HYDROpro Terramodel HDMS

Postprocessing and 3D Visualization Software

Trimble's HYDRO*pro*™ Terramodel® Hydrographic Data Management System (HDMS) software is a powerful postprocessing and 3D visualization software package for the marine surveying and construction industry.

The software allows you to do all the necessary calculations, quickly and easily produce final plots, generate contours, calculate volumes, and even 3D 'fly throughs' of your data collected with the HYDRO*pro* software.

### Fast, accurate data processing

Full drafting functionality, plan form design, and plan plotting is available so you can create an intelligent model from HYDRO*pro* software data or from a simple ASCII points file and generate an entire map in seconds. Points and lines are automatically placed for you where you want—all in a single easy step.

The HYDRO*pro* Terramodel HDMS software uses a 3D database with unique point descriptor, so you can perform highly-accurate and fast survey calculations. All traditional survey coordinate geometry calculations procedures are also available.

The HYDRO*pro* Terramodel HDMS software generates contours quickly and in one step saving you time and money. You can cut cross-sections anywhere that you want them. You can also visualize the surface in 3D color and rotate it using a mouse.

The most complete and powerful DTM surface design tools available today are included, enabling you to calculate accurate volumes without having to cut cross-sections. You can experiment with different channel or breakwater alignments to find the perfect design. You can also produce volumes quickly and accurately from large data sets in just a few seconds.

Complete plans by Terramodel
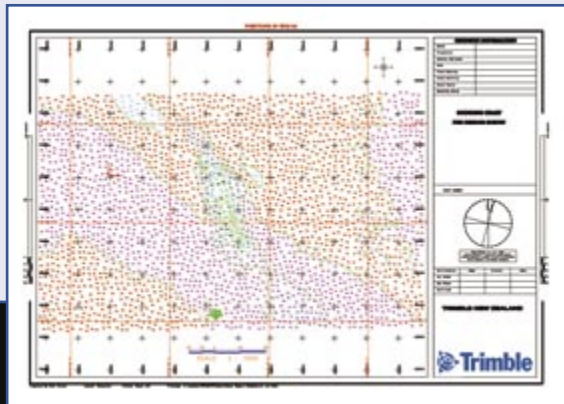
3D animations of a channel by Visualizer
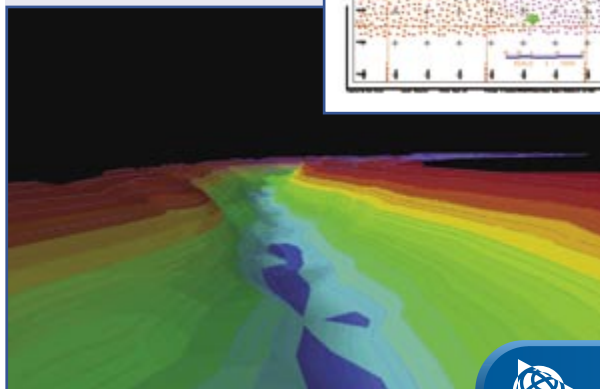
The Automated Sheet Assembly and Production (ASAP) module allows you to dramatically increase the speed and accuracy of the finished plan production for alignment-based sheets by using its powerful drafting automation features.

Optional modules to further automate and visualize your work

The optional Channel module provides you with 'drag-and-drop' design vertical alignment and definition of channel shapes and templates, allowing you to easily adjust and immediately visualize and 'walk' down a channel or sea-wall design.

The Terramodel Visualizer software is a very strong marketing tool that you can use to show clients how an existing surface or proposed design will actually look by generating and viewing 3D color perspective views from any DTM surface. You can then create and record a video 'flight path' along a 3D surface and 'fly' down it.

The HYDRO*pro* Terramodel HDMS software is ideal for hydrographic surveyors who require an integrated survey, CAD, drafting, and surface modeling tools all in one package.

Key features and benefits

- Adds a new level of reporting and data presentation to the HYDRO*pro* software
- Quickly create an intelligent model and generate an entire map using large data sets
- Create contours and volumes faster and more accurately
- Experiment with many different layouts
- View projects as interactive 3D models

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HYDRO*pro* Terramodel HDMS

Postprocessing and 3D Visualization Software

Applications
- Hydrographic surveying
- Dredging surveys and volumes
- Multibeam data processing
- Marine and land construction design

Features

CAD Module
- Data can be imported from the HYDRO*pro* NavEdit software, ASCII, DGN, and AutoCAD DXF and DWG files
- Large data sets from the HYDRO*pro* software can be easily imported into layers
- Hydrographic plotting format supported
- Thinning of large data sets
- Data can be exported in AutoCAD DXF and DWG formats

COGO Module
- All calculations are made in the HYDRO*pro* Terramodel software point-based engine, which provides unequalled accuracy and speed
- All traditional survey coordinate geometry calculation routines are available
- Exclusive HYDRO*pro* Terramodel object snap modes for point, bearing, distance, angle, and vertical angle add functionality to all COGO commands, while making this module easier to learn and use
- Conversion of coordinate point data between more than 600 coordinate systems

Contour Module
- Surfaces created by forming a Triangulated Irregular Network (TIN)
- Simple one-step contour generation
- Faster contour generation than in packages that require a CAD host
- Cross-sections cut anywhere you want
- Points created at a specified grid interval from a Digital Terrain Model (DTM)
- Average end area volume calculations
- Surface visualization in 3D color

Site Design Module
- Graphical movement of a design
- Automatic update of cut and fill volumes and slopes
- Volumes produced from large data sets in seconds
- Volumes determined from between two DTM surfaces, from a DTM to a known elevation, or from an existing depth layer

Automated Sheet Assembly and Production (ASAP) Module
- Automatic creation of drawing sheets complete with drawing information such as titles, labels, and dynaviews (split views)
- Customization of plan sheets to follow your normal drafting standards and drawing formats
- Project information stored in the file so that data edited is automatically updated throughout the project
- Easy manipulation of sheets and associated text references and notes
- Automatic update of the drawing index

Channel Design Module (optional)
- 'Drag-and-drop' design alignments
- Pre-set constraints and design requirements
- Definition of existing natural surface and subsurfaces based on cross-section measurements or from imported DTMs
- Preset constraints and design requirements to be automatically applied
- Definition of channel templates
- Automatic generation of volumes and volume reports
- Automatically generation of finished cross-section plot sheets with labeling and area and volume quantities

Terramodel Visualizer
- Color-coding of 3D by elevation to give extra depth and clarity to the true definition of the surface
- Rotation of the 3D surface for optimum viewing from any angle with the click of a mouse
- View a portion of the DTM surface in 3D by simply selecting the appropriate area
- Create and record a video flight path along a 3D surface. The video is a standard AVI file for repeat viewing

Technical Specifications

Minimum Configuration

Processor	Pentium II 300 MHz
RAM	128 MB
Hard drive	4 GB
Monitor	SVGA 1024 × 768
Data devices	CD-ROM drive
Operating system	Windows NT, 2000, or XP Professional

Ordering Information

Terramodel HDMS	Part Number 44260-00
Terramodel Visualizer	Part Number 44261-00
Channel Design module	Part Number 45164-00

For further information contact your local Trimble office or representative. You may also visit our website at http://www.trimble.com.

Specifications subject to change without notice.

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