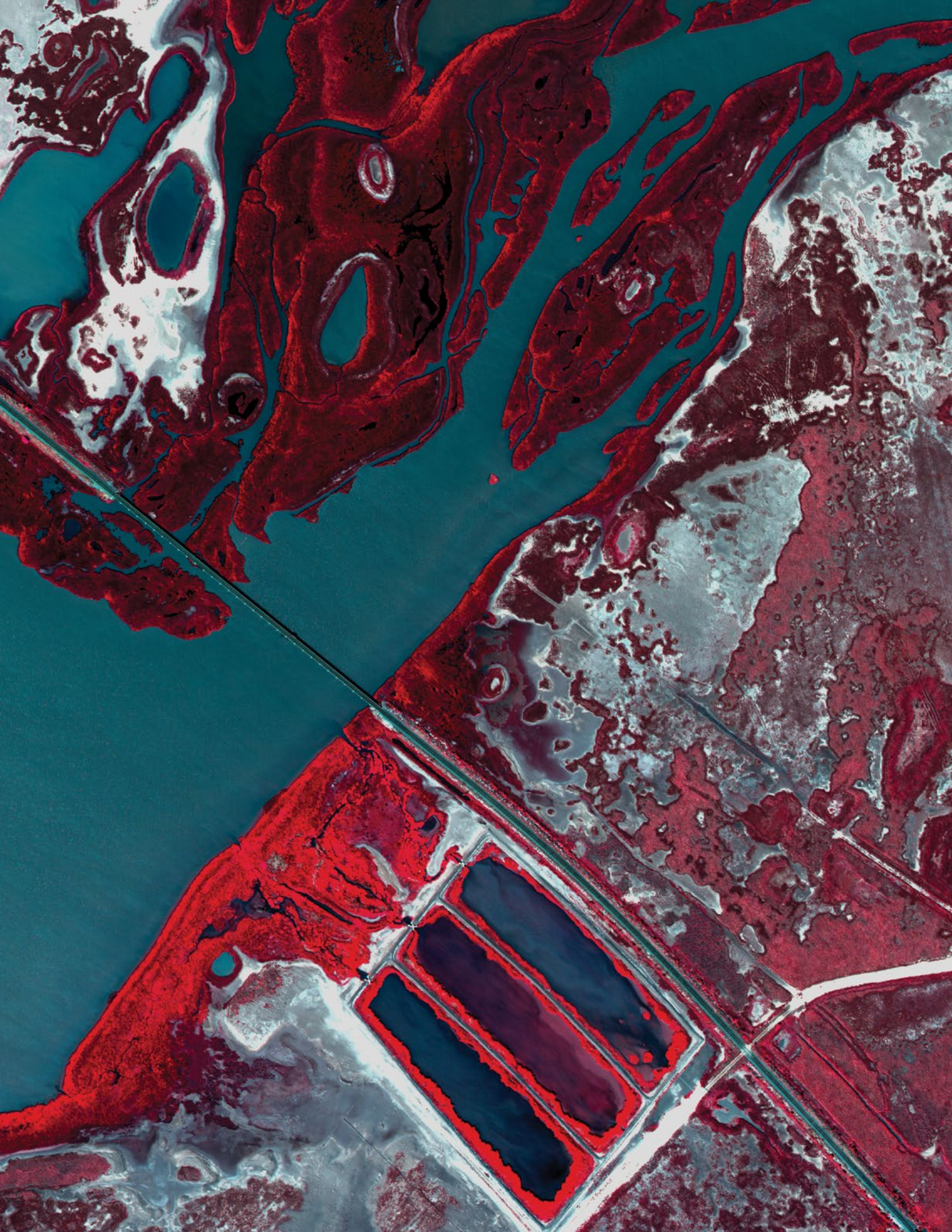
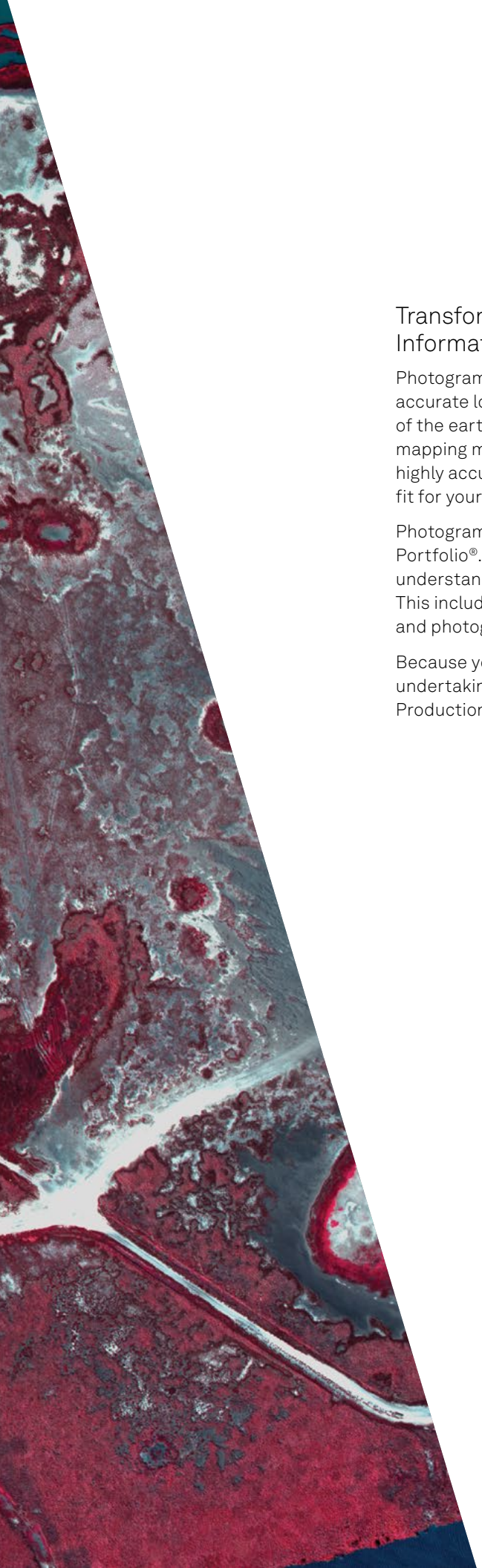
HEXAGON

Brochure

Photogrammetry

Specialized Products for a Variety of Organizations



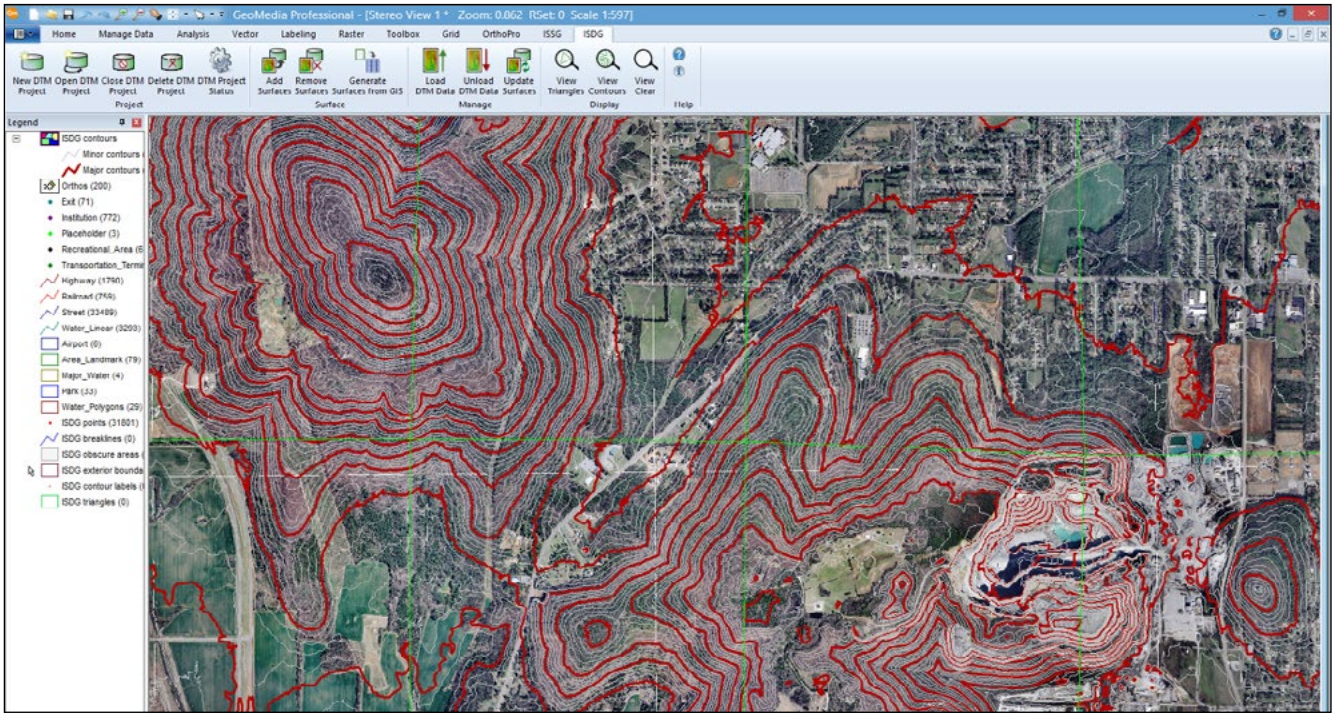


Transform Imagery from a Pretty Picture to a Highly Accurate Information Source

Photogrammetry - the art, science, and technology of connecting imagery to accurate locations on the earth's surface and creating accurate representations of the earth from remotely sensed data. Whether it be for huge, state-wide mapping missions, high-resolution imagery of a single 20-hectare project, or a highly accurate feature extraction, Hexagon's Geospatial division has the correct fit for your photogrammetry needs.

Photogrammetry Products are offered within the Producer Suite® of the Power Portfolio®. The Producer Suite empowers you to collect, process, analyze, and understand raw geospatial data, and ultimately deliver usable information. This includes Hexagon's Geospatial division desktop-based GIS, remote sensing, and photogrammetry offerings.

Because your needs vary so much depending on the type of project you are undertaking, Hexagon divided our offerings into three product categories: Production, Project, and Stereo Photogrammetry.



Digital Terrain Model collection and editing in ImageStation

Production Photogrammetry

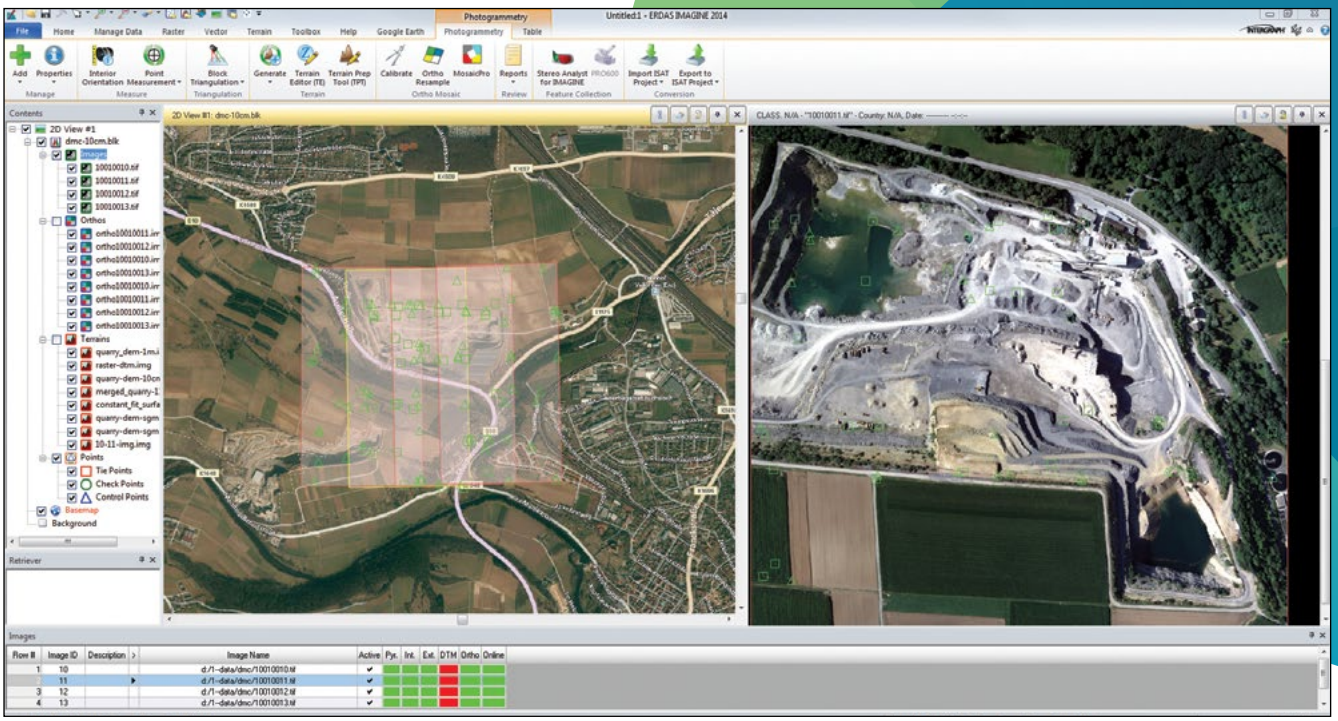
Production photogrammetry products are engineered to rapidly process massive volumes of incoming spatial data and to create or update large spatial databases. Designed to streamline the workflows of commercial and government photogrammetry and production mapping customers, these products facilitate the timely and accurate delivery of immense quantities of data.

ImageStation®

Designed from the ground up for high-volume photogrammetry and production mapping customers, ImageStation streamlines and automates processes while still supporting the most comprehensive photogrammetric workflow on the market. It is a photogrammetry factory, efficiently and powerfully moving large quantities of raw spatial information to an actionable and exploitable format. Simplified project creation gets your projects up and running quickly. Early verification of orientation and triangulation quality means less labor lost trying to fix problems. GIS- and CAD-based 3D feature collection and editing saves time by working directly in your 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 the Semi-Global Matching (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 and mosaic production using aerial and satellite imagery puts the power of state-of-the-art technology to work in creating planimetrically accurate and aesthetically pleasing orthophotos.

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 that directly store your data as an asset within a corporate database. ImageStation is offered in components, allowing you to customize your solution to meet your exact specifications.



IMAGINE Photogrammetry workspace includes easy to use project and layers panels and linked viewers as part of its integration with ERDAS IMAGINE

Project Photogrammetry

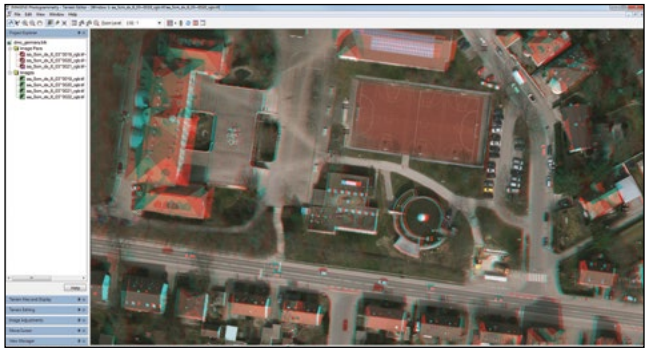
Project photogrammetry products are ideal for users who work with smaller quantities of raw imagery and varied types of data (such as raster, vector, GIS, LiDAR). These projects involve a wide variety of different data formats and sensors, and are generally set up as the first step of a greater processing workflow, including steps such as change detection or image classification.

IMAGINE Photogrammetry

A fully functional photogrammetry system packaged in a user-friendly environment, IMAGINE Photogrammetry provides results even for photogrammetry novices. Even though it is designed for a wide variety of users, it does not cut corners on either features or accuracy. State-of-the-art photogrammetry technology such as full analytical triangulation, digital terrain model generation, orthophoto production, mosaicking, and 3D feature extraction have been included in the easy-to-use environment. By automating precision measurement and including flexible operations such as terrain editing (including stereo) and feature extraction, IMAGINE Photogrammetry increases productivity while ensuring high accuracy.

Tight integration with ERDAS IMAGINE® means that this is the ideal photogrammetric package for projects involving varied types of data and further processing and analysis of airborne and satellite imagery.

IMAGINE Photogrammetry offers functional add-on modules that greatly expand its already powerful central capabilities. IMAGINE Terrain Editor facilitates the visualization, verification, and editing of Digital Terrain Models (DTMs) in stereo. Adding IMAGINE Auto DTM provides a choice of pixel correlation applications for creating high-density terrain and point clouds from stereo imagery.



Anaglyph can also be used to view in stereo if you don't have the hardware for true color stereo in IMAGINE Terrain Editor.

Stereo Photogrammetry

If you want to work within a GIS or CAD product (GeoMedia, ArcGIS®, MicroStation®) to extract features or edit maps or terrain using stereo image pairs, a stereo photogrammetry product might be ideal for you.

ImageStation

ImageStation Stereo for GeoMedia enhances the feature collection capabilities of GeoMedia by providing stereo image display with on-the-fly enhancement, smooth roam, and dynamic zoom with photogrammetrically accurate 3D cursor tracking and stereo vector superimposition. ImageStation DTM for GeoMedia extends ISSG's capabilities to include collection and editing of terrain data.

ImageStation Stereo Display, ImageStation Feature Collection, and ImageStation DTM Collection provide stereo image and vector display, feature collection and editing, and DTM collection and editing in the MicroStation environment.

ERDAS Extensions for ArcGIS®

ERDAS Extensions for ArcGIS® provide powerful stereo viewing, feature collection, and terrain editing capabilities within the ArcGIS environment. Stereo Analyst for ArcGIS furnishes you with a comprehensive toolbox for creating and revising a comprehensive database of feature data. Adding stereo visualization to your GIS not only improves the interpretation of images, but it greatly enhances the precision of feature collection, leading to greater accuracy in your resulting layers. Tightly integrated with ArcGIS, Stereo Analyst for ArcGIS enables stereo collection inside a familiar environment.

Two optional add-ons are offered that extend Stereo Analyst's functionality. ERDAS Terrain Editor for ArcGIS® enables you to update a Geodatabase Terrain file.

FeatureAssist for ArcGIS offers a great variety of roof structures you can collect in the Esri Multipatch format.

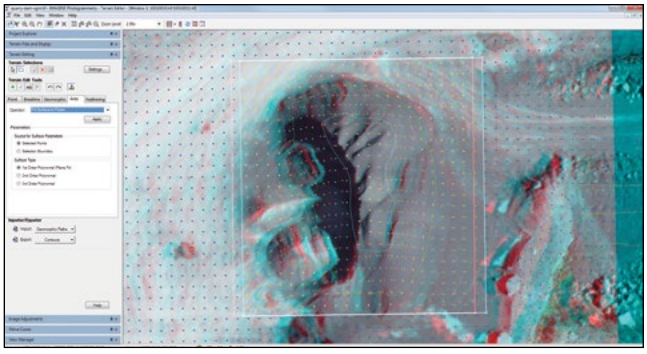
PRO600

PR0600 products are specially designed to optimize production-mapping organizations that use MicroStation. PRO600 CART enables 3D feature collection and editing in those environments, while PRO600 DTM provides

a variety of tools for terrain modeling. Both PRO600 products use technology including stereo viewing from our IMAGINE Photogrammetry product line, allowing CAD and GIS users to benefit from the robust, high-throughput capabilities that are trusted by mapping professionals worldwide.

A Product for Every User

Hexagon's Geospatial division offers a full range of photogrammetry products that afford ideal solutions for every type of photogrammetry customer. Whether your photogrammetric workflow involves rapid processing of large quantities of imagery, getting imagery ready for specific projects, or working within a separate GIS or CAD product, Hexagon provides a product geared to meet your requirements. All products in the lineup are backed by Hexagon's extensive background in remote sensing and photogrammetry and a proven track record of incorporating customer experience into product improvements. Combining this rich history and a laser-like focus on accuracy and high-throughput, Hexagon's photogrammetry products ensure top-notch results for any workflow.



Use the advanced editing tools in IMAGINE Terrain Editor and see your results in the stereo viewer.

Power Portfolio	Product & Interaction
Producer Suite	Open or create your Photogrammetry project directly in ERDAS IMAGINE with the IMAGINE Photogrammetry suite.
	Raster backdrops based on the ultra-fast ECWP streaming protocol may be directly consumed in ERDAS IMAGINE and IMAGINE Photogrammetry.
	ImageStation projects can be directly consumed in GeoMedia for ortho creation and mosaicking.
	Directly work on photogrammetry projects in GeoMedia with ImageStation Stereo for GeoMedia, ImageStation DTM for GeoMedia, ImageStation OrthoPro, and ImageStation PixelQue
	Use Stereo Analyst for ArcGIS to work directly inside your ArcGIS environment and collect models in a 2D/3D stereo viewer.
Provider Suite	Raster backdrops can be streamed, using the ultra-fast ECWP streaming protocol, by ERDAS APOLLO.
Platform Suite	ImageStation projects can be directly consumed in GeoMedia for ortho creation and mosaicking.
	PRO600 uses our fully integrated stereo viewer inside of MicroStation products supporting 2D/3D viewing and DGN feature collection.

HEXAGON

Hexagon is a global leader in sensor, software and autonomous solutions. We are putting data to work to boost efficiency, productivity, and quality across industrial, manufacturing, infrastructure, safety, and mobility applications. Our technologies are shaping urban and production ecosystems to become increasingly connected and autonomous — ensuring a scalable, sustainable future.

Hexagon's Geospatial division creates leading platforms, applications and solutions for visualizing, analyzing, and deriving insight from location data. By interconnecting the geospatial and operational worlds, we help customers of all sizes – from sites to cities to nations – use 5D location intelligence to solve real-world, mission-critical challenges.

From snapshots in time to real-time streams, our technology enables autonomous connected ecosystems that deliver reliable, repeatable location information. We shorten the loop from data acquisition to action, helping clarify what was, what is, what could be, what should be, and ultimately, what will be, so we can build a thriving, sustainable world.

Hexagon (Nasdaq Stockholm: HEXA B) has approximately 21,000 employees in 50 countries and net sales of approximately 4.4bn USD. Learn more at hexagon.com and follow us @HexagonAB.