



Hotel Panorama, Levi.

Terrasolid European Users Event 2014

Terrasolid, the Finnish developer of Lidar and image data processing software products, is inviting its product users to attend the company's annual Users Event.

Besides the high-level training sessions, the event will also be a platform for meeting and discussing with other Terrasolid users. The event is being held from 3 to 6 February 2014 in Levi, Finland. ◀

► <http://tw.gs/RbV0ga>



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Oblique Photogrammetry and Young Geo in Focus

Photogrammetry aims at deriving 3D georeferenced products from planar (x, y) coordinates measured in overlapping images captured from the air, from space or from on the ground. This task requires extensive computational efforts. In conventional aerial photogrammetry, the optical axis of the camera is approximately directed in the vertical so that the images are taken more or less parallel to the terrain. Until recently, the technologies for mapping and 3D modelling focused on vertical images measured stereoscopically, since extracting accurate 3D geodata from overlapping, highly tilted images is complex and labour-intensive while it is difficult to view them stereoscopically due to decreasing scale from bottom to top. Today, the extraction of 3D coordinates and derived measurements such as length or area can be conducted by computer using a digital elevation model (DEM) to include the third dimension. Oblique imagery portrays the vertical extension of objects and shows them from a view familiar to everyone. This

allows intuitive interpretation while simple mouse clicking enables a large group of laymen to retrieve distance, height, area and volume. The number of storeys in a building can also be counted easily. Such data is beneficial for taxation, issuing building permits, registration of property rights and fire-fighting but is also valuable for highly automatic creation of textured 3D city models. In the wake of the success of Pictometry, a company which in 2000 started to offer services based on its own digital five-camera system (four in a tilted position arranged as a Maltese cross), oblique photogrammetry has become standard in aerial surveying. To



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give our readers a comprehensive insight into applications and business opportunities, we commence 2014 with a series devoted to oblique photogrammetry. We hope it will be as successful as our UAS series in 2013. The oblique photogrammetry series is a joint initiative of EuroSDR Comm. 1, Delft University of Technology and University of Twente (ITC) and will cover concepts, applications and camera systems currently available on the market. We encourage you to contribute. Markus Gerke and co-authors get the ball rolling with an overview of properties, the most common configurations and applications (see page 18). In the second article, which will be published in the February issue, Fabio Remondino will focus on bundle block adjustment of oblique imagery and dense image matching.

We are also happy to announce that our 'Young Geo in Focus' initiative, which was introduced in the November 2013 issue of *GIM International*, will be continued in 2014. The next contribution is scheduled for publication in the February issue. This bimonthly feature offers recent graduates or postdocs the opportunity to share their experiences with our worldwide audience. If you've just completed an innovative project with your first employer or finalised your PhD research with results that are of interest to practitioners, please let us know. We're looking forward to gaining many valuable insights!

