

# **SPATIAL ANALYSIS AND AGENT PRINCIPLES TO AUTOMATE GENERALISATION PROCESS**

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## **ABSTRACT**

To generalise digital data, some efficient algorithms are required. Recent researches have enriched the library of algorithms allowing interactive generalisation of GIS. The automation of the process requires that the generalisation system is able to find automatically 'where and how to generalise'. The 'where' depends on the capacity of analysis: the system should be able to identify which objects do not respect the specifications. The 'How' depends on the existence of procedural knowledge which are rules that connect conflicts with the algorithms which are supposed to solve such conflicts. The AGENT prototype has been developed to provide the geographical objects with the capacity to qualify themselves (i.e. to recognise automatically the conflicts) and to apply appropriate algorithms to solve the existing conflicts. Moreover, a mechanism of control has been developed in order to backtrack and try another algorithm whenever the results are not as good as required. This paper explains the principles of self-generalisation at different level of details as well as the importance of spatial analysis for generalisation.