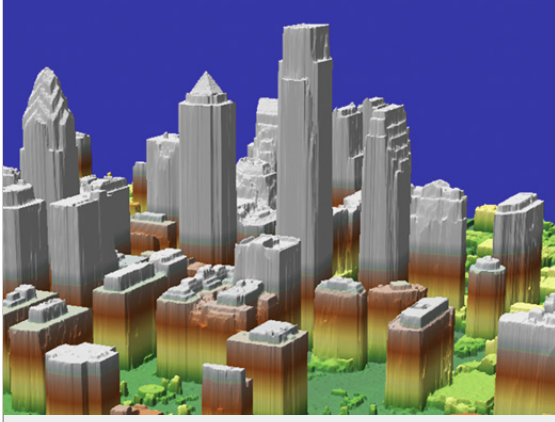
L3HARRIS®
FAST. FORWARD.

DENSE DIGITAL ELEVATION MODEL

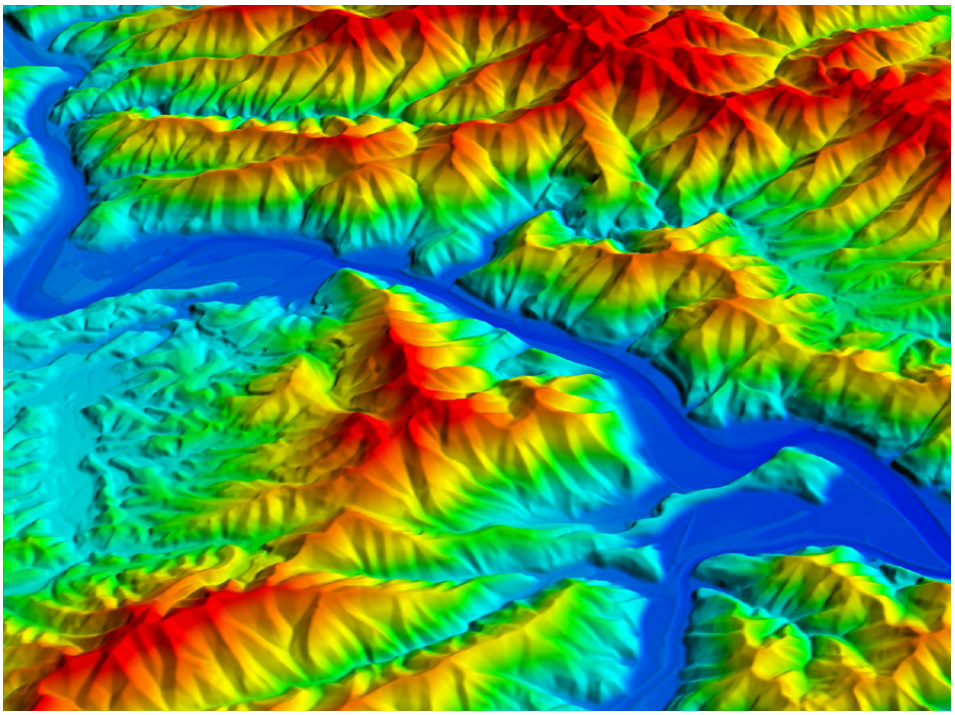


One source for all your elevation needs

L3Harris is an established leader in the creation of high-quality custom Digital Elevation Models (DEMs). Our expertise includes decades of advanced image processing algorithm development, as well as image analyst and photogrammetrist experience.

L3Harris can use a variety of data sources (satellite, aerial and LiDAR) to automatically process and produce high-quality, high-resolution and high-accuracy DEMs over large areas. The DEM process includes quality control and production of both Digital Surface Models (DSMs) and bare-earth Digital Terrain Models (DTMs). L3Harris has the proprietary tools and processing ability to register, mosaic and merge seamless products.

Clients in industries such as visual simulation, mapping, engineering and urban planning rely on L3Harris to deliver large-scale products (city and country-size projects and more). These products enable enhanced feature identification and exploitation and provide a well-established foundation for 3D modeling of areas of interest.



BENEFITS

- DEMs can be created from a variety of data sources like satellite, aerial and LiDAR
- DEMs are accurate and have high resolution
- Products can be large scale – city and country size
- Short cycle time
- Established and robust proprietary DEM extraction tool

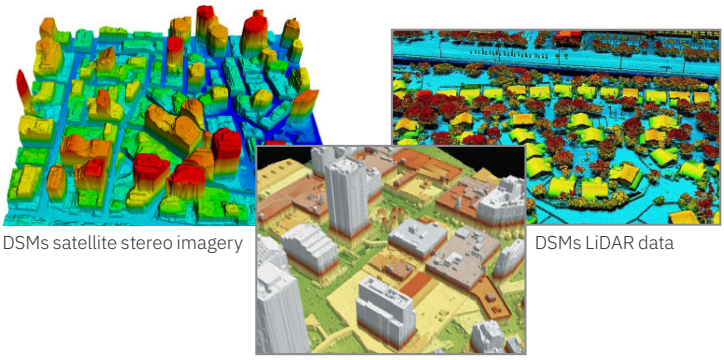
PRODUCT SPECIFICATIONS	
Post spacing	Commercially from 0.10m to 30m
Bit structure	32 bit floating, 16 and 32 bit integer
Available formats	GeoTIFF, DTED, HRTe and others
Geodetic datum	WGS-84, NAD83, NAD27 and others
Vertical datum	Ellipsoid, WGS84 Geoid, EGM96 Geoid, NAVD88 and NGVD29
Accuracy	Spatial accuracy of DEMs is based on the quality of source images, geographic location and distribution and accuracy of ground control points
Input sensors	Satellite, aerial, LiDAR, NTM and others

DIGITAL SURFACE MODEL

A DSM represents the Earth's surface and includes vegetation and man-made objects.

Key features:

- High-resolution DSM at one post per pixel
- High-fidelity DSM with sharp edges
- Smooth building and ground surfaces
- Utilization of multiple sources such as pseudo stereo and true stereo imagery simultaneously
- Hydro enforcement and road flattening
- High volume scalability using GRID processing computing power



DSMs satellite stereo imagery

DSMs LiDAR data

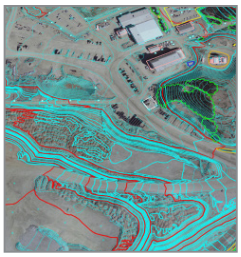
DSMs aerial stereo imagery

DIGITAL TERRAIN MODEL

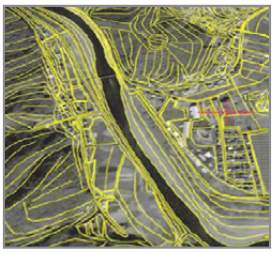
A DTM represents the earth's surface without objects like vegetation and buildings.

Key features:

- Highly accurate engineering-grade bare Earth DTMs
- Automated mass point generation and 3D break lines
- Hydro enforcement and road flattening
- Highly accurate contours derived from the DTMs
- High volume scalability using GRID processing computing power



DTMs with breaklines



DTMs with contour lines

For additional information, email geospatialdata@L3Harris.com

Dense Digital Elevation Model

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Nonexport-controlled Information

L3Harris Technologies is a Trusted Disruptor for the global aerospace and defense industry. With customers' mission-critical needs always in mind, our 46,000 employees deliver end-to-end technology solutions connecting the space, air, land, sea and cyber domains.

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