



Transform Satellite Imagery into Actionable 3D Geospatial Data

BrightEarth™ On Demand is a web-based AI-powered platform that allows you to generate 3D geospatial data on demand, from anywhere on the planet. Whether you need vector cartographic assets, segmented rasters, synthetic environments or GIS/CAD-compatible 3D files, BrightEarth provides the tools you need to turn satellite imagery into actionable data.



A 3D city model of Cartagena, Colombia. Image generated in Cesium for Unreal.

Key Features

Turn Satellite Imagery into Vector Cartographic Assets

Easily create vector files ready for mapping applications

Convert Satellite Imagery into Segmented Rasters

Extract detailed Land Use/Land Cover (LULC) raster data for high-level analysis

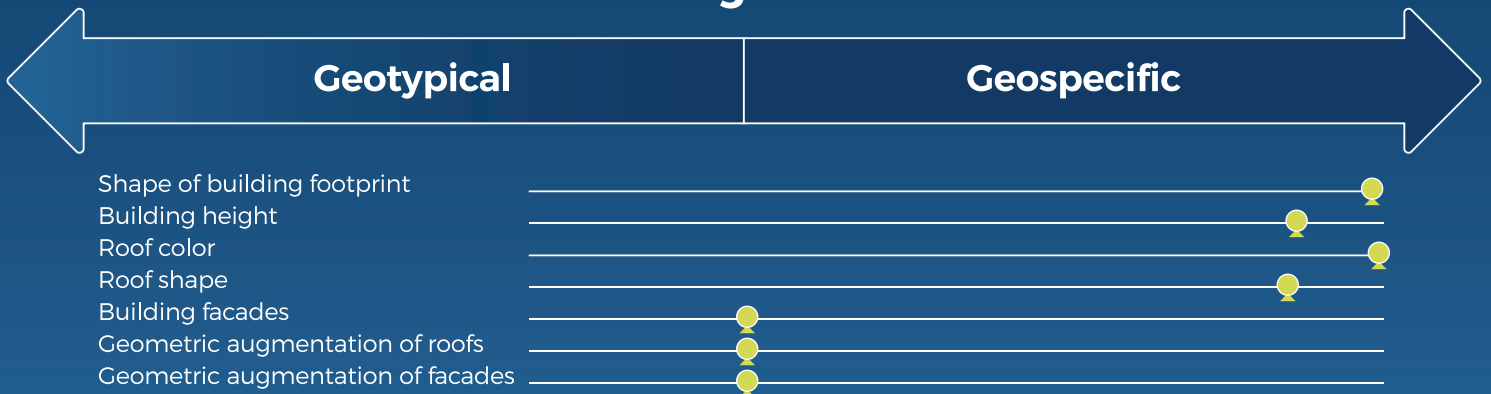
Export 3D Files Compatible with GIS and BIM Software

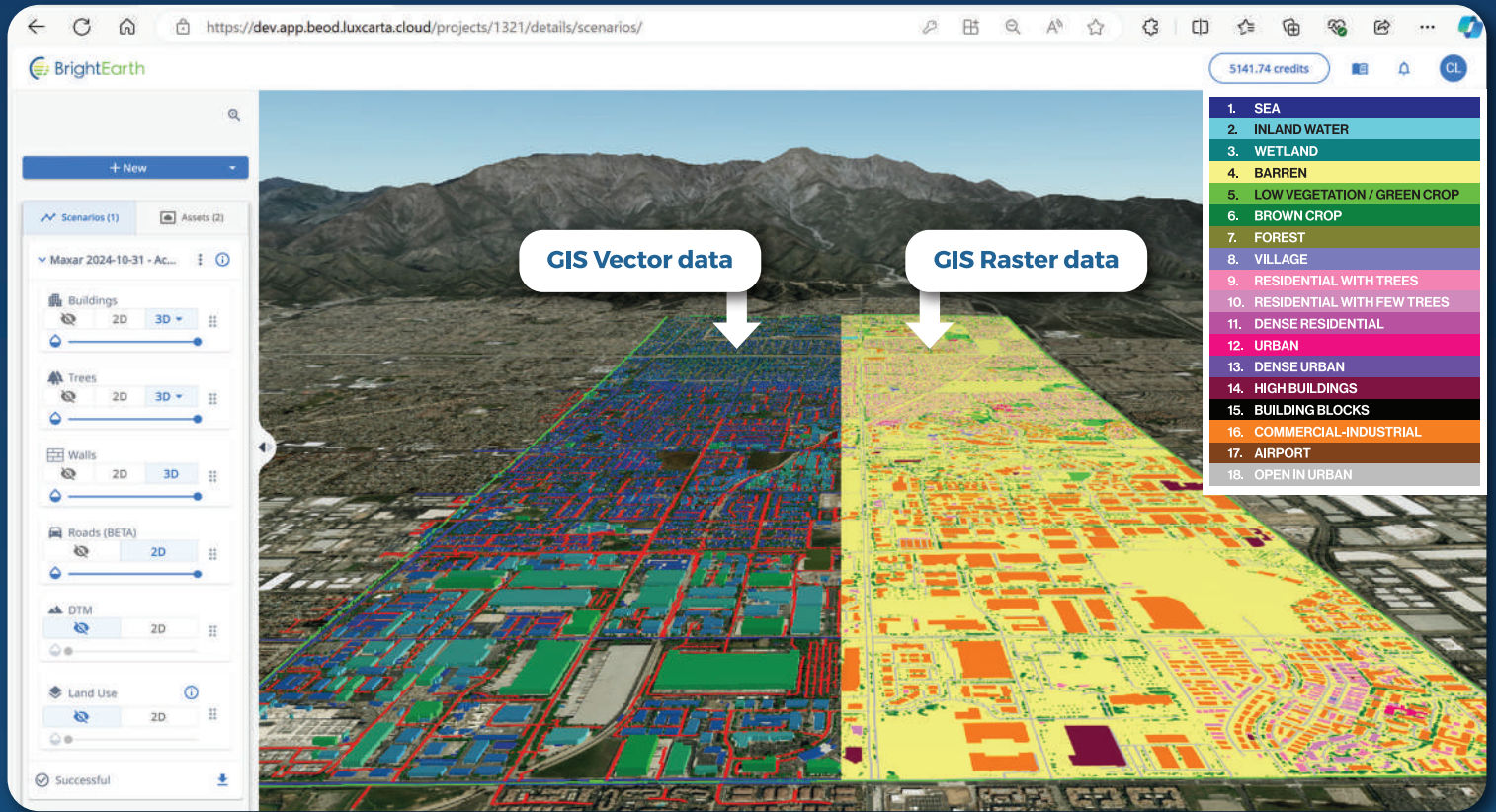
Integrate data into GIS and CAD tools using formats such as .shp, .obj and .3dtiles

Generate Synthetic 3D Environments

Create realistic 3D environments from satellite imagery for simulations with 3dtiles or as Indexed 3D Scene Layers (I3S)

Where does BrightEarth data fit?





Rancho Cucamonga, California as rendered in the web interface of BEOD.

Why BrightEarth On Demand?

Simple and Quick 3D Map Generation

BrightEarth On Demand allows anyone to easily create high-quality map data, even without prior experience

Cost and Time Efficiency

Eliminate the traditional time-consuming process of manually converting satellite imagery into cost-effective usable data

Accuracy and Reliability

Access real-time, high-resolution (50cm) data from trusted global imagery providers. Cutting-edge stereo photogrammetry process is utilized for generating heights

Broad Access to Advanced Geospatial Data

While 3D geospatial data was historically reserved for large enterprises, BrightEarth makes it available to businesses of all sizes

Input Data Sources

Global Basemaps: Maxar Vivid, OneAtlas, ArcGIS

Online Orthoimagery Archives: Maxar, Airbus

User-provided Imagery: Integrate your own satellite imagery for personalized data extraction

BrightEarth Output Formats



Vectors

.gpkg, .shp and .json
Polygons - buildings and trees
Polylines - roads and walls



Rasters

.tiff & .png
Land Use/Land Cover (LULC) (18 class)
Digital Terrain Model (DTM) @10m resolution



3D Tiles

.3dtiles (tileset.json +*.glb)

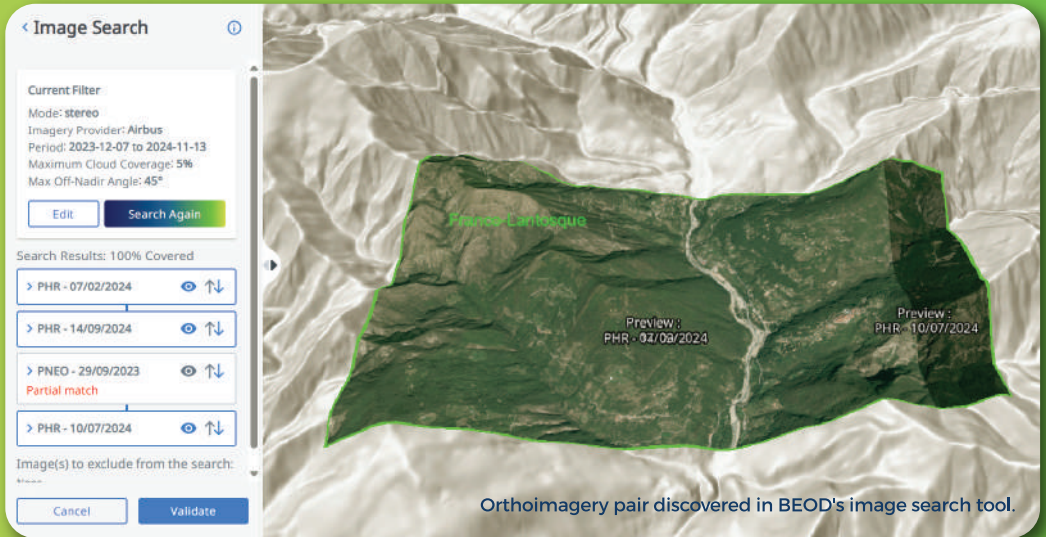
BrightEarth includes:

Imagery Search

Filter satellite images by date range, cloud cover or viewing angle. Also search for stereo pairs where required

3D Display

Inspect 3D data before downloading, ensuring precision and accuracy



Fine-tuning

Improve the performance of AI extraction models by retraining with your own imagery and ground truth sources

BrightEarth API

Unlock the potential of geospatial data with the BrightEarth API. Tailored to developers, our API provides all the tools needed to integrate high-precision, real-time 3D geospatial data into your applications.

Access, Extract and Download LuxCarta Global Basemaps @10m

Imagery Mosaic

Land Use/Land Cover (LULC)

Digital Elevation Model (DTM)

All layers are correlated. Source imagery for all basemaps includes Sentinel-2.



Markets



Telecom

Urban Planning & Architecture



Smart Cities

Simulation & Training



Video Games & Metaverses



Location-based Services

Transform Your Maps with BrightEarth On Demand!

Looking to elevate your geospatial data game?

Contact us today for a personalized demo:
sales@brightearth.com | www.brightearth.ai



Interested in BrightEarth capabilities on your secure network?

Ask us about BrightEarth on Premises



BrightEarth is powered by LuxCarta, one of the world's leading map data companies.

BrightEarth is LuxCarta's platform that utilizes AI-enhanced production techniques to generate high-resolution geospatial data including 3D buildings and vegetation, as well as roads, 18-class land use/land cover (LULC) and digital terrain models (DTM) from a variety of imagery sources. BrightEarth products are made available through a cloud version "On Demand," a software version for use on private networks "On Premises" as well as directly from LuxCarta "Production Services." These innovative products — based on more than 30 years of geospatial and remote sensing expertise — are ready for immediate download in a variety of standardized data formats or as 3D tiles.

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