

Leica HxMap

Fast and integrated
processing workflow



- when it has to be **right**

Leica
Geosystems

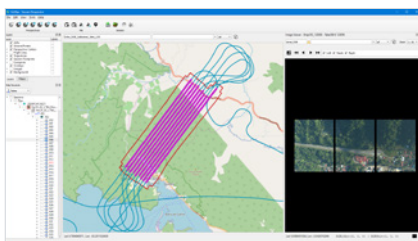
Leica HxMap – Fast, integrated processing workflow for airborne sensors

The increased need for up-to-date geospatial information demands rapid updates in the shortest possible time. Leica HxMap, the high-performance workflow for airborne sensors, offers an efficient and scalable post-processing platform that allows the generation of all airborne data products possible with today's advanced hybrid sensors. HxMap is designed to utilise modern multi-core CPU's from single workstations, compute clusters with thousands of nodes, or cloud providers, ensuring optimal turnaround time for projects ranging from small towns to entire countries.

Combined Data Acquisition & Processing

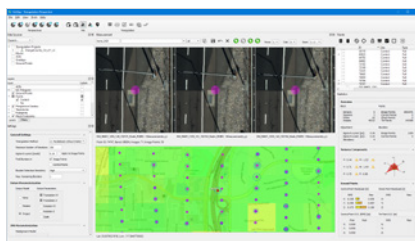
The post-processing has been closely integrated with data acquisition to achieve maximum efficiency and HxMap's functionalities can be tailored to individual sensor types. Leica Geosystems offers scalable software modules specifically designed for imaging, LiDAR, and hybrid sensor systems, ensuring flexibility in production. These modules support large-area mapping projects, imaging endeavours, and 3D city modelling applications. The modules include Provider, Core Image, Core LiDAR, Mosaic, 3D Modeler and 3D Advanced.

Modules for a Complete Workflow



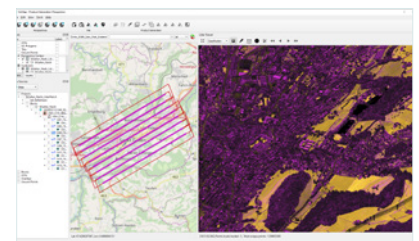
Provider Module

Download, ingest and QC your images and LiDAR point clouds from the sensor. Run blockwise radiometry and export aerial images for use in other photogrammetric software.



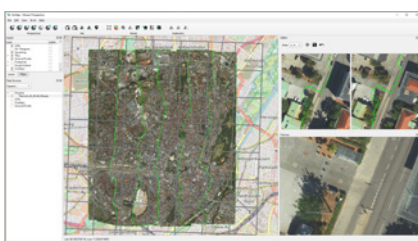
Core Image Module

Perform robust aerotriangulation for mapping projects. Extract colourised point clouds with semi-global image matching. Build DSM/DTM and rectify orthoimage products.



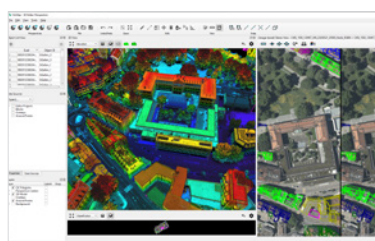
Core LiDAR Module

Solve LiDAR misalignment and match point clouds. Use advanced QC tools to analyse density, coverage, and accuracy. Generate colourised point clouds and DSM/DTM products.



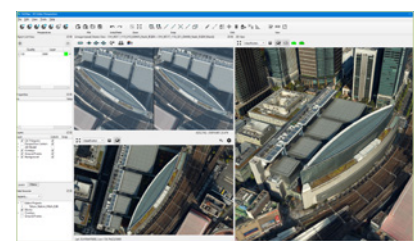
Mosaic Module

Create mosaics with tens of thousands of DTM orthoimages. Run smart seamline with exclusion areas to minimise manual editing efforts and apply feathering on final tiles.



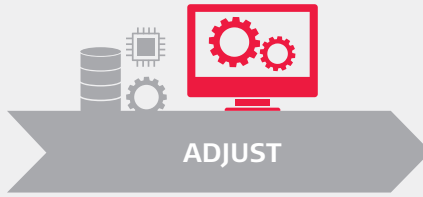
3D Modeler Module

Generate 3D building objects from LiDAR or image derived point clouds, with or without building footprints. Texture building objects with nadir and oblique images.



3D Advanced Module

Generate 3D textured meshes and true orthophotos with inputs from hybrid and image-only sensor systems. Achieve quality 3D reconstructions with aerial triangulation and LiDAR matching.



Leica HxMap Workflow Solutions

Sensor Type	Imaging Sensors	LiDAR Sensors	Hybrid Sensors
Enabler Sensor system specific enabler	■	■	■
Provider Module Workflow Manager/ Raw QC/Ingest	■	■	■
Core Image Module APM, Aerial Triangulation, InfoCloud, Ortho Generator	■	■	■
Core LiDAR Module AutoCalibration, Registration, Colour Encoding, Data Metrics, LiDAR QC	N/A	■	■
Mosaic Module Orthomosaic, Seamline Editor	These modules offer comprehensive workflows within HxMap, enabling the creation of advanced, high-quality geospatial data products in a unified environment.		
3D Modeller Module City Modeller, Texture Mapper, 3D Editor, Building Finder			
3D Advanced Module Mesh / True Orthophoto, 3D Editor			

■ = Included module N/A = Not applicable



■ SAVING YOU TIME & COST

Manage your data in one single interface to produce any airborne data product and save time on transferring data or training staff on different software packages.



■ UNPRECEDENTED DATA THROUGHPUT

Take advantage of the industry's fastest data throughput and process any amount of data more efficiently in one single post-processing software.



■ EASILY ADAPTABLE TO YOUR NEEDS

Customise the processing workflow to your specific application needs with module-based licensing that scales as your requirements grow.

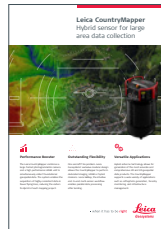
Leica Geosystems – when it has to be right

With more than 200 years of history, Leica Geosystems, part of Hexagon, is the trusted supplier of premium sensors, software and services. Delivering value every day to professionals in surveying, construction, infrastructure, mining, mapping and other geospatial content-dependent industries, Leica Geosystems leads the industry with innovative solutions to empower our autonomous future.

Hexagon (Nasdaq Stockholm: HEXA B) has approximately 24,000 employees in 50 countries and net sales of approximately 5.2bn EUR. Learn more at hexagon.com and follow us @HexagonAB.



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Leica CountryMapper
Hybrid sensor for large area data collection



Leica DMC-4
Precision, efficiency, versatility



Leica CityMapper-2
More information, smarter decisions



Leica TerrainMapper-3
One system, multiple LiDAR applications

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