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CG² Announces LIDAR Fusion for Geospatial Intelligence Community

LIDAR Fusion 2.0 GEOINT Delivers New Tools, Increased Speed, and Detailed Tutorials for Visualizing and Analyzing LIDAR Information

Orlando, FL. (Ground Robotics Conference – Booth #111) – March 22, 2011 – CG², a wholly-owned subsidiary of Quantum3D and leading innovator of technologies for graphics-based virtual training systems and sensor data visualization tools, today announced the availability of LIDAR Fusion GEOINT, a powerful tool for visualizing 3D point clouds from Laser Range data, stereo data and imagery. LIDAR Fusion GEOINT delivers new enhancements for scene analysis and sensor data exploitation, and will be on display at Quantum3D's booth at the Ground Robotics Conference in Orlando, FL.

“LIDAR Fusion GEOINT is designed to give the geospatial intelligence community a powerful tool for visualizing and analyzing LIDAR information,” said Dr. Lisa Spencer, CTO of CG². “LIDAR Fusion GEOINT is a versatile tool for analyzing 3D point data, whether you have raw or processed data from any angle of capture (nadir or oblique), at any altitude, with one or multiple overlapping data sources.”

LIDAR Fusion GEOINT defines a new level of visual realism for LIDAR data by combining the 3D volumetric detail of point cloud data with the color and shading from satellite imagery of the area (Figure 1). In addition to importing multiple overlapping LAS and GeoTIFF files, LIDAR Fusion can load PLY files used for robotics applications.

In addition to LIDAR data, LIDAR Fusion GEOINT supports visualization of 3D stereo data to incorporate 360 degree street level imagery. Each pixel in the high resolution panorama includes associated 3D stereo data that can be fused with LIDAR data to create unique, navigable 3D environments (see Figure 2).

A stereo mapping data collection effort in Washington, D.C. was recently completed; LIDAR Fusion GEOINT can visualize this new data set with full 3D interaction (see Figure 3). This single perspective street-level snapshot can be merged with snapshots from other camera angles in LIDAR Fusion to complete any gaps in the interactive 3D scene.

Additional features for version 2.0 of LIDAR Fusion GEOINT include:

- **Fast Load Times with Greater Capacity:** Users have the ability to load 15 million points per gigabyte of system memory, allowing users to view up to 45

million square meters of point data at one meter resolution on a system with 3 gigabytes of available memory. When dealing with dense source data, the user can choose to load partial LIDAR data files, either by decimation or user specified start and end points.

- **Advanced Tools:** LIDAR Fusion GEOINT includes tools to easily change shading, lighting and camera speed, and measure the 3D distance between two locations for manipulating and examining a 3D scene.
- **Google Earth™ Correlation:** Google Earth correlation features allow users to select any position in the LIDAR Fusion scene and pop up the corresponding Google Earth view for comparison (see Figure 4).
- **Built-in Tutorials:** The Help Menu documentation includes a new set of tutorials that help users get the most out of their data set to produce maximum scene quality, including using the viewer to visualize data, creating a bare earth digital elevation map (DEM) from a point cloud, classifying points and generating feature clusters, and extracting polygonal buildings and tree placements.

Availability

LIDAR Fusion GEOINT is available today. The LIDAR Fusion GEOINT trial version is downloadable with features to load and analyze data. For more information on CG² products and technologies, including LIDAR Fusion GEOINT, please contact cq2sales@cg2.com or visit www.cg2.com.

About CG²

CG², Inc. is a wholly-owned subsidiary of Quantum3D, Inc. and is a leading supplier of value-added software, media and integrated real-time visual computing products for military, civilian, and government customers. CG²'s products and capabilities include 3D sensor data exploitation for onboard utilization and desktop analysis; real-time accelerated graphics systems for live operational tasks; and virtual training systems ranging from wearable infantry trainers to sensor simulation hardware-in-the-loop missile trainers. For more information about CG², please visit www.CG2.com or contact cq2sales@cg2.com.

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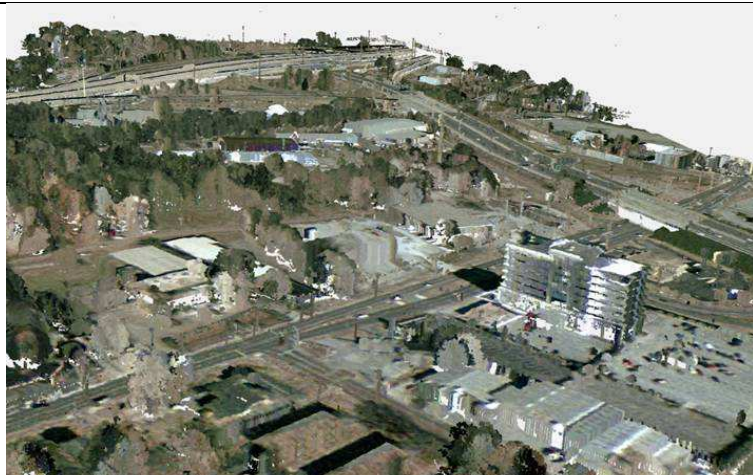


Figure 1: Satellite imagery draped on a LIDAR point cloud



Figure 2: 3D Stereo Cloud View of San Francisco using CG²'s LIDAR Fusion GEOINT

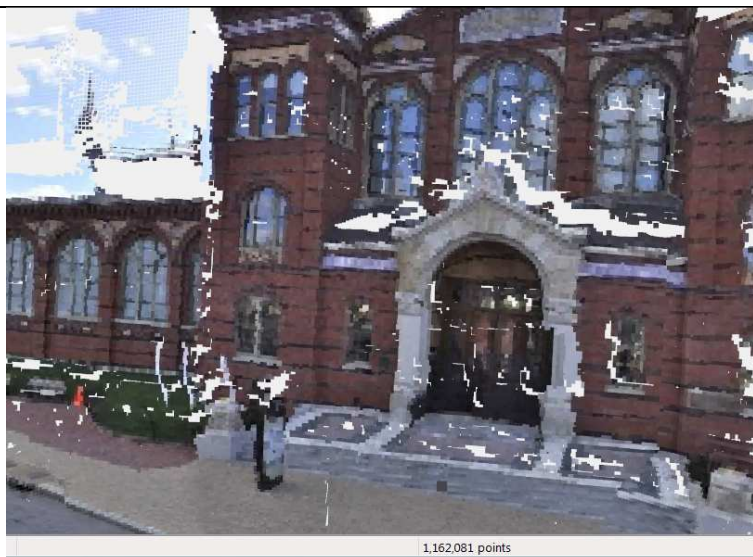


Figure 3: 3D Stereo Cloud View of the Smithsonian Castle with CG²'s LIDAR Fusion GEOINT

