

ImageMaster - OFFICE SOFTWARE



Imaging Software

- Clear and easy user interface
- Combine Survey data, Pointclouds and Photogrammetric projects
- Manage multiple models using multiple source data
- Generate 3D models for measurement, mapping and interpretation
- Produce models with accuracies upto 0.4 mm

It's time.

Topcon's ImageMaster: seamlessly integrate digital imagery with 3D data measured using your chosen survey tool, be it Imaging Station, Laser Scanner or Digital camera. Topcon bring you the software solution to manage 3D data measured using our Capture Reality range of products.

ImageMaster gives you the tools to work directly with Imaging Station data using conventional Total Station observations and our value-added imaging capability, point-cloud data from the Laser Scanner and Photogrammetric projects using off-the-shelf digital cameras calibrated to become a measurement tool using our proven imaging technology.

ImageMaster's single software solution allowing you to process many data sources in one package means you will always have the right tool for the job.

Easy to use

- Simple graphical interface
- Automated measurement, orientation and calibration procedures
- Familiar windows environment

Easy to use tools quickly give you contour plots, surfaces, volumes or the 3D linework required to describe your site in detail.

ImageMaster has taken the proven photogrammetric functionality of the PI-3000 software and has improved data management to ensure that it is easy to create the deliverable you need. As easy as it is to collect the data in the first place.

The software combines a clean user interface and advanced mathematical processing for quick data modeling – accurate 3D models are produced with minimal preparation and specialist knowledge, yet the software is championed by experts too!



Features of ImageMaster



Designed to interface with the IS

Control the Imaging Station via WiFi and conduct your survey from the comfort of your office or site vehicle. Alternatively import data collected "onboard" and view this data with value added image information to enhance your site description.



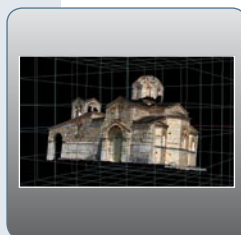
Easily combine and georeference models

Using Tie points or known survey stations combine multiple data sources into a single model, allowing you to maximize your efficiency on site by easily combining Conventional survey data with scanner pointclouds or information derived from digital photogrammetry.



Fast and easy bundle adjustment

Using powerful tie-point creation tools identify a minimum of 6 points in your stereo pairs. The software's bundle adjustment computes the model orientation allowing you to create coordinates from pixels.



ImageMaster Viewer

Photorealistic models are just a few clicks away and the free viewer software means that your clients can view your projects in an almost identical work environment.

System Components and Hardware Requirements

ImageMaster includes: Single user licence and USB Hardware lock

Options: 3D Monitor and 3D glasses for optimum stereo measuring

Hardware requirements: Survey Tool of your choice!
Imaging Station, Laser Scanner,
Digital Camera (recommended 6 MegaPixel)

Personal Computer with:

OS Windows2000, XP, Vista · **CPU** Intel Pentium or equivalent

Memory 512MB minimum · **HDD** 20GB minimum

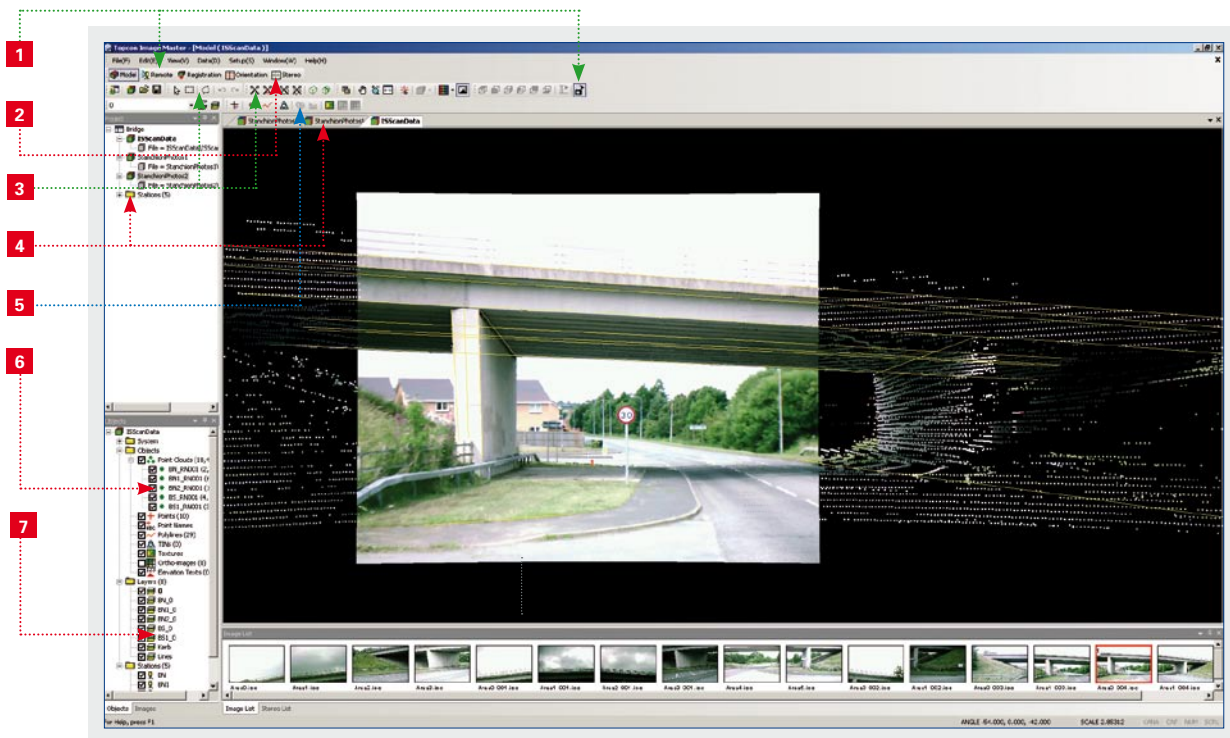
CDD 1 (for installer CD) · **USB port** 1 (for protection key)

Graphic Accelerator OpenGL support

Mouse with Scroll Wheel 1 (for the control of 3D model screen)

ImageMaster - 3D Data management and photogrammetric software

Easy to use, Imaging software for combining survey data, pointclouds and photogrammetric projects.



- | | | | |
|--------------------------------------|------------------------------------|---------------------------------|------------------------------------|
| 1 Many viewing options | 2 Photogrammetric tools | 3 Easy data manipulation | 4 Multiple model management |
| 5 Functional modeling options | 6 Simple project navigation | 7 Layered data | |

Image Master applications:

- Mining
- Aerial Photogrammetry
- Architecture
- Archeology
- Disaster monitoring/mapping
- Accident/crime investigation
- 3D modeling and visualization
- Civil engineering and Survey deliverables

The advanced features:

- Creating sections
- Creating contours
- Area and volume calculations
- Distance measurements
- TIN model generation
- 3D model rendering
- Ortho image support and a variety of exports including DXF, ASCII, VRML



It's time.

ImageMaster is available in three versions:

● **ImageMaster Pro**

ImageMaster Pro gives full access to Topcon's Capture Reality range and provides the tools to make Imaging effective in your workplace. Combine a GLS-1000, IS, 7000i and Digital camera with no limits, create 3D textured models or produce linework from stereopair photos. Draw elevations, compute volumes, create sections, measure areas; this software will meet most operators needs in a one-stop-shop. ImageMaster Pro replaces PI-3000 Pro and has the added value of the capability to deal with your scanned data.

● **ImageMaster STD**

ImageMaster STD is a simplified version of ImageMaster Pro, for handling and processing scanning data. Assuming you have no need for measurement from stereopairs or working with the 7000i series then this is the version you need. The rest of Pro's functionality is maintained in this version providing a very powerful software package for creating and editing models from scanned data.

● **ImageMaster for IS**

ImageMaster for IS is included with the Imaging Station specifically for allowing remote control collection and preparation of IS scan data for export to 3rd party software. Simple output to DXF, PTS or text delivers a working dataset for modeling in your software of choice.

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Version Features

	For IS	Pro	STD
IS Remote access control (Grid scan, point measurement, image capture)	X	X	X
DATA INPUT			
CSV	X	X	X
DXF, TIN	-	X	X
IS Scanning Data	X	X	X
GPT-7000i Standard Mode data	-	X	-
GPT-7000i Easy Mode data	-	X	-
Digital camera image data	-	X	X
DATA OUTPUT			
DXF,CSV	X	X	X
VRML, TIN	X	X	X
Ortho-Image	-	X	X
STEREO IMAGING			
Creation of Pass points	-	X	-
Bundle Adjustment	-	X	-
3D measurement by stereo image	-	X	-
3D VIEW			
Rotation, zoom in/out, colour, shading	X	X	X
TOOLS			
Creation and modification of points, polylines	X	X	X
Generation of TIN	X (*1)	X	X
Modification of TIN	X (*1)	X	X
Contour line, Cross section	-	X	X
Texture mapping	X(*1)	X	X
Creation of Ortho-image	-	X	X
Distance measurement	X	X	X
Area calculation	-	X	X
Volume calculation	-	X	X
PROJECT SETTINGS			
Camera calibration	-	X	X
Coordinate transformation	X	X	X

*1 Only data collected using the IS



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