German Language Atlas serves a TB of ECW imagery

ER Mapper - did the geocoding & compression, without needing to buy multiple image processing tools

The Research Institute for German Language - Deutscher Sprachatlas, Germany have undertaken the Digital Wenker Atlas (DiWA) research project showcasing almost a terabyte of Georg Wenker’s Atlas “Sprachatlas des Deutschen Reichs” across their Image Web Server web-site www.diwa.info. The research discipline of linguistic geography is intimately linked to the history of the institute as Wenker’s atlas as it is the first and to date most extensive language atlas in existence, making it the only total survey of the dialects of a language in the world. The linguistic data depicts a particularly clear and cartographic manner, which was collected from over 40,000 locations between 1876 and 1887. Until recently, technical and financial constraints prevented the 1,671 hand-drawn individual maps, which form 557 thematic depictions of the entire language region, from ever being published. Earth Resource Mapping has made it possible to prepare and publish these maps with just one single software program.

In order to be able to record the wealth of detail upon which the atlas was based, the language region was divided into three separately mapped areas. Using Earth Resource Mapping’s flagship product ER Mapper the maps were digitalised, geo-coded and rectified, retaining the original map projections. ER Mapper effortlessly achieved what was technically impossible until now: the seamless montage of the three component maps into a single, overarching one.

In search for a suitable platform for presenting this one cartographic mosaic, almost a terabyte in size across the Internet, Earth Resource Mapping’s Image Web Server was favored. The Image Web Server allows a client to access the data from any personal PC connected to the Internet in seconds by using the highly popular compression format Enhanced Compressed Wavelet (ECW).

Sliding-scale zoom, pan, and overlay functions, plus a flexible database interface form the basis of the interactive application that is designed as a linguistic geographic information system. This allows clients to perform a direct diachronic analysis of dialect phenomena in their spatial distribution for the first time – thus making the DiWA project a pioneer in the field of international linguistics.

Professor Juergen Erich Schmidt, founder of the DiWA project: “DiWA is a scientific innovation, which allows the first wide-ranging analysis of the linguistic changes in the 20th century on the basis of an intelligent software solution.” Duncan Guthrie, Managing Director of the EAME said, “It’s exciting and extremely satisfying to see how our complete product suite has yet again enabled an organization to complete a project that was once thought technically and financially impossible.”

About Earth Resource Mapping
Earth Resource Mapping is the world’s leading image handling and integrated mapping software company. Clients in more than 120 countries use ER Mapper to prepare imagery, ECW to compress and use imagery, and the Image Web Server to serve imagery over the Internet.

About the Research Institute for German Language – Deutscher Sprachatlas
The Marburg-located Research Institute for German Language – Deutscher Sprachatlas is one of the world’s oldest linguistic research facilities; in fact it was Georg Wenker’s “Sprachatlas des Deutschen Reichs” which gave birth to the institute over a century ago. Outstanding result of the institute’s work is the establishment and further development of geo-linguistics.