



LuxCarta is building on its BrightEarth™ technology to add “smart” textures derived by artificial intelligence (AI) to its building polygons. Information on roof type and color, as well as facades, is synthesized using AI from the imagery to provide realistic textures cost effectively.



BrightEarth products

are ideally suited for the following use cases:



Insurance: risk assessment, catastrophic-loss reduction, response planning for natural catastrophes



Defense and homeland security: simulation & training, mission planning/rehearsal



Environment: monitoring, planning, and management; floods, forest damage and water pollution



Utilities: planning and management; energy transmission, telecom



Entertainment and media: scenery development for computer games, movies and news programs



Flight simulation: military and commercial aviation training



Mining: environmental impact assessments [EIA] and site remediation

And more....

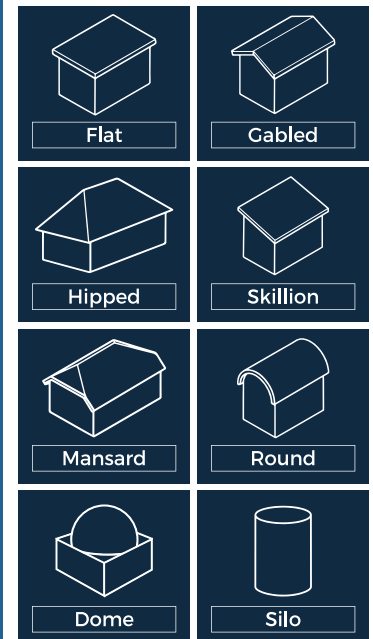
Smart-facade Texturing

Using content-based image retrieval and building clustering through AI, LuxCarta applies appropriate textures for the building facades of its 3D buildings.



Roof Shape and Color Detection

BrightEarth's AI can detect a variety of roof types. It also extracts the color directly from the satellite imagery to make it as realistic as possible.



Proportion of Windows Per Facade

BrightEarth technology can utilize street-level imagery – where available – to cost effectively provide the percentage of windowed facades for each building and recommend it where appropriate inputs are not available.

The Future of City Textures

LuxCarta has focused its development efforts to date on improving building realism, including roofs and facades. Future R&D efforts will be invested on roads and vegetation representation. Our goal is the most cost-effective immersive synthetic 3D environments derived from available imagery.

Product Specifications

- Output file format: OBJ, DAE, FBX, 3DS, GLTF
- Streaming format: OGC 3D Tiles, OGC I3S
- Coordinate reference system
 - Classic 3D files: any metric EPSG
 - Streaming format: EPSG 4978

About BrightEarth

BrightEarth is LuxCarta's product line created using AI-enhanced production techniques. BrightEarth web services offer high-resolution building, road and tree extraction, 23-class land use/land cover (LULC) and digital terrain model (DTM) creation using a variety of imagery sources in real time. It also incorporates a seamless cloud-free global mosaic, 23-class LULC as well as time-of-day population maps derived from Sentinel-2 imagery at 10m, updated at regular intervals. These innovative products — based on more than 30 years of geospatial and remote sensing expertise — are ready for immediate download or accessible via APIs in support of a system-level integration. There is no place in the world that LuxCarta can't illuminate with BrightEarth.

For more information:

marketing@luxcarta.com
or visit www.luxcarta.com

©LuxCarta 2022. All rights reserved.

All trademarks are property of their respective owners

Rev 11/22