

# Development of Integrated Spatial Analysis System Using Open Sources

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## Biography

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## Introduction

GeoComputation which attempts to integrate the quantitative geography and spatial visualization technology, has been very popular among GIS

communities since the beginning of the 1990s. Especially the construction of platform for spatial analysis is one of the important research topics in the advanced countries. Luc Anselin who made *SpaceStat*, a spatial analysis software, has played a significant role in the development of GIS, and recently *the Centre for Computational Geography* at the University of Leeds, *GeoVISTA Center* at the University of Pennsylvania and *Center for Spatially Integrated Social Science* in the University of California, Santa Barbara have given a great impact on the development of spatial and regional analysis using GIS.

Given this background, this study tries to construct the system of integrated spatial analysis which is useful for the GIS education for geography majors in the university. The functions of this system that was built by using only open sources, include the mapping, spatial search, TIN, overlay, point pattern analysis, spatial autocorrelation, multivariate analysis such as regression analysis, factor analysis and cluster analysis, artificial neural network, tessellation, and so on. This system works at Windows98/Me/NT/2000/XP.

This software is now available through the following Internet address([http://land.geo.tsukuba.ac.jp/teacher/murayama/geodbminer/\(Japanese\)](http://land.geo.tsukuba.ac.jp/teacher/murayama/geodbminer/(Japanese))).

## **References**

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