



## IMAGESTATION® DTM FOR GEOMEDIA®

Hexagon Geospatial's ImageStation DTM for GeoMedia (ISDG) is a set of tools working in the GeoMedia environment and with ImageStation Stereo for GeoMedia (ISSG) to collect and edit terrain data to generate surface files for photogrammetric, mapping, and engineering workflows. Having an accurate and up-to-date elevation data layer is critical for many applications, including orthophoto creation, topographic mapping, engineering design and analysis, transportation planning, flood hazard mapping, terrain analysis for vehicle mobility, viewshed analysis, flight planning and simulation, precision farming, soil analysis, change detection, and many others. Together with GeoMedia and ISSG, ISDG provides an alternative to CAD-based workflows for feature and DTM collection and editing in a GIS environment. Working in a GIS environment provides additional tools and capabilities such as spatial filtering, custom queries, spatial analysis, data validation, and more.

ISDG is a member of the ImageStation software product family, which provides an integrated end-to-end high capacity and high performance photogrammetric production solution. ISDG integrates with GeoMedia and other ImageStation modules such as ISSG, ImageStation Automatic Elevations (ISAE), ImageStation DTMQueue (ISDQ), and ImageStation OrthoPro (ISOP). ISSG provides interactive stereo collection of geomorphic features such as breaklines, obscured areas, and points. Collection boundaries can be digitized in GeoMedia or created from stereo model boundaries in ISSG. The geomorphic features are clipped to the collection boundaries and written to surface files by ISDG. ISAE then uses the geomorphic data from the input surface files to assist the matching process.

The points from the surface files created by ISAE can be loaded back into the GeoMedia environment by ISDG and edited in stereo using GeoMedia and ISSG. Finally, ISDG can update the surface files with the edited points. The resulting triangulated surface files are suitable for use by ISOP for orthorectification and mosaicking, GeoMedia 3D or ERDAS IMAGINE® for visualization and analysis, and GeoMedia Advantage or Professional for grid analysis. ISDQ can be used to supplement an ISDG workflow with DTM file format conversion, coordinate transformations, tiling, merging, basic 3D viewing, and QA/QC tools for assessing accuracy.

### TOOLS AND FEATURES

ImageStation DTM for GeoMedia:

- Provides project management tools to create, open, close, and delete DTM projects consisting of a set of surface files over a project area.
- Supports SQL Server and SQL Server Spatial databases through a GeoMedia read/write data server warehouse connection for creating, viewing, and editing DTM features in the GeoMedia environment.
- Supports reading and writing surface files in .dtm format, which is a double-precision Triangulated Irregular Network (TIN) format. TIN format is recommended for use in photogrammetric, mapping, and engineering workflows for efficiency and accuracy.
- Allows users to assign GIS features in GeoMedia to ISDG geomorphic categories of points, breaklines, and obscured areas. GIS features can be digitized in GeoMedia and in stereo using ISSG, or can be accessed from a warehouse connection to any supported GIS database.
- Accepts source GIS feature data in any coordinate system and is transformed on the fly by ISDG to the coordinate system of the DTM project.



- Offers the option to create new surfaces from boundary features such as project area or stereo model boundaries created in GeoMedia or ISSG.
- Presents a tool to add geomorphic feature data to new surface files. Incorporation of geomorphic feature data into surface files allows for a more accurate representation of the terrain surface for orthorectification and other uses, and as input to ISAE to assist with the matching process.
- Allows adding and removing of surface files from the DTM project.
- Provides tools to load and unload DTM data from surface files in the DTM project into the GeoMedia environment for review and editing in stereo using ISSG.
- Includes an option, when updating surface files, to triangulate or not triangulate as needed for input to orthorectification in ISOP or automatic matching in ISAE.
- Allows creation of surfaces for true ortho from GIS features for use by ISOP.
- Lets users view triangles and contours from surface files in the GeoMedia environment and in stereo using ISSG.
- Provides an environment for contours to be exported to a feature class for editing and printing.
- Includes the ability to calculate the cut and/or fill volumes between two surfaces (or between multiple pairs of surfaces) and create a report. The volumes can be calculated on the entire area of the surfaces or on selected area features.

## REQUIREMENTS

- GeoMedia Essentials, GeoMedia Advantage or GeoMedia Professional tier
- Recommended: GeoMedia Advantage or Professional tier, and ImageStation Stereo for GeoMedia
- SQL Server or SQL Server Express

## ABOUT POWER PORTFOLIO

The Power Portfolio from Hexagon Geospatial combines the best photogrammetry, remote sensing, GIS and cartography technologies available. Flowing seamlessly from the desktop to server-based solutions, these technologies specialize in data organization, automated geoprocessing, spatial data infrastructure, workflow optimization, web editing, and web mapping.

The Producer Suite enables you to intelligently author, analyze, process, and map multiple sources of data.



## ABOUT HEXAGON GEOSPATIAL

Hexagon Geospatial helps you make sense of the dynamically changing world. Known globally as a maker of leading-edge technology, we enable our customers to easily transform their data into actionable information, shortening the lifecycle from the moment of change to action. Hexagon Geospatial provides the software products and platforms to a large variety of customers through direct sales, channel partners, and Hexagon businesses. For more information, visit [www.hexagongeospatial.com](http://www.hexagongeospatial.com) or contact us at [marketing@hexagongeospatial.com](mailto:marketing@hexagongeospatial.com).

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