

DATASHEET

Geodata

Confidently model your 5G network with our high-resolution 3D building and vegetation maps

A portfolio of modern geodata sets to ensure accurate RF planning

Our premium geodata offering provides high-resolution (1-2m) digital maps with 3D building and vegetation polygons, designed specifically for RF planning. This is critical for accurate planning of 5G in dense urban areas and especially at mmWave frequencies. For areas where lower resolution data is acceptable, we offer a 2.5D medium resolution (5-10m) solution, ideal for suburban areas, and a 2D low resolution (20m+) solution for nationwide and large coverage footprints.

The Infovista geodata team works closely with the Planet R&D group to understand new wireless technologies and related modeling challenges, such as the those introduced with mmWave. This unique perspective allows Infovista to develop geodata tailored for use by the RF planning ecosystem of the most complex networks.

Why Geodata?

Improve your RF planning accuracy

Our best-in-class geodata, designed and validated specifically for RF planning, ensures an accurate baseline on which to plan.



Tailor the solution to your needs

Choose from a geodata portfolio covering high-resolution 3D data, medium resolution 2.5D data and low resolution 2D data.



Achieve maximum accuracy with 3D maps

Our Skylines geodata provides the highest resolution (1-2m) and 3D building and vegetation polygons, perfect for urban planning.



Balance cost and accuracy with 2.5D

Our Cityscapes HD geodata provides medium resolution (5-10m) maps with height data, perfect for suburban planning.



A cost-effective nationwide solution

Our Cityscapes geodata provides low resolution (20m+) maps, perfect for nationwide and large coverage footprints.



Enjoy hassle-free deployment

Fully compatible with your planning tool and propagation models and with a simple plug-and-play delivery structure.



Use cases

5G network planning

5G employs radically new technologies like massive MIMO and beamforming. To successfully plan these technologies as well as other aspects of 5G such as mmWave frequencies requires high resolution 3D maps which include 3D buildings and vegetation polygons. Our Skylines high resolution 3D map data ensures you can accurately plan your 5G network in complex dense urban environments and deliver the quality of service your customers expect.



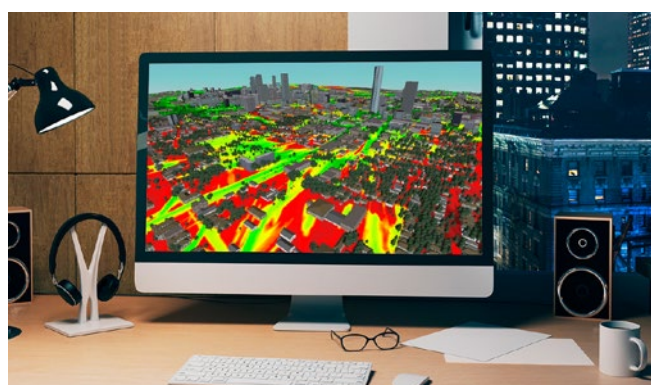
Planning in 3D

In many cities, 70-80% of mobile broadband traffic comes from indoor locations. This means the subscribers are not necessarily at ground level, making traditional 2D planning ineffective. To address this, you must be able to plan your network in 3D, and for that it is critical to have high resolution 3D building data such as that found in our Skylines geodata.



mmWave planning

5G has seen the adoption of mmWave frequencies. The high frequencies of mmWave spectrum can support massive bandwidths for eMBB use cases and high-capacity sites. The tiny wavelengths of these frequencies, however, suffer a lot of attenuation from obstacles. The highest resolution map data including 3D buildings and vegetation is therefore critical to successful mmWave planning. Without it, the coverage predicted in a planning tool will differ significantly from reality when the site is built.



Choose the right Geodata for your project

It is important to choose the most appropriate geodata for your project. Higher resolution data is more expensive and results in slower coverage predictions. Lower resolution data while cheaper may not give you the resolution you need to confidently plan your network.

Infovista's Geodata portfolio consists of 4 product offerings designed to meet the needs of various planning environments and project outcomes:

- **Skylines** – The highest resolution (1-2m) geodata with 3D buildings and vegetation polygons derived from the latest high-resolution satellite imagery. Perfect for planning 5G, dense urban areas, mmWave frequencies, small cells and other projects where maximum accuracy is required.
- **Cityscapes HD** – Designed for RF engineering in sprawling metropolitan areas where both structures and vegetation play an important role in defining propagation characteristics. 5-10m resolution geodata with height information is perfect for this scenario. Network operators using Cityscapes HD experience improved propagation modeling accuracy, increased model reusability and reduced reliance on propagation model calibration.
- **Cityscapes** – Designed to meet the detailed microcell network planning requirements in geographically diverse areas. The 20m+ resolution geodata provides a great balance between propagation modeling accuracy, price and performance, perfect for nationwide and large coverage footprints.

	Resolution					
	1m	2m	5m	10m	20m	50m
Large area planning					Cityscapes	
Metropolitan planning			Cityscapes HD			
Urban planning	Skylines					

Part of the Infovista Planet Suite for RAN planning and optimization

Deliver the best wireless network with end-to-end RAN planning and optimization

Planet Suite is our portfolio of solutions to address every aspect of planning and optimizing your RAN network whether it be just 5G, or a combination of multiple technologies. Leveraging decades of expertise in radio and backhaul network modeling and underpinned by extensive automation, 3D simulations and machine learning, the Planet Suite helps you to deliver the best wireless network - one that reliably provides the exceptional subscriber experience for the possible lowest cost.

THE PLANET SUITE

Planet

RF planning and optimization

Increase radio design accuracy and accelerate 5G network roll-out



Planet Cloud

Cloud-based RF planning and optimization

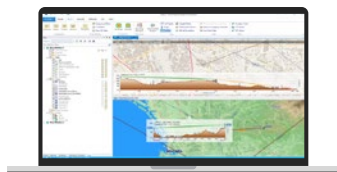
Adopt cloud-native planning for performance, scalability and efficiency



Ellipse

Backhaul planning and optimization

Design backhaul network topologies, capacity and latency to support 5G



Geodata

Maps for wireless network design

Accurately model your wireless network with modern geodata sets



Why choose the Planet Suite?



Leverage Machine Learning to improve propagation accuracy with AIM, Planet's AI-driven 3D propagation model.



Automate and integrate easily via open APIs, removing repetitive tasks from engineers and benefitting from cross-departmental collaboration.



Base your network planning on real-world data insights from external data sources including crowdsourced data for improved accuracy.



Optimize your network CAPEX return on investment by considering revenue and cost metrics when determining the optimal network design.



Accurately dimension your backhaul network based on least-cost routing, capacity assessments and fiber vs. microwave feasibility.



Ensure an accurate baseline from which to plan with our best-in-class geodata, designed and validated specifically for RF planning.



About Infovista

Infovista is the global leader in network lifecycle automation (NLA) for the next-gen networks era. With its unique NLA approach, Infovista allows communications service providers (CSPs) and enterprises to improve their network performance and customer experience, optimize their productivity, and reduce their costs, while maximizing return on their investments. Spanning the entire network lifecycle, Infovista's products and solutions leverage an open, integrated, cloud native portfolio that automates tasks, flows, analytics, and decisions to the greatest extent possible. More than 1,000 customers, including 400 Mobile Network Operators, around the world rely on Infovista to plan, design, deploy, test, operate, support, optimize, evolve, report on and monetize their networks.



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