handling through optimized data structures.
- Does not require CAD or GIS system.
- Easy integration into any third-party workflow.

## Recommendations

- High-end PC workstation
- 4 GB RAM
- OpenGL graphics card supporting OpenGL 1.5 or higher
- High-capacity disk system
- Windows Vista/XP/2000, 32 or 64 bit

For DTMaster Stereo:

- Stereo-capable graphics card(s) supporting OpenGL quad-buffer stereo

- Stereo viewing system
- 3D cursor

Please note that quad-buffer stereo is currently not supported on Windows Vista!

\*feature included in DTMaster Stereo only

