
A Brief, Non-Comprehensive, Biased Introduction to Freely Available Spatial Statistical Software

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Abstract

Applications in the field of spatial statistics are increasing rapidly: more and more people are interested in incorporating space into their analyses rather than simply dichotomizing or otherwise simplifying the treatment of spatial information. GIS is leading this growth, in the sense that *access* to spatial information is pushing the demand for — and the development of — new techniques. While the major players of GIS (such as ArcView and MapInfo) are increasing our access to geo-referenced information, our appreciation of this newfound power must be tempered by the reality that many of the new users don't know much at all about spatial analysis: as Daniel Griffith has said, "... as the issue of computational intensity subsides, and GIS software becomes increasingly user-friendly, more ubiquitously available, and a source for implementing spatial statistical techniques, the danger of malpractice by the non-specialist practitioner grows[23]." We describe in this brief introduction a few of the freely available tools which interested users can count on to help them to get started.

We consider here only the "free" tools (rather than industry standards, which may cost upwards of \$100,000). Many of these software packages are actually free; others are freely available (but the source code may be restricted); some of the software mentioned are available in demo versions. Free software usually comes with a price, however: either it is hard to install, not well supported, poorly documented, or has other problems. Because the goal of this paper is to indicate what is available today, and where (e.g. a URL), this paper should become quickly outdated: the only constant is change....
