

Giants Eye Up Geomatics

After twenty years existence, Vexcel Corporation has been taken over by giant of the information technology industry Microsoft. The acquisition, which turns Vexcel into a Microsoft subsidiary, was announced at the 2006 annual ASPRS conference, on 4th March to be precise. With this acquisition and the previous one of GeoTango, Microsoft is heading unmistakably towards making geomatics components part of its mainstream-public serving business. But what is it about geomatics firm Vexcel that attracted the gaze of Microsoft?

Imagery Expertise

Basically, Vexcel is a company that makes products for creating maps from aerial and satellite images. Founded in 1985 by Austrian photogrammetrist Dr Franz Leberl, the company focused initially mainly on photogrammetric data-acquisition technology. Although photogrammetry remained an important leg, for example, in early 2004 the Ultra-Cam digital aerial camera* was introduced, the company broadened its product range from 1992 onwards. Under the leadership of president and CEO Dr John Curlander two more technical categories emerged: advanced radar technology and satellite ground systems. Here Vexcel has recently developed ground systems and processing solutions for Japan's Advanced Land Observing Satellite, Daichi, launched on 24th January 2006 (see GIM International May 2006, pp 39). The deliverable ground systems consist of terminals for data reception, capture and sub-processing, while one of the processing solutions comprises software for analysing data acquired by the Phased Array L-band Synthetic Aperture Radar (PALSAR) sensors onboard Daichi.

Click-on Guidance

Let's go back to our original question: why is Microsoft interested in the geomatics industry in general and Vexcel Corporation in particular? Maps are pictures of the Earth, and in everyday life people much prefer viewing pictures to reading text. What is more, the popular mobile phones and navigation systems onboard cars have made the general public much more geographically aware than they were in the past. One of the first questions of a mobile phone call is the ubiquitous "Where are you?" followed by a brief description of the place or places being travelled through. To search by location using a map is thus a very intuitive way of discovering, exploring and collecting information on subjects of interest. For example, having decided to renew the living-room furniture the next move is probably to get orientated by visiting a number of showrooms not too far from the place one is living. A map-based search of the internet will allow a selection to be made of the type of business to visit, the point of departure and the number of kilometres one wants to travel - all with just a few clicks of the mouse. The places selling furniture will then pop up on a map, possibly against the backdrop of an aerial or satellite image. A few more mouse clicks will connect one to a route planner and the websites of the shops of interest, or will select alternatives. In densely populated areas of this Earth, the metropolises, fully three-dimensional representations of the venue may appear on the computer screen, preventing one from getting lost in and between high-rise buildings after arriving at the destination. Information on the price of occupying a parking place may even be provided.

Virtual Earth

Map-based searching enables the collection of all required information from one entry point, avoiding tedious combining of information from several sources stored on different media. So it is not really so surprising that search-engine operators including Google, Yahoo, AOL and Microsoft are demonstrating such great interest in providing map, satellite and aerial imagery-based search possibilities for the mainstream public. Since these operators lack in-house geomatics knowledge, they simply look around for small (in the eyes of these giants) fishes which do have the in-house knowledge and expertise. According to Steven Lawler, general manager of Microsoft's Virtual Earth (VE) team, Microsoft acquired Vexcel "for its personnel, its technology and its (government) relationships" and because the firm has "the leading airborne digital camera in the marketplace". Virtual Earth is Microsoft's platform for bringing maps and images covering the entire digital world to the user's computer screen. The airborne digital camera referred to by Lawler is the Ultra-Cam. It is expected that this camera and the associated processing technology will enable complete automation of production, from collection all the way down to finished map products. It is also expected that a fully automated workflow from beginning to end of the image-production cycle will be a cornerstone of success for Virtual Earth.

Bright Future

Will the acquisition of Vexcel Corporation by Microsoft be just a one-off event, or is it the prelude to a string of similar acquisitions whereby the ICT giants, bit by byte, consume chunks of the geomatics industry? I am sure these acquisitions will not end with the Vexcel take-over. The near future will certainly see us witnessing a chain of geomatics-industry acquisitions by general information and communication technology conglomerates.

And all because the giants in information and communication technology, Microsoft, Google, Yahoo, AOL and many others, have recognised and appreciate the bright future of geomatics.

* see for an interesting expose on operational experiences with the Vexcel UltraCam D digital aerial camera the feature article in GIM International May 2005, Vol. 19, nr.5.

