

Open Sourcing Generalization Tools

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Over the past several years, software applications addressing problems in automated generalization and computational geometry have been developed at the National Atlas of Canada. These applications are now being released under an open-source license in the hopes that other researchers may be able to provide feedback or potentially benefit from access to the code. There are a number of different applications, the most significant being:

- Nettools*: a set of tools for the analysis and generalization of networks, in particular for the generation of perceptual strokes.
- Linevor*: a tool for the generation of approximate Voronoi diagrams for planar graphs.
- Agg*: a tool for the aggregation of multi-classed area patches.

These generalization algorithms have been used successfully in practice for the production of a 1:4 000 000 scale map of Canada's Northern Territories. The network analysis and Voronoi algorithms have been used in the production of a set of topologically integrated drainage areas for Canada's rivers.

The history of the software, its current design philosophy, and the trials and tribulations of using it in practice are covered.