

Survey and GIS – There Is Still a Need of Bridging the Gap

Last year I attended the annual ESRI User Conference in San Diego, USA. It was the first time when during the conference a so-called Survey Summit under the title “Survey and GIS – Bridging the Gap” was organised.



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In my keynote address I tried to point out the still existing gap in technical issues between surveying standards and practices and those in GIS. These include the problems caused by different interfaces and appropriate standards, which we are still confronted with in spite of all recent achievements in standardisation (OGC, ISO, FGDC, etc.), when working with different GIS products and data sets. We are still some steps away from being able to fully benefit from the potential that is inherent in the GIS development. So one of my messages is that we have – in spite of the already achieved results – to make further efforts to bridge the gap between these different proprietary standards and to develop a common “language” that every GIS application and user is able to understand. One solution could be to introduce a more application oriented approach in the future by developing an interdisciplinary understanding of object oriented information instead of discussing a higher level of GIS-data formats.

I expect that this kind of difficulties could be solved in the near future. FIG and its commission 3 “Spatial Information Management” in particular have a special responsibility to improve the cooperation between geodesists, surveyors and SDI and GIS experts. In Europe there is already a very good relationship between the two parties. Surveying and GIS are even regarded as a couple as it is e.g. demonstrated in the newly introduced name of the former merely named geodesy and surveying studies at my home Technical University of Munich. The new study programme is named “Geodesy and Geoinformation”! The idea behind this is that although geoinformation is needed and a tool for many other disciplines like landscape planning, water management, local governance, social and physical geography, agriculture, forestry etc., there is a special relationship between surveying or geomatics and GIS. One can even say that the relationship is like that of Siamese twins. In some European countries all governmental administrations are requested to use and to make reference to the official geo-based data system of survey authorities when establishing a GIS for their special needs.

This can and will only work when there is a mutual acknowledgement and a deep conviction from all that this is a benefit for all parties and especially for the state and the public.

Unfortunately this ideal relationship and cooperation between surveying authorities and GIS people is not generally and globally common. There is still a large mental gap between both. What is the result? GIS people are blaming surveying administrations for their slowly and expensively – or even not totally finished – map and data products and instead they produce their own data and maps which do not fit to the standards of official work! The surveying people, in return, scold the GIS experts that they waste money and confuse politicians, economy and other clients about wrong standards of data as well as maps. And thereby produce misunderstanding and even disesteem of surveyors public mission and work.

A general demand of privatisation often made by GIS people combined with the hope that all will become better is not only annoying the survey authorities but is also very often the second step of solution instead of beginning with the first step!

This first step – this is my deep conviction as FIG President – is that surveying and GIS people should get and speak together! FIG is contributing and helping to make it will happen in a good and well-balanced atmosphere. The FIG working week 2005 in Cairo is dedicated to the topic “From Pharaohs to Geoinformatics”. It is the first time that surveyors jointly organise their conference with GIS people from global and national levels: FIG together with Global Spatial Data Infrastructure (GSDI-8 Conference), the local surveyors (ECSM), surveying authorities (ESA) and the local GIS experts and associations.

I am confident that Cairo will efficiently help not only to bridge but even to remove the mental gap!