

Photogrammetric Week celebrates its Centenary in Stuttgart, Germany

The Photogrammetric Week celebrated its centenary in Stuttgart from 7-11 September 2009. This was the 52rd Photogrammetric Week, organised by Professor Dieter Fritsch, head of the Institute of Photogrammetry and Remote Sensing at Stuttgart University. On this occasion nearly 500 participants attended from 62 countries. Photogrammetric Week is a weeklong event which features details of many of the latest developments in photogrammetry, remote sensing and GIS, but it concentrates on photogrammetry as its name suggests. The format is based on invited lectures each morning on academic research and the latest developments of hardware and software from manufacturers, followed by demonstrations of equipment during the afternoons from Monday to Thursday. Evenings involve typical German hospitality.

This year's topics included a keynote presentation on Cloud Computing, a review of the products available from the various photogrammetric software and hardware providers and then papers on; image based data acquisition; aerial, terrestrial and mobile lidar; and value-added photogrammetry. Most papers covered the very latest developments in these topics, so the event was an excellent conference to bring attendees up-to-date with the status of developments in photogrammetry.

The presentations revealed that the number of medium format cameras now available on the market with between 40 and 60Mpixels is growing rapidly. They include Leica RC105, Intergraph RMK D, Vexcel UltraCamL, DiMAC, Applanix DSS, Rollei AIC, and IGI DigiCam. Tests on the new Intergraph RMK D medium format camera with 42Mpixels demonstrate accuracies approaching those achievable by the large format cameras. The applications of the medium format cameras in the future will be interesting to watch. There was a plea by several academics for photogrammetrists to embrace computer vision community to develop more advanced techniques for processing images and to ensure that the photogrammetric community is included in new possibilities of image acquisition and processing, such as crowd sourcing of images. Examples of crowd sourcing of images for later processing were given.

There was a spirited debate on the application of airborne lidar compared with multiple overlapping images for precise elevation determination. Some believe that lidar is an unnecessary technology, while the others recognise the advantages of lidar with its high density point sampling where no texture exists in images and its ability to penetrate the canopy of forest vegetation. Accuracies of current lidars are now better than 5cm on hard surfaces.

3D city models are increasingly being acquired for many cities in Europe; for example, the company Blom will have 200 cities in Europe covered with 3D models by end of 2009 using Pictometry technology. A 3D city model of Berlin encompassing 500,000 buildings is now available. Bing, formerly Microsoft Virtual Earth, aims to collect 3D information on 3000 cities around the world in 5 years and present the information in 3D. The overall cost of acquiring the 3D city models is planned to be reduced by 90%. There were some impressive demonstrations of the completely automatic procedures being used to extract buildings and display them in 3D.

In order to facilitate the development of 3D city models a new graphics standard has been developed CityGML.

The conference was also an excellent opportunity to view developments in photogrammetry in Europe, which one could say is the birth place of photogrammetry. Along with the centenary of Photogrammetric Week, the Austrian society's involvement in the field of photogrammetry turned 100 in 2008, the German Society for Photogrammetry and Remote Sensing celebrated its centenary in March 2009 while The International Society for Photogrammetry and Remote Sensing (ISPRS) will celebrate its centenary on 4 July 2010 in Vienna.

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September 2009