Next-generation geodata

As telecommunication technologies continue to rapidly advance, network planners need to build and optimize ever denser networks that improve coverage, bandwidth and latency while avoiding added interference and managing costs. Access to accurate and highly detailed geodata for use in your planning software is critical to help you achieve optimal usage of network infrastructure investment. Maxar, in conjunction with partner NTT Data, offers a full geodata package available on a global scale to help your organization overcome the increasing complexities of network planning for complex telecommunication markets.

Features and benefits

- Highly accurate 3D building models and terrain models
- Coverage in dense urban, suburban and rural areas for wide-area builds
- Competitive pricing and rapid delivery
- Improve model accuracy and model reusability
- Save time and costs typically associated with repeat drive testing, model tuning and line-of-sight validations
- Confidently build virtual network models that identify high-frequency line-of-sight, model path loss, signal attenuation and frequency re-use from your desk
- Application-ready geodata can be incorporated into your RF planning workflow without reformatting or additional data preparation work

Maxar has owned and operated their own satellite constellation for nearly two decades and collects more than 3.5 million sq km of Earth’s surface daily at the highest resolution and image quality commercially available. Today, we leverage our 100 petabyte image library as well as an extensive partner ecosystem to build disruptive geodata solutions for RF engineers struggling to build accurate propagation simulations for complex new age radio networks. Multi-view photogrammetric processes allow us to create highly detailed geodata and 3D building models for nearly any location on Earth at a speed and cost not possible with traditional remote sensing methodologies. This is creating a new era in 3D geodata that will enable more complex advance ray tracing algorithms for the requirements of higher frequency spectrum of the future.
Maxar provides geodata layers that feature the best accuracy at an affordable price for almost every location in the world. The dataset includes 3D vector, 2D linear vector, clutter (DLU & DHM) and DTM, with an option for ortho imagery.

3D Vectors: Developed from highly accurate building footprints and elevation models. The 3D building models show an LOD 2 representation of buildings with multiple roof features.

2D Linear Vector (optional): Represent a number of different map elements including roads, bridges, rivers, coastlines, etc.

Clutter (DLU & DHM): A range of statistically categorized classes (e.g., forest, high building, etc.). Digital Height Models provide height data as raster.

DTM: A 3D model of Earth terrain.

Ortho imagery (optional): A high-resolution image to accompany the 3D telecom dataset.

**Authentication and security**

<table>
<thead>
<tr>
<th></th>
<th>3D VECTOR</th>
<th>DHM</th>
<th>DTM</th>
<th>DLU</th>
<th>2D LINEAR VECTOR</th>
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</thead>
<tbody>
<tr>
<td>General description</td>
<td>3D model of building, forest and bridge</td>
<td>Height model of building and tree</td>
<td>Terrain elevation model</td>
<td>Land use map for 10 classes (default)</td>
<td>Digital map (road, railway and river)</td>
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<tr>
<td>Spatial resolution</td>
<td>1:3,000 level</td>
<td>5 m</td>
<td>5 m</td>
<td>5 m</td>
<td>1:5,000-1:25,000 level</td>
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<td>Horizontal accuracy</td>
<td>2 m</td>
<td>2 m (5 m for 10 m res)</td>
<td>2-5 m</td>
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<tr>
<td>Vertical accuracy</td>
<td>2 m</td>
<td>2 m (5 m for 10 m res)</td>
<td>1-2 m</td>
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<tr>
<td>File format</td>
<td>Vector (TAB or Shape)</td>
<td>Raster (GeoTiff)</td>
<td>Raster (BIL)</td>
<td>Raster (GRD/MRR)</td>
<td>Vector (TAB or shape)</td>
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*Other formats available upon request.