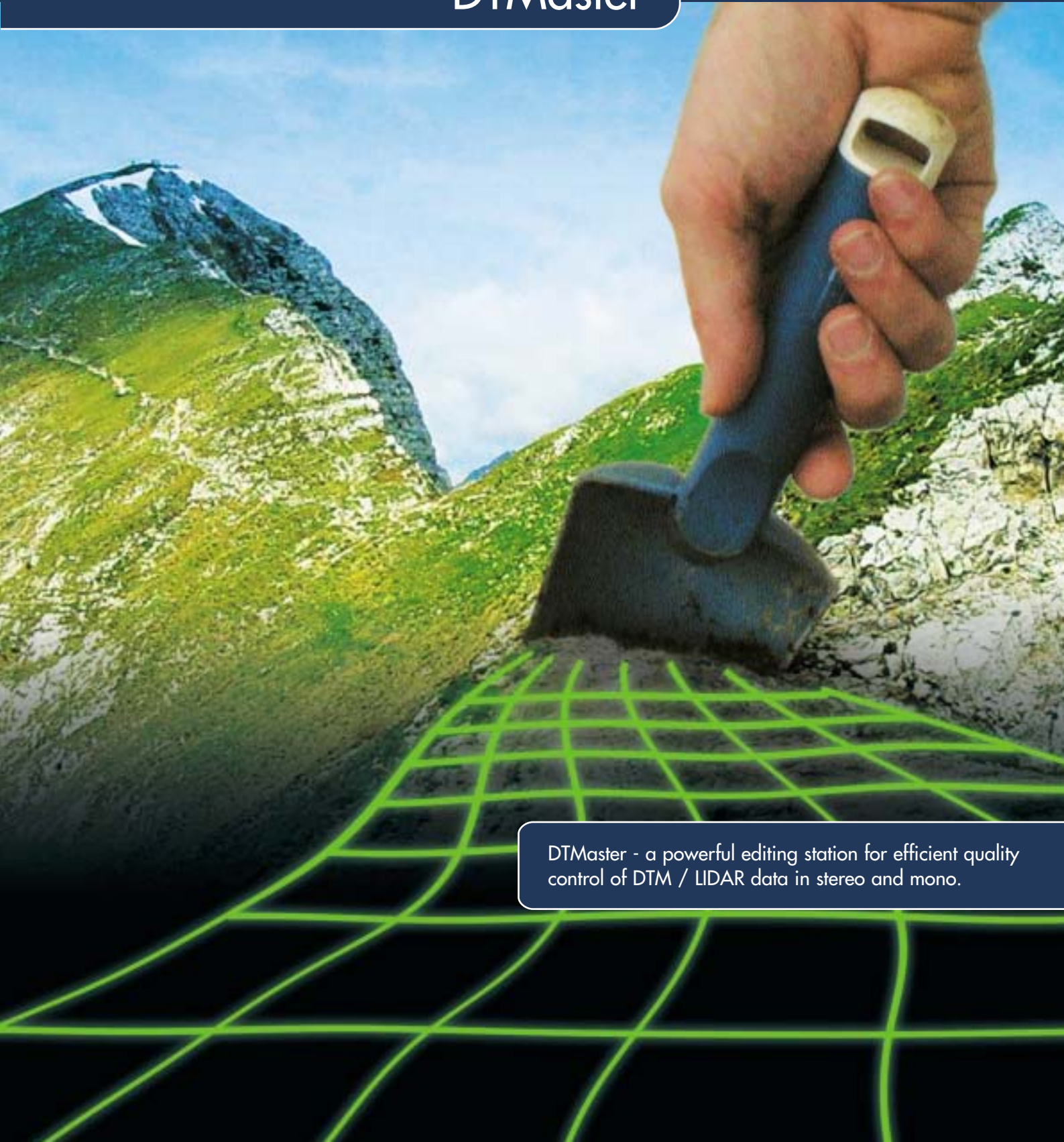




# DTMaster



DTMaster - a powerful editing station for efficient quality control of DTM / LIDAR data in stereo and mono.



*"It is today that our best work can be done and not some future day or future year. It is today that we fit ourselves for the greater usefulness of tomorrow. Today is the seed time, now are the hours of work, and tomorrow comes the harvest and the playtime."*

W.E.B Dubois

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

**DTMaster provides up-to-date technology for fast and precise DTM editing. DTMaster is offered as a monoscopic DTM data editor (DTMaster), or as a photogrammetric DTM editing station (DTMaster Stereo). DTMaster is part of inpho's digital photogrammetric system.**

**DTMaster** offers optimized technology for efficient checking, editing and classification of DTM projects to the upper limit. 10+ million points can easily be handled. It allows to underlay DTM data with thousands of orthophotos or complete blocks of stereoscopic aerial photographs. **DTMaster** supports DTM quality control by providing highly efficient data visualization and checking tools.

**DTMaster** is available stand-alone, or as part of complete solutions for DTM generation by photogrammetry or LIDAR:

DTM Box combines DTMaster Stereo with MATCH-T, inpho's product for automatic DTM generation from aerial or satellite imagery.

LIDAR Box combines DTMaster with SCOP++ Kernel and SCOP++ LIDAR, inpho's products for advanced DTM processing and robust filtering of LIDAR data.

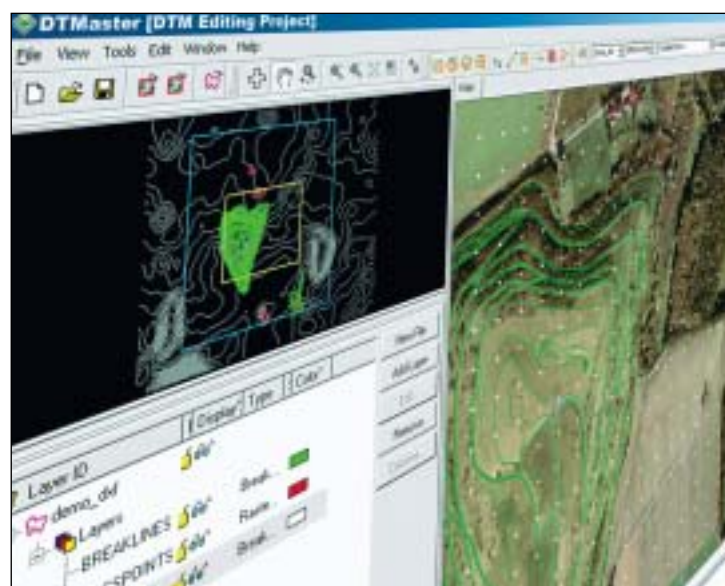
Image Capture

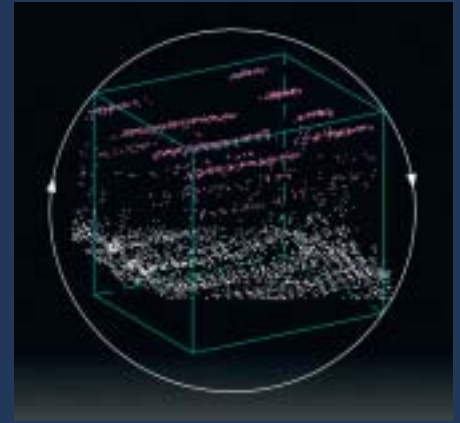
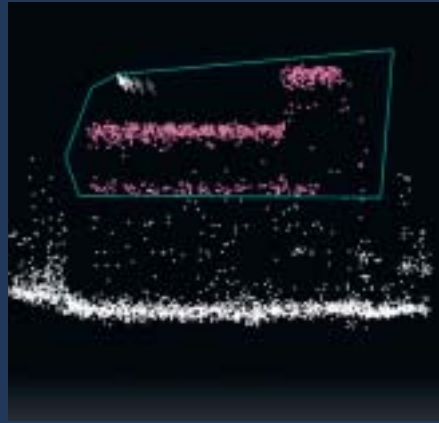
Aerial Triangulation

Data Capture

Terrain Modeling

Orthophoto Processing





## Features

- DTMaster efficiently handles large amounts of DTM data with access to 10+ million points at the same time. 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\*\*
  - Orthophotos
  - Digital maps
  - On-line contour generation
  - Perspective view with on-line 3D panning and draping of geo-referenced raster imagery
  - Hill-shading
  - Z-coding
  - Advanced side-view for easy interactive classification of LIDAR data, with on-line panning and axial rotation
- Automated plausibility checks\*:
  - Detection of line crossings
  - Detection of height outliers
  - Detection of gaps in a point cloud
- Automated data modifications\*:
  - Thin-out algorithm
  - Deletion of double points
  - Semi-automated correction of line crossings
- Data editing and measurement :
  - Editing in all views (stereo-\*\*, ortho-, perspective-, and side-view)

- Efficient editing of points and lines
- Stereoscopic measurement of points and lines\*\*
- Various editing functions for polygon areas (classification, deletion, constant height setting, ...)

DTMaster easily integrates into any production workflow by supporting numerous data formats:

- DTM data formats (import/export):
  - XYZ, DXF, Winput, SCOP RDH (import), LAS (ASPRS Lidar Data Exchange Format), MATCH-T XYZ, MATCH-T RAS, ArcGIS Shapefile
- Georeference raster formats (import):
  - E.g. orthophotos, digital maps
  - GeoTIFF, TiffWorld (tfw)
  - ERS (ER Mapper)
- Photogrammetric project data:\*\*
  - MATCH project, including:
    - Digital aerial photographs
    - 8-12-16 bit
    - TIFF, TIFF JPEG
    - ECW (ER Mapper)
    - Flexible custom sensor definition
    - Predefined DMC and UltraCamD sensors

## Versions

DTMaster is offered in two versions:

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

*DTMaster is extremely powerful in editing very dense datasets. Editing areas selected on top of orthophotos or stereo image pairs along with selection and editing in a freely rotatable view window makes even LIDAR data classification an ease.*

## Benefits

- Produces engineering quality DTM data.
- Highly comprehensive functionality for data viewing, checking and editing, suited for any user demand.
- Large amounts of data can easily be handled (10+ 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
- 1 Gbyte RAM or more
- High-capacity disk system
- Windows XP/2000
- Special hardware for DTMaster Stereo:
  - Stereo-capable OpenGL graphics card supporting quad-buffer stereo
  - Active or passive stereo viewing system
  - 21" monitor with 120Hz for stereo

*DTMaster is a trademark of inpho GmbH. All other brands and product names are trademarks of their respective owners.*

\* upcoming feature, \*\* feature included in DTMaster Stereo only

Image Capture

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