

Visual Analytics Approach to User-Controlled Transportation Scheduling

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Abstract:

We consider the problem of scheduling the transportation of items of diverse categories from multiple geographically distributed sources to multiple destinations, e.g. evacuation from a disaster-affected area.

The problem is geographic in nature and involves multiple criteria, some being hard to formalize. It cannot be solved by purely automatic methods and requires a synergy of human and computer. We combine a meta-heuristic scheduling tool based on a genetic algorithm with techniques from the field of visual analytics allowing the user to evaluate tool results and direct its work.