

Accelerating Automated Map Generalisation in Germany



[1Spatial](#), a global leader in managing geospatial data, has automated map generalisation for the participating members of AdV, the committee that coordinates surveying and mapping in Germany. The result is a 40 percent improvement in production time, from five to three years.

[AdV](#) had previously worked to a five-year production cycle for all of its high-quality map products. However, this was no longer meeting the demands of customers who required information to be updated more regularly, and in shorter periods. Twelve of the 16 federal state members of AdV decided to develop an automatic process to speed up production and reduce manual effort, and founded the IP-ATKIS-Gen project group.

Context-aware solution

[1Spatial](#) was selected as the IP-ATKIS-Gen partner for one of the largest generalisation projects in Europe. Together the two organisations developed an automated, “context-aware” solution using 1Spatial’s experience and software tools. The map data was harmonised and the solution used across the member states, reducing the production cycle from five to three years, marking a 40 percent improvement.

Dr Dietrich Schürer, head of the IP-ATKIS-Gen Technical Committee explained the organisation chose 1Spatial because when they looked at universities who are researching cartographic generalisation, they are only focusing on particular problems whereas they wanted a holistic approach. It was clear that a strong partner was needed with deep knowledge and experience of handling geospatial data.

Generalisation process

The generalisation process meant translating a map product (either a paper map or a digital product) from one scale to another. For the AdV members, producing a single 1:50,000 map sheet took an average of three months. With the state of Rheinland-Pfalz alone represented by 41 sheets at this scale, this required two cartographers working full-time to meet the committee’s five year target.

Alan Paine, senior project manager, at 1Spatial stated 1Spatial’s technology means that IP-ATKIS-Gen members can now meet customers’ complex requirements and make best use of cartographers’ skills while achieving consistent and authoritative data for the whole of Germany, and also deliver them as a web service. With the automated solution deployed across individual states, these can also continue to make improvements, prioritising the remaining manual tasks by the greatest potential benefits if automated.

Both 1Spatial and IP-ATKIS-Gen will be presenting on generalisation at the 28th International Cartographic Conference in Washington, DC, USA, from 2 to 7 July 2017.

The full case study is [available here](#).