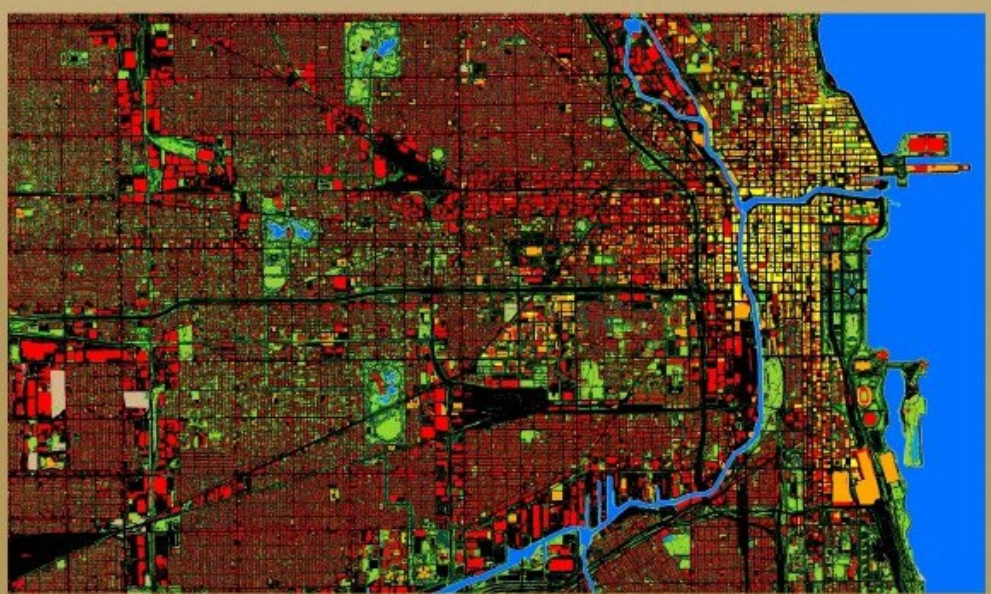
Aerial-derived Geodata
Highest Detail & Accuracy for
Optimal 5G RF Planning/Engineering

LANDinfo
WORLDWIDE MAPPING LLC

CLUTTER • DSM • DTM • nDSM
3D MULTI-TIERED BUILDING & TREE VECTORS
4D BRIDGES • ADDITIONAL SPECIALIZED LAYERS

3d multi-tiered building & tree vectors from aerial sources offer more detail than satellite to create true 5G real-world simulations.



Our cutting-edge Object Based and Artificial Intelligence technologies are scaled to rapidly produce clutter of large areas with the highest quality.

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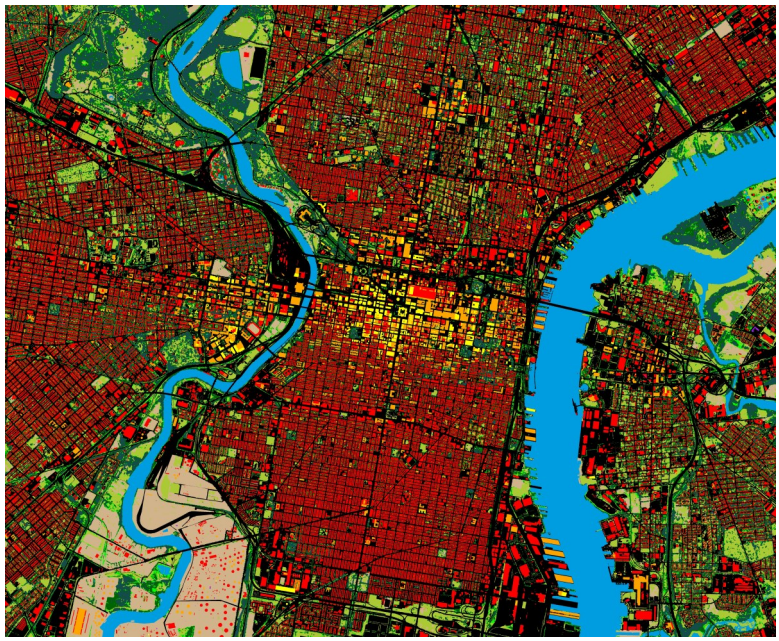
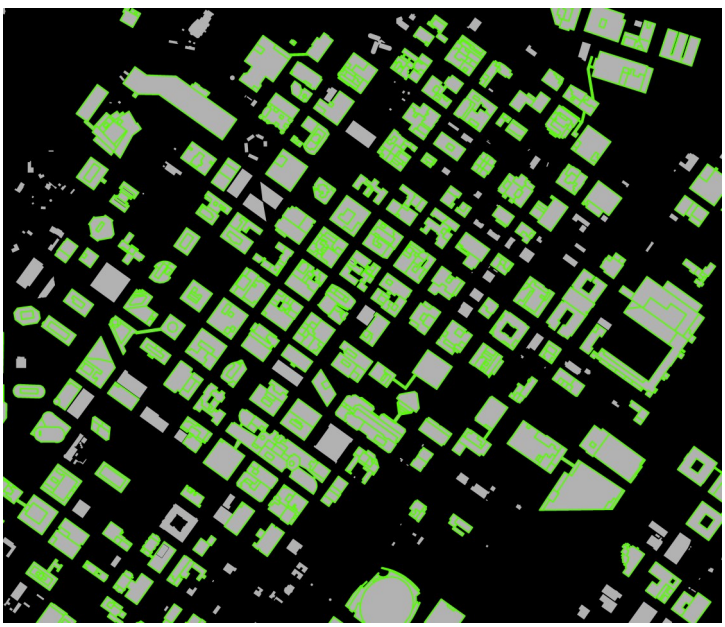
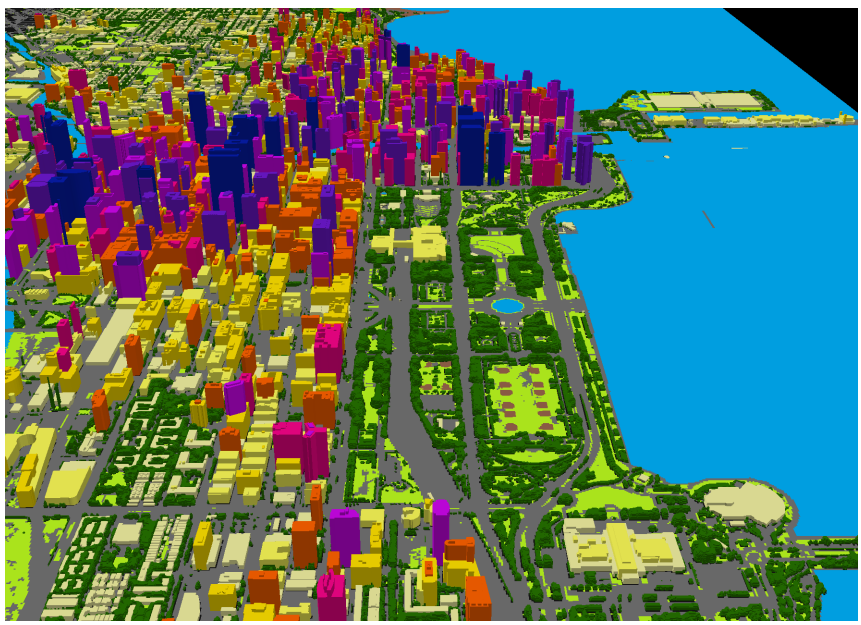
CLUTTER



For over a decade LAND INFO has continuously refined and improved Object-Based rulesets specifically designed to optimize detailed clutter classifications for RF planning/engineering. The introduction of Artificial Intelligence including Convolutional Neural Networks further enhances scalability to rapidly deliver very large areas.

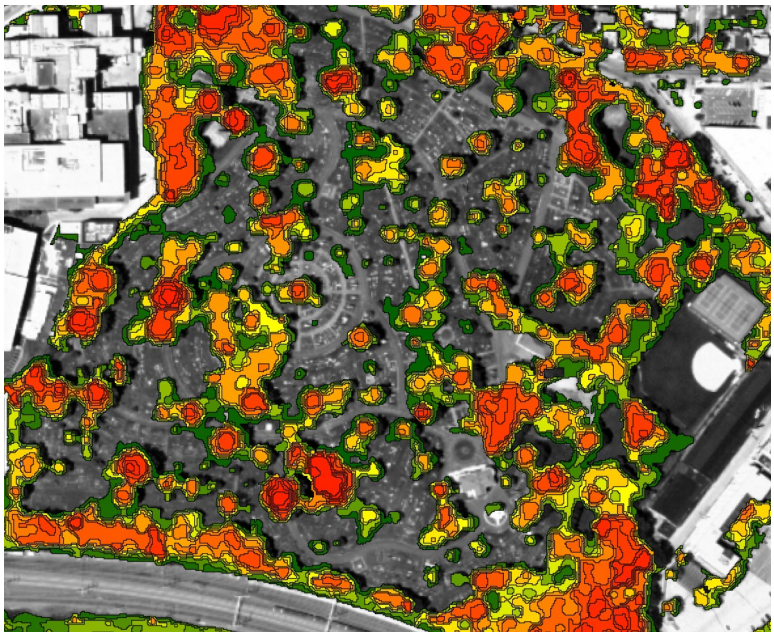
3D MULTI-TIERED BUILDING VECTORS



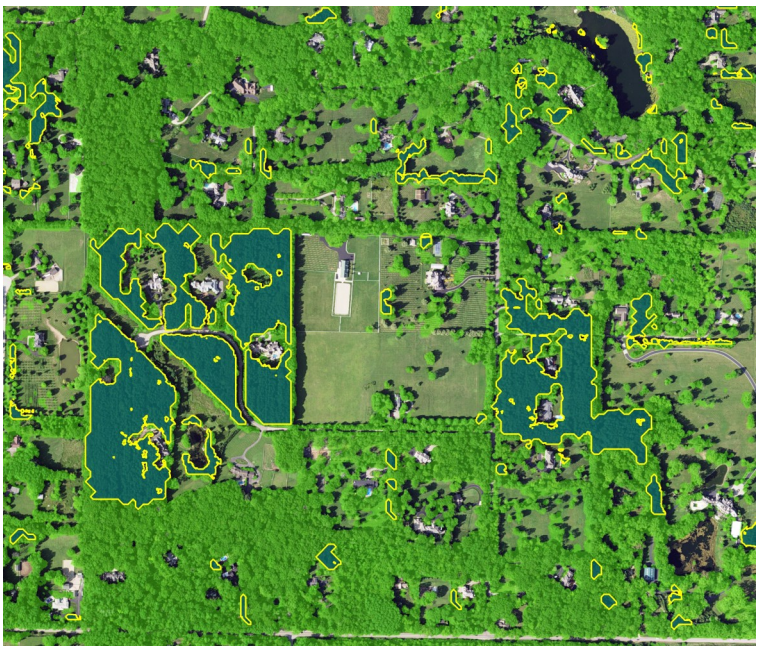


Automated object based multi-tier building segmentation and Z-attribution create detailed building structures (including small roof details), mirroring the real-world environment for true 5G simulations.

3D CONTOURED TREE VECTORS



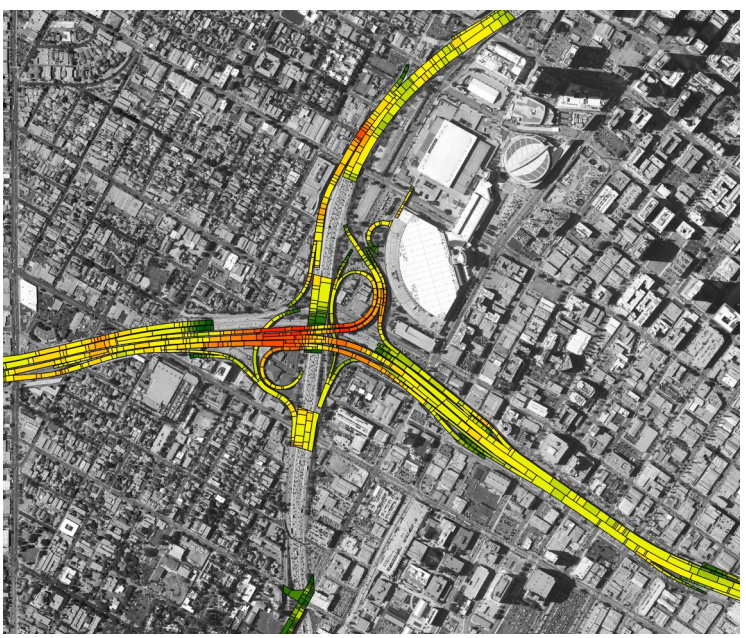
3D tree vector polygons are created using proprietary morphological operators — contours are accurately and consistently Z-attributed across all areas of interest.



Coniferous versus deciduous vegetation analysis is optimized for both urban and rural environments.

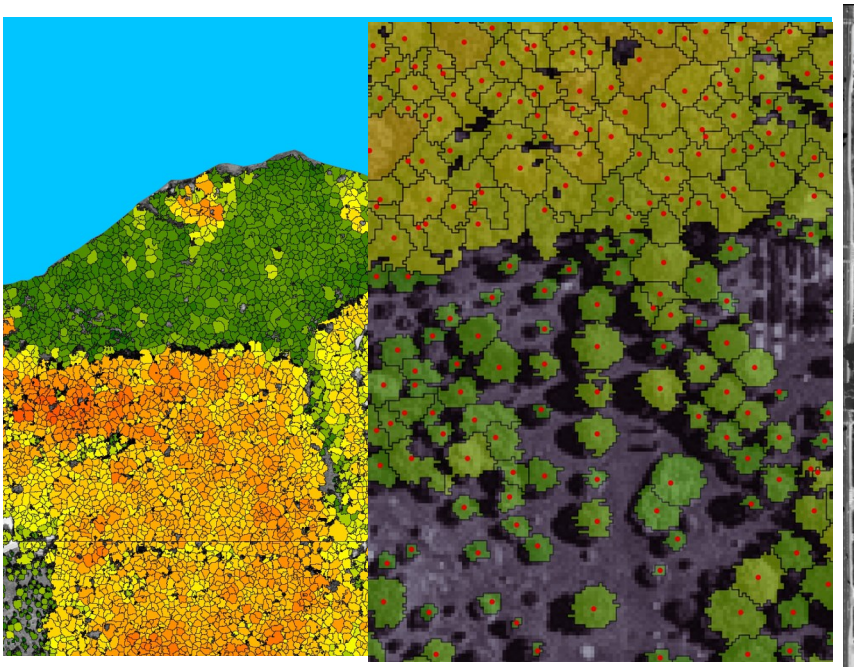
SPECIALIZED LAYERS

For areas without off-the-shelf data, our feature extraction from aerial imagery pinpoints visible utility poles.

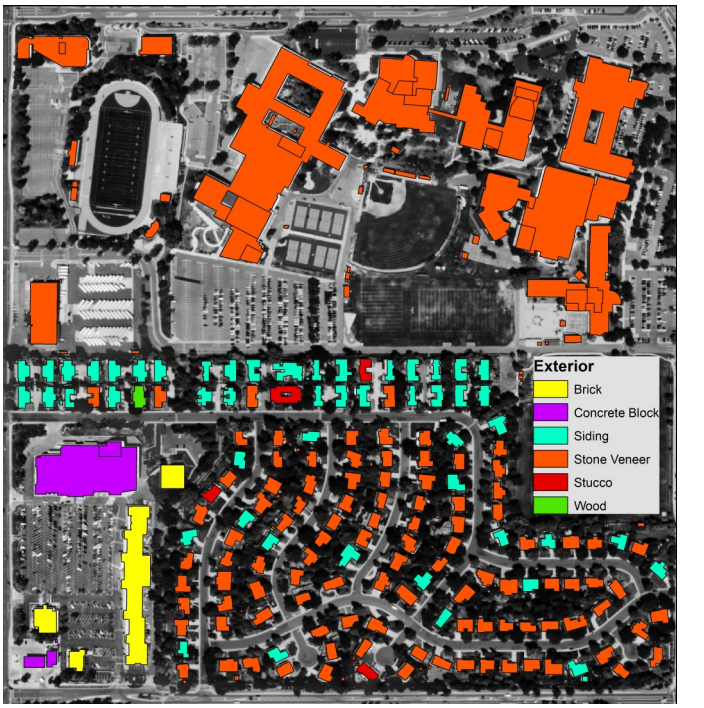


“4D Bridges” are vectors segmented at regular intervals and attributed with elevation, height above ground and thickness to properly model these obstructions.

SPECIALIZED LAYERS



The next level of tree classification — custom object-based algorithms identify individual tree crowns and estimate main trunk locations.



Construction Material Attribution — above and beyond height, additional attribution options include exterior building material, roof material, zoned use and others.

Aerial-derived Geodata – The Detail & Accuracy You Require for Optimal 5G RF Planning/Engineering

LAND INFO has been creating geodata solutions for wireless communications since 1996. A pioneer in the use of cutting-edge Object-Based and Artificial Intelligence technologies, we have perfected high-quality models and are scaled to rapidly produce large areas. Our 23 years of experience make us uniquely qualified to create real-world simulations with the accuracy and detail needed for optimal 5G RF planning/engineering.

As the only major provider to extensively use aerial source data, our geodata has unique advantages versus a satellite-only approach:

- Clutter (land use/land cover) generated from higher resolution multispectral imagery, to accurately capture detail and distinguish classes
- 100% leaf-on imagery for the best tree mapping results, including contouring (multiple levels of vector polygons for true 3d tree representation)
- Imagery of large areas (metros and larger) captured over short timeframes gives consistent seasonality for improved classification
- 3d multi-tiered building and contoured tree vectors produced from higher resolution elevation inputs to best simulate real-world fine detail, including small roof features, all with higher accuracy
- Nadir (looking straight down) imagery to map features in complex urban environments

Our total focus on data enables us to couple these technical advantages with competitive pricing. Multiple operators are already using our geodata for 5G rollouts. Contact our experienced wireless applications specialists to learn how we can help contribute to the success of your projects.