HEXAGON
GEOSPATIAL

Hexagon Geospatial's ImageStation Stereo for GeoMedia is a Geographic Information System (GIS)-based compilation environment that produces more feature data in less time than ever before. This high-performance software captures photogrammetric 3D data using aerial and satellite, mono or stereo imagery in a GIS environment. Z extraction from mono source imagery is via underlying surface files. With ImageStation Stereo for GeoMedia you can display and manipulate stereo imagery, use image enhancement tools, and smoothly roam in stereo with photogrammetrically accurate 3D cursor tracking and stereo vector superimposition. Based on GeoMedia, ImageStation Stereo for GeoMedia supplies tools for interactively collecting and updating geometry and attributes of map features, as well as enabling automatic attribution and geometry validation. The generated data is stored in an open database, which enables third-party GIS systems to access it for any geospatial application and map revision.

STEREO CAPABILITIES AND VIEWING TOOLS

- Provides smooth stereo roam and dynamic zoom using ImageStation's ImagePipe technology, eliminating stop-and-go image roam performance and consequential operator fatigue
- Mono-plotter workflow (ortho source imagery) extracts Z coordinates from loaded surface files
- Enables dynamic, automatic raster enhancement, and includes additional enhancement tools for increased image clarity
- Allows easy traversing of stereo models using the mouse or keyboard, or by graphical selection in the map view
- Automatically moves the floating mark to a feature's XYZ location when snapping to it
- Offers display rotation for additional validation of vector data
- Supports synchronized panning of stereo and non-stereo map views for controlled feature capturing and verification

- Lets you switch between RGB and NIR-band display for increased flexibility when working with satellite and aerial imagery
- Supports 8-bit to 16-bit imagery with 1 to 4-bands

ADVANCED CAPTURING TOOLS

- Incorporates a monotonic collection mode to enforce vertical integrity of hydrologic features
- Provides 2D/3D snap functionality to avoid overlap when aligning neighboring objects of different heights
- Supports stereo cursor tracking of underlying surface files, providing more efficient operator movement during high-speed data capture of feature updates
- Enables display of 2D GIS data at the stereo cursor position in the 3D environment, enabling accurate update of 2D data

3D DATA COLLECTION ON A GIS PLATFORM

- Uses GeoMedia data servers to access common databases (Oracle® Spatial, SQLServer®, ArcSDE®)
- Offers compatibility with GeoMedia transaction management for coordinated multi-user access
- Supports data collection using existing GIS topology – requires no external interfaces for data import/export, which prevents loss of topology
- Enables data collection in stereo, eliminating building lean and other effects caused by relief displacement often found in ortho-imagery
- Supports GeoMedia queries and filters to control feature display, so you can view only the features you choose at any given time and optimize performance
- Validates feature connectivity and spatial relationships using GeoMedia spatial queries, which ensures the data you collect is accurate from the moment it is compiled
- Provides DTM point editing tools to delete, flatten, and change elevation within a polygon, or dynamically by "painting" while roaming; and to delete points while digitizing linear features

USER BENEFITS

- Optimizes workflow by directly performing stereo compilation in a powerful GIS environment
- Results in superior interpretation of image data compared to interpretation of a single image, avoiding costly relief displacement issues and saving time and money
- Enables you to display and report feature connectivity and review the relationship of one feature to another, which improves data integrity
- Reduces the cost of creating accurate, topologically correct 3D data, saving valuable time and resources
- Offers comfortable stereo viewing and measurement for greater productivity
- Allows you to collect data directly into commonly used databases, leveraging your investment in these technologies

ADDITIONAL OPTIONS

ImageStation DTM for GeoMedia, when used in conjunction with ImageStation Stereo for GeoMedia, provides a set of tools to collect and edit terrain data to generate surface files for photogrammetric, mapping, and engineering workflows. In a DTM workflow, ImageStation Stereo for GeoMedia provides the interactive stereo collection of geomorphic features such as breaklines, obscured areas, and points; digitization or creation from stereo models of collection boundaries; and stereo editing of elevation points. ImageStation DTM for GeoMedia provides DTM project management, creating surfaces from boundary and geomorphic features, loading DTM data into GeoMedia from surface files for editing, and writing surface files in Triangulated Irregular Network (TIN) format.

GI Toolkit and Feature Topographer, when used in conjunction with ImageStation Stereo for GeoMedia, provide even more flexibility to manipulate features and attributes, perform rule-based validation, control graphical displays, views, windows, and legends, generate reports, manage data exports, populate attributes and metadata, and clip and merge features.

Key components and features of Hexagon Geospatial's GI Toolkit and Feature Topographer include the following:

- Schema Rules & Symbols (SRS), a database-driven interface for the creation and maintenance of schema definitions, attribute-based rules, and graphical symbology
- GeoMedia view management commands to customize legend entries, provide an overview window, perform map window manipulation, and use feature and grid-based review tools
- Output tools for ASCII reporting, Microsoft® Excel reporting, and legend reporting
- Easy-to-use feature extraction tools centered on the powerful GeoMedia platform
- Advanced feature collection tools that have been engineered into the GeoMedia platform to facilitate feature extraction
- Customizable, descriptive user interfaces that support multiple languages
- Attribute and spatial validation performed at the time of data collection
- Automatic population of attributes based on other attribute values
- Calculation of horizontal accuracy of imagery based on user-supplied control points

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 or contact us at marketing@hexagongeospatial.com.

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