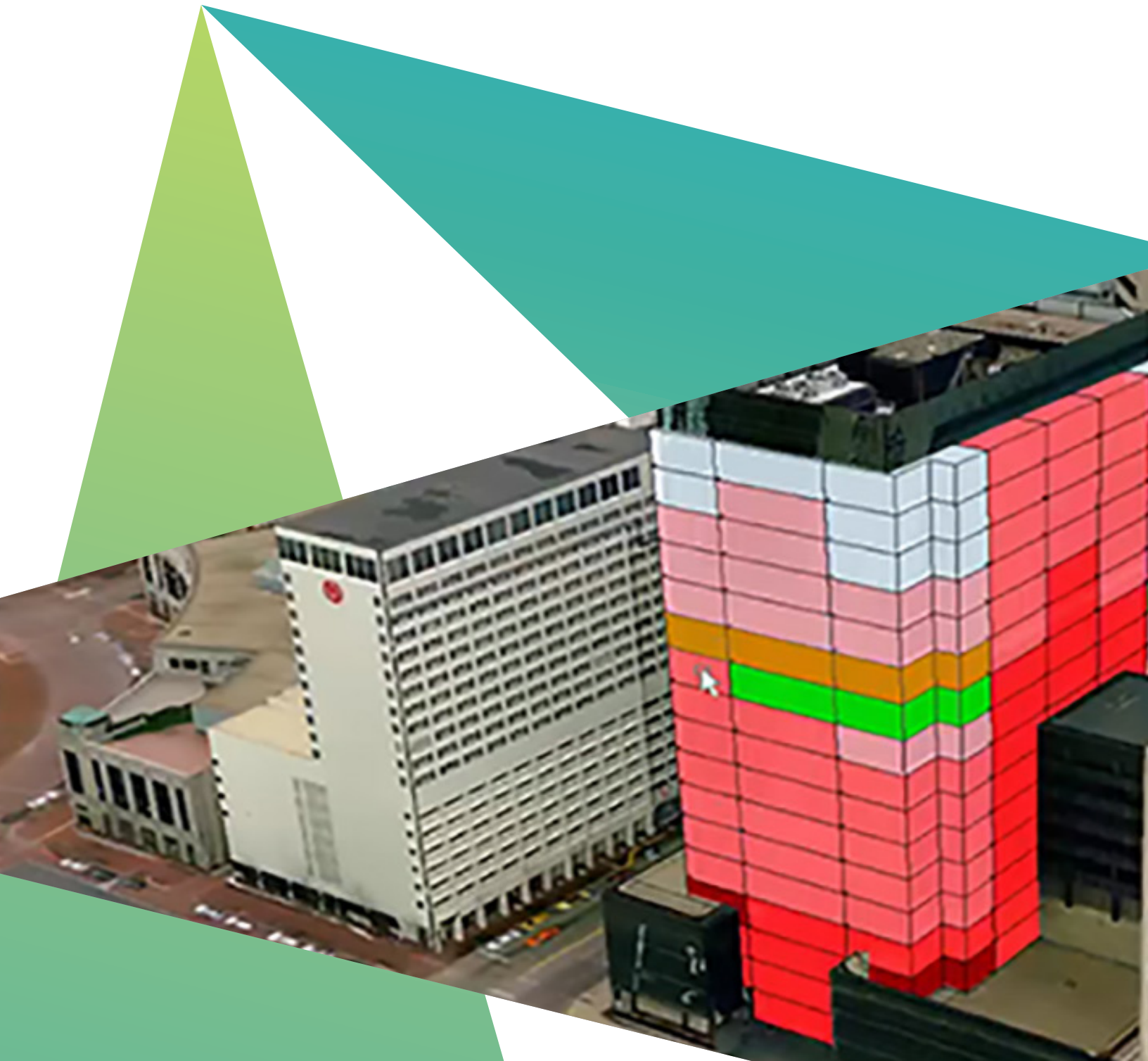
HEXAGON

Brochure

GeoMedia 3D



The world's not flat

Why view it that way?

Add another dimension of analysis and viewing to your GeoMedia environment with GeoMedia 3D. For organisations that want to exploit the precision and power of geospatial data, having realistic three-dimensional views raise the bar, leading to quicker, more confident decision-making, visual communication and analysis.

GeoMedia 3D is an extension to GeoMedia that enables a wide range of 3D capabilities for defence, intelligence, government, transportation, utilities, communications, public safety and security applications. Using the integrated 3D visualisation and analysis environment, you can visualise, navigate, analyse and interact with 3D data natively in GeoMedia. In addition, you can dynamically integrate surfaces, imagery, vector feature data, rasters and point clouds to provide a 3D view of all data sources in GeoMedia.

Organisations that process elevation data achieve maximum benefit through seamless visualisation of 3D surfaces. With the ability to visualise the terrain, users can better understand the surroundings, leading to informed decisions and more effective real-world assessments. With GeoMedia 3D, you can extrude features based on elevation or selected attributes, providing a rich set of options for graphical depiction of feature characteristics. Import capabilities for prebuilt city models, Google files and Trimble files give you the ability to incorporate other readily available 3D files into your projects. To visualise the 3D effect of an analytic operation, other products perform the analysis in the standard 2D view, and then convert to 3D for visualisation. Analytic workflows that call for frequent iterations consume time, forcing you to trade productivity for 3D functionality.

GeoMedia 3D breaks through this barrier with technology that enables an interactive, geospatially synchronised 3D view. You have the choice of working in 3D, 2D or both views to get the best blend of power, visualisation, and performance. GeoMedia 3D is fully integrated with GeoMedia, enabling you to leverage the power of GeoMedia's core geospatial analysis for 3D.

With GeoMedia 3D, you have access to 3D capabilities for visualisation, manipulation, analysis, navigation and data integration with your existing geospatial data. This level of integration provides you with superior performance, productivity and enhanced visualisation to meet the emerging challenges of today's geospatial environment. By fusing multiple data sources together into a single georeferenced 3D view, we deliver more immediately usable and actionable geospatial information across all industry segments.

GeoMedia 3D provides a valuable tool to visually enhance your workflows in infrastructure management, land information management, geospatial intelligence exploitation and production, cartographic production, security and reporting and analysis.

Business benefits

Enhanced decision support – Whether it's situational awareness, road planning, green initiatives or force protection, incorporating 3D visualisation and analysis into workflows enables better decision-making. You benefit from the photo-realistic view of your assets, including the ability to fly through and evaluate areas of interest from all perspectives.

Urban modelling – With 3D models, gain better understanding and insight into the impact of change on the environment, an increasing concern for government agencies and the public.

Community impact projects – The third dimension makes a visual connection with the public to give a better sense of a project beyond the technical details and can assist in gaining public support.

Asset management – GeoMedia's ability to bring point clouds directly into the 3D environment alongside the GIS data creates new opportunities to precisely locate, update and monitor the condition of assets in the field.

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Integrated 3D environment

- Access the same data, symbology and analyses from the 2D view or create new 3D representations.
- Easily move between 2D and 3D environments as GeoMedia commands operate on the active window. GeoMedia 3D maintains the proper 2D and 3D representations as you move from one environment to the other.
- Select the most effective way to work for a particular project – with all the power and precision of GeoMedia also available for a 3D environment.
- Available for all three GeoMedia Desktop product tiers: Essentials, Advantage and Professional
- Leverages all GIS data servers supported by GeoMedia Desktop
- Works seamlessly with GeoMedia Desktop add-on products such as Incident Analyst

3D navigation

- Easy-to-learn six degrees of navigational freedom when moving through 3D space
- Co-selection and co-location with the 2D view as desired for orientation and referencing
- Follow predefined paths for full 360-degree views
- Collision detection during navigation
- First Person View navigation mode provides a realistic perspective and walk-through of the 3D landscape.

3D visualisation

- Display any 3D georeferenced data source, including 3D models, vector feature data, rasters, point clouds, imagery and surfaces – all in the same view.
- Environmental condition settings such as rain, snow, fog, wind speed and direction, sky color and texture, cloud coverage, sun and moon positions
- Output high definition (1920 x 1080) video files at 30 frames per second for playback and editing
- Integrates with Skyline TerraBuilder, TerraExplorer and TerraGate servers

3D analysis

- GeoMedia GIS warehouse connects and displays all spatial analytics in the 3D map window. This paradigm lets you use the wide range of GeoMedia capabilities in 3D.
- Dynamic real-time shadow casting with compensation for time of day and day of year
- True 3D viewshed analysis enables fast and accurate planning for security camera placement, communication towers and other visibility-driven smart city sensor implementations.
- 3D mesh layer support improves rendering when handling large 3D environments, even at city scale.
- Threat Dome analysis creates a 3D shape that resembles the top half of a sphere that displays the areas viewable from a given point in the 3D view.
- GeoMedia 3D allows users to take analysis normally done in 2D and conduct it in 3D with more compelling visual results. Analysis and views in 3D allow for better understanding of results by providing a truly immersive 3D experience.

Gain better insight into the impact of change on the environment, based on a realistic understanding of real-world parameters.

Contact us

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Hexagon is a global leader in digital reality solutions, combining sensor, software and autonomous technologies. We are putting data to work to boost efficiency, productivity, quality and safety across industrial, manufacturing, infrastructure, public sector, and mobility applications. Our technologies are shaping production and people-related ecosystems to become increasingly connected and autonomous – ensuring a scalable, sustainable future.

Hexagon's Geospatial division creates solutions that deliver a 5D smart digital reality with insight into what was, what is, what could be, what should be, and ultimately, what will be.

Learn more about Hexagon (Nasdaq Stockholm: HEXA B) at hexagon.com and follow us @HexagonAB.