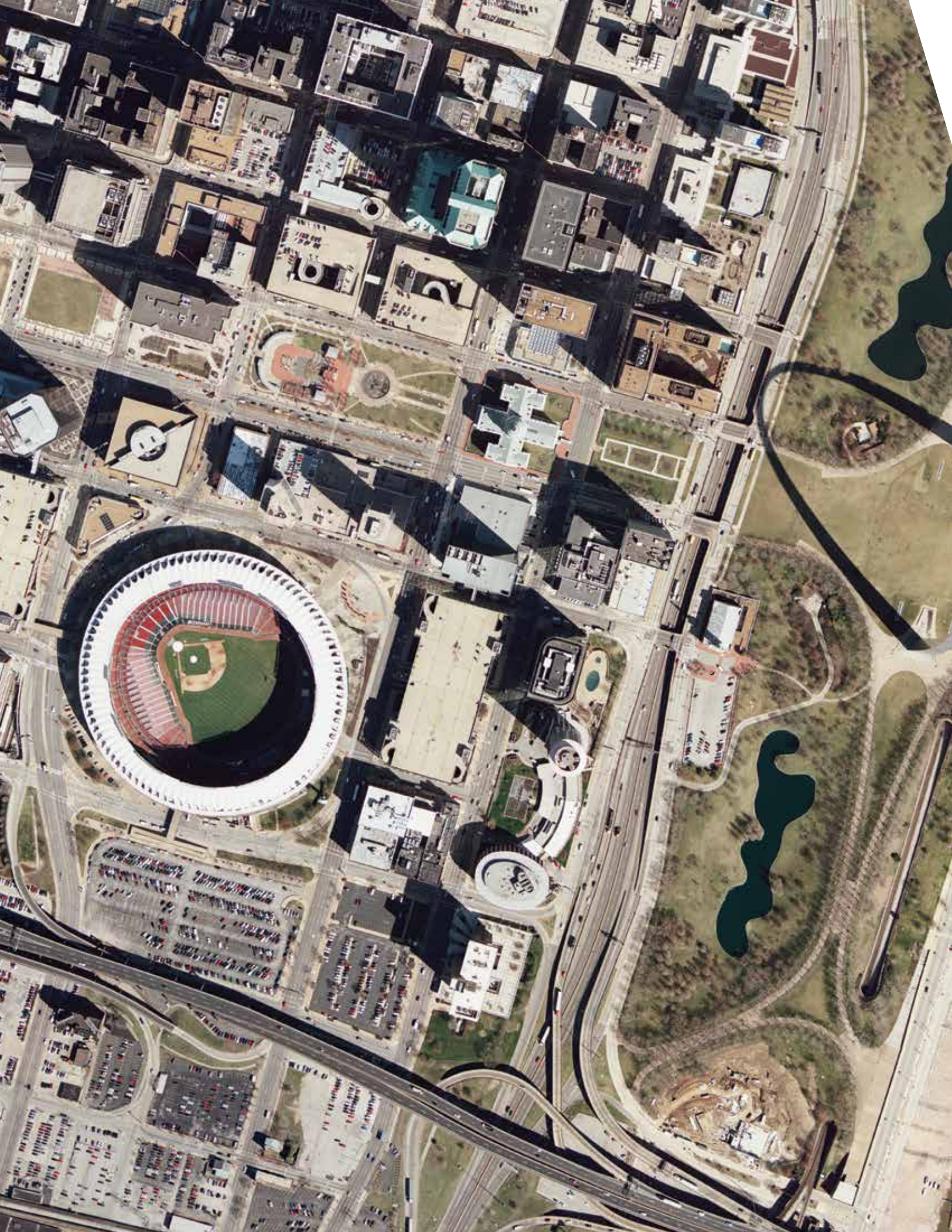
HEXAGON
GEOSPATIAL

PRODUCT BROCHURE

IMAGESTATION®

HIGH VOLUME PHOTOGRAMMETRY AND PRODUCTION MAPPING



UNPARALLELED PROCESSING, ACCURATE RESULTS FOR CAD AND GIS-BASED WORKFLOWS

The ImageStation software suite enables digital photogrammetry production workflows, including project creation, orientation and triangulation from aerial and satellite imagery. It provides stereo GIS feature collection and editing, digital terrain model (DTM) collection and editing, as well as orthophoto production and editing. ImageStation is specially designed to move large quantities of raw spatial information to an actionable or exploitable format for government, commercial photogrammetry, and mapping agencies worldwide.

OVERVIEW

Large orthophoto projects, such as the National Agriculture Imagery Program (NAIP), generally use multiple terrain elevation datasets with different formats and coordinate systems. Generating such large elevation surfaces is labor-intensive and time-consuming. ImageStation's simplified project creation and highly automated processing gets your projects up and running quickly.

Early verification of orientation and triangulation quality means less labor lost trying to fix problems later on in the process. GIS and CAD-based 3D feature collection and editing saves time by working directly with the native database. Digital terrain model (DTM) collection and editing ensure the accuracy of your elevation data with a few simple validation steps.

Dense matching with an SGM algorithm creates highly dense, highly accurate point clouds from your imagery, eliminating the need for more expensive data collection flights. Streamlined, multi-user orthophoto production using aerial and satellite imagery puts the power of state-of-the-art technology to work in creating planimetrically and aesthetically accurate orthophotos.

Using ImageStation within the GeoMedia context facilitates the creation of continuous, topologically accurate, and attributed map layers stored in a variety of open formats. This integration further enhances the process of creating and/or updating your GIS through the use of photogrammetric techniques which directly store your data as an asset within a corporate database.

Your ability to capture and maintain data is easier with ImageStation Stereo for GeoMedia. It focuses on GIS workflows, which allow you to create intelligent geographic features rather than merely place lines. Emphasis is placed on ensuring the accurate collection of the geospatial data the first time and reducing the need for time consuming cleanup or editing after data collection.

IMAGESTATION SOFTWARE SUITE COMPONENT APPLICATIONS

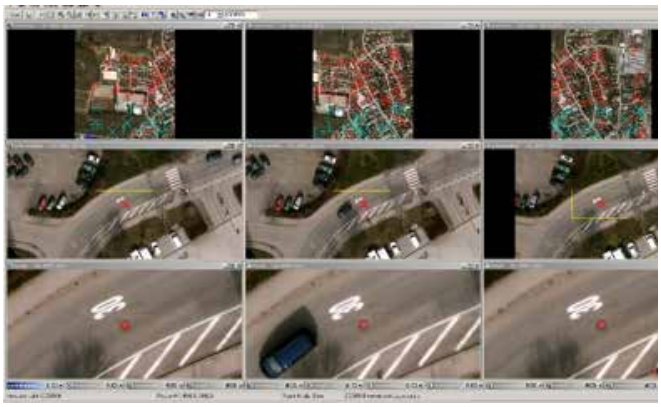
The ImageStation software suite is offered in component applications to allow customizing a solution to meet your specific production requirements.

PROJECT AND DATA MANAGEMENT

- ImageStation Photogrammetric Manager (ISPM) – Provides project setup and data management tools for photogrammetric production workflows, including automatic interior orientation, import/export of data, archive/restore projects, and more.
- ImageStation Image Formatter (ISIF) – Provides efficient, multi-threaded, 64-bit, local and distributed batch image reformatting, on-the-fly overview generation, and application of LUTs.
- HTCondor for Hexagon Geospatial – Provides simplified installation and configuration of the free open source HTCondor distributed processing system from the University of Wisconsin-Madison.

ORIENTATION AND TRIANGULATION

- ImageStation Automatic Triangulation (ISAT) – Provides fully automatic, high performance and high capacity aerial triangulation, including GPS/INS data processing, seamless POSEO support, camera calibration, graphical error analysis, efficient multi-photo point measurement with automatic point transfer, adjustment of satellite RPCs, and more.
- ImageStation Satellite Triangulation (ISST) – Provides simultaneous bundle adjustment of satellite imagery based on ephemeris data and orbital models.



ImageStation Automatic Triangulation provides fully automatic, high performance and high capacity aerial triangulation

FEATURE COLLECTION

- ImageStation Feature Collection (ISFC) – Provides interactive collection and editing of 2D and 3D map feature data and attributes in MicroStation, completely integrated with ImageStation Stereo Display and ImageStation DTM Collection.
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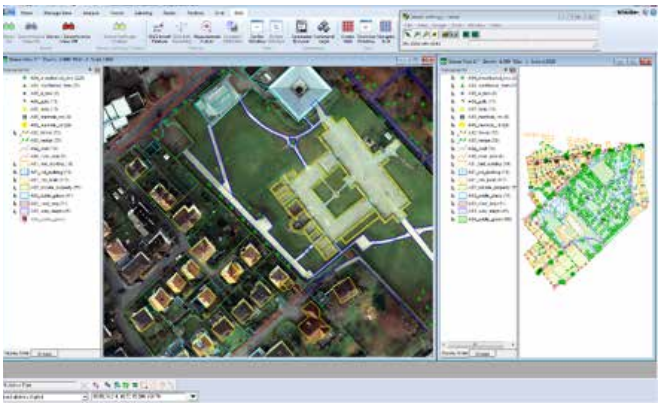
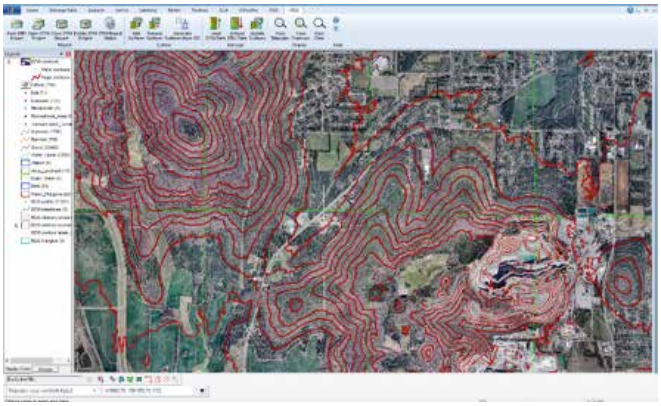
- ImageStation Stereo Display (ISSD) – Provides stereo image and vector display, photogrammetrically accurate 3D cursor tracking, on-the-fly image enhancement, smooth roam, and digital zoom in MicroStation, completely integrated with ISFC and ISDC.
- ImageStation Stereo for GeoMedia (ISSG) – Provides stereo image and vector display, photogrammetrically accurate 3D cursor tracking, interactive collection and editing of 2D and 3D feature data and attributes, on-the-fly image enhancement, smooth roam, and digital zoom in the GeoMedia GIS environment.
- ImageStation Stereo Viewer for GeoMedia (ISSV) – Provides stereo vector and image viewing, on-the-fly image enhancement, and 3D linear and area measurement for GeoMedia (no feature collection).

DIGITAL TERRAIN MODEL GENERATION

- ImageStation DTM Collection (ISDC) – Provides interactive collection and editing of DTM data, elevation points, breaklines and ortho geomorphic features; real-time dynamic editing, TIN and contour generation, calculate volume, and import/export elevation files, in MicroStation, completely integrated with ISSD and ISFC.
- ImageStation DTM for GeoMedia (ISDG) – Provides a set of tools working in the GeoMedia environment and with ISSG to interactively collect and edit terrain data to generate surface files for photogrammetric, mapping, and engineering workflows.
- ImageStation Automatic Elevations (ISAE) – Provides automatic generation of elevation models from aerial or satellite stereo imagery using hierarchical feature-based matching and local or distributed multi-threaded processing.
- ImageStation Automatic Elevations-Extended (ISAE-Ext) – is a superset of ISAE which adds Dense Surface Model (DSM) point cloud and raster generation from aerial imagery using Semi-Global Matching (SGM) and local or distributed processing.
- ImageStation DTMQue (ISDQ) – Provides a graphical workflow editor for batch processing to perform DTM format conversion, coordinate transformation, tiling, merging, thinning, clipping, triangulation, and QA/QC tools. ISDQ is a native 64-bit application for enhanced memory capacity and performance, and also allows for parallel processing of jobs.



ImageStation Stereo for GeoMedia provides high-performance stereo image display fully integrated with the feature collection and edit capabilities of a full-featured GIS



ImageStation DTM for GeoMedia provides interactive collection and editing of terrain data to generate surface files for photogrammetric, mapping, and engineering workflows

ORTHOPHOTO GENERATION

- ImageStation OrthoPro (ISOP) – Provides a complete orthomosaic solution including orthorectification, true ortho capability, adaptive radiometric enhancements (dodging, dehaze, ADRA), automatic seam line generation, semi-automated review and editing of seamlines, tone balancing, mosaicking, and geometric accuracy assessment. It automatically inputs data on-the-fly from different projections and datums, and integrates them into one mapping project. ISOP utilizes multi-threading and parallel processing to maximize throughput.
- ImageStation PixelQue (ISPQ) – Provides systematic quality review, mark up of problem areas, queued editing of marked problems, and enhancement of ortho mosaics.

ImageStation OrthoPro provides a complete solution for orthorectification, enhancement, automatic seam line generation, tone balancing, and mosaicking

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.

Hexagon Geospatial is part of Hexagon, a leading global provider of information technologies that drive quality and productivity improvements across geospatial and industrial enterprise applications. Hexagon's solutions integrate sensors, software, domain knowledge and customer workflows into intelligent information ecosystems that deliver actionable information, automate business processes and improve productivity. They are used in a broad range of vital industries. Hexagon (Nasdaq Stockholm: HEXA B) has more than 15,000 employees in 46 countries and net sales of approximately 3.1bn USD. Learn more at hexagon.com.