

Hexagon Geosystems Introduces Digital Twins of Major Cities



Hexagon's Geosystems division has launched Metro HD city data, a new offering of ultra-high-resolution 2D and 3D digital twins of major cities as an off-the-shelf product through the HxGN Content Program. The announcement was made at Intergeo.

In addition to the Content Program's standard product offerings of orthophotos and digital surface models, [Metro HD](#) will expand the data stack to include high-definition true orthophotos, obliques, digital terrain models, Lidar point clouds, 3D building models (LOD2), 3D meshes, and land use maps. Cities captured in 2021 include Munich, Cologne, Vienna, Milan, Amsterdam, Stockholm, Tokyo, Dallas, New York, Stuttgart and Frankfurt. More cities will be added in early 2022.

Hybrid aerial mapping

The program uses a hybrid urban mapping sensor, the [Leica CityMapper-2](#), that concurrently collects Lidar and aerial imagery. The derived products, based on the strength of each subsystem, result in superior accuracy and temporal consistency across all three data dimensions to satisfy even the most demanding applications.

"By creating a 3D digital twin of the world, the [HxGN Content Program](#) is supporting the global need for geospatial data that enables insightful, data-driven decisions," stated John Welter, president geospatial content solutions at Hexagon. "We continue to deliver innovative products and form strategic partnerships that provide the highest quality data to position our customers for success."

Automatic feature extraction

The data consistency and flexible use terms of the HxGN Content Program makes it a very suitable data source for artificial intelligence, machine learning, automatic feature extraction and large volume analytics. Additionally, the 3D digital twins will enable city administrations and infrastructure providers to manage and monitor critical assets, assess and model risks, and support the visualization of new infrastructure projects for public communication with the goal to create smarter, more sustainable cities.

The data will be hosted and made available for download and streaming via the HxGN Content Program partner network for integration into GIS and analytics platforms and on Hexagon Digital Reality (HxDR), Hexagon's cloud-based visualization and collaboration platform.