Abstract

Dynamic mapping capabilities are providing enormous potential for visualizing spatial data. Dynamic maps which exhibit observer-related behaviour are particularly appropriate for exploratory analysis, where multiple, short-term, slightly different, views of a data set, each produced with a specific task or question in mind, are an essential part of the analytical process.

This paper and the associated coloured and dynamic illustrations take advantage of World Wide Web (WWW) delivery and the digital medium by using interactive graphics to introduce an approach to dynamic cartography based upon the Tcl/Tk graphical user interface (GUI) builder. Generic ways of programming observer-related behaviour, such as brushing, dynamic re-expression, and dynamic comparison, are outlined and demonstrated to show that specialist dynamic views can be developed rapidly in an open, flexible, and high-level graphic environment.
Such an approach provides opportunities to reinforce traditional cartographic and statistical representations of spatial data with dynamic graphics and transient symbolism which give supplementary information about a symbol or statistic on demand. A series of examples from recent work which uses the approach demonstrates ways in which dynamic graphics can be effective in complementing methods of measurement and mapping which are well established in geographic enquiry.

Keywords
Dynamic maps; Visualization; Cartographic representation; Statistical representation; Tcl/Tk

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