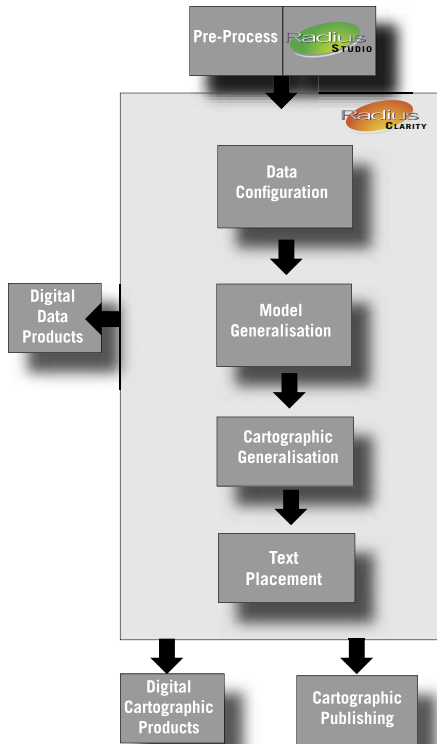


1Spatial Generalisation Workflow



Radius Clarity is 1Spatial's platform for automated generalisation. It provides the facilities to build automated generalisation production flowlines and an environment to develop and research new generalisation algorithms.

The tool set in Radius Clarity enables small-scale digital data to be automatically derived from large-scale source data. Its approach to generalisation is based on intelligent software Agents, a technology developed by the ESPRIT project number 24939.

It employs agent technology; in a breakthrough unique to Radius Clarity, advanced artificial intelligence techniques have been introduced into the map production process. The agents enable the automated map production process to capture context sensitivity during processing.

Usually a human cartographer presented with conflicts uses skill and subjectivity to compromise between the appearance of features and produce a satisfactory solution; Radius Clarity applies equivalent intelligence to reach an equivalent solution automatically, whilst maintaining consistently high data quality.

Radius Clarity's unique technology offers users the opportunity to derive new mapping products from existing data, to speed up the cartographic generalisation process and to reduce manual errors and inconsistencies within products.

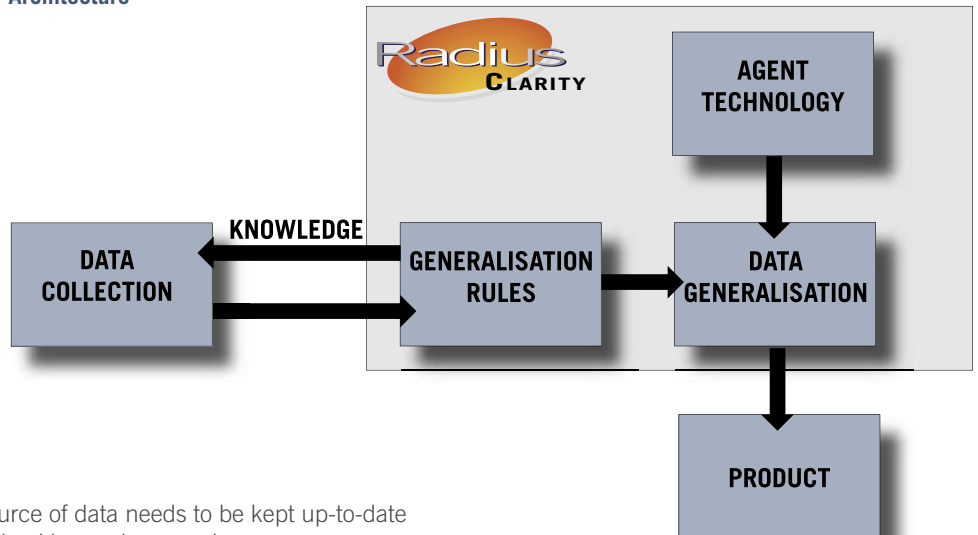
Key Features

- Goal Driven: Goals are set to specify the desired result and the generalisation system works towards that result, acting autonomously to achieve the goal
- Context Sensitive: Different generalisation algorithms will be automatically applied depending on the feature's context to its neighbouring map features
- Self-Optimising: Radius Clarity has the ability to cycle through possible outcomes, adapting the initial geometries repeatedly until the optimal result is obtained
- Object-Orientated: The object-orientated data modelling means that map features (e.g. houses, roads, rivers) become active objects, providing measures, actions and constraints for automated generalisation
- Adaptive: The constraints and algorithms are easily adapted between different feature types and different scale changes
- Automatic: Includes a framework for running automated generalisation processes and a mechanism to instigate generalisation as a batch process
- Configurable: Complete user control of the data model, the target map specification and the generalisation approach

Who is it for?

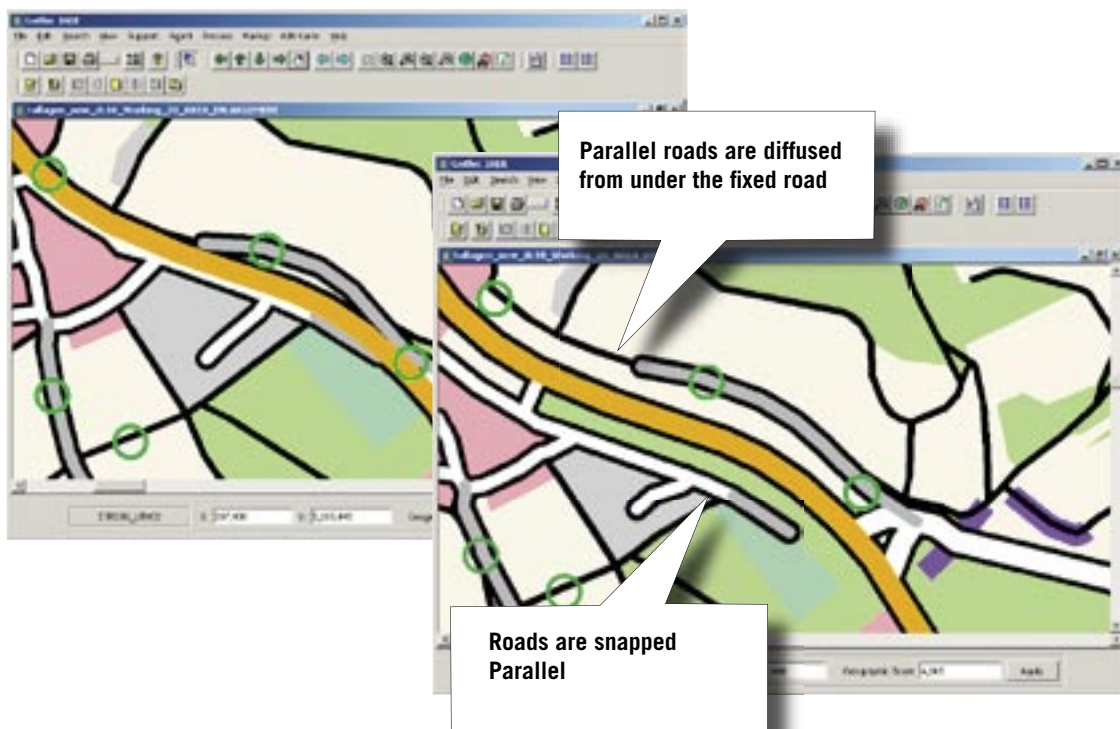
National Mapping Agencies, Commercial Mapping Agencies and any data providers that need to repurpose their data whilst maintaining data quality.

Architecture



Benefits

- Reduces maintenance costs as only one source of data needs to be kept up-to-date
- Saves time and money by limiting manual checking and processing
- Quickly derives new products from existing data, reducing the time to market and opening up new sales opportunities
- Increases the frequency of product delivery into the supply chain; essential given the speed of real world change
- Addresses the reduction in cartographic skill by freeing cartographers to work on mission-critical tasks
- Produces consistent and reliable results that meet customer's expectations, increasing confidence in, and the reputation of, your organisation
- Produces a documented set of known rules for the manufacture of small-scale products from large-scale products, saving time in recording internal processes



In the example above, the screenshots show the results of running automatic line diffusion to resolve visual conflicts where lines are too close for symbolising at the target scale.



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