

PACKAGE ID - 000812MLTPL00 MAGENCO

KWIC TITLE - MAp GENeralization COntroller

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LIMITATION CODE -COPY **AUDIENCE CODE** - LIM

COMPLETION DATE - 08/25/1994 **PUBLICATION DATE** - 08/25/1994

DESCRIPTION - MAGENCO is a geographic information systems (GIS) tool for managing geospatial data. It assists in choosing an appropriate level of cartographic simplification (removal of vertices while preserving line character). While an effective algorithm for this task exists (Douglas-Peucker, published in 1973), the tolerance parameter depends on the fractal dimension or the natural or manmade feature, the scale of mapping, and the uses to which the data will be put. It is thus necessary to iteratively test different parameters until an acceptable one is found.

PACKAGE CONTENTS - Media Directory; Software Abstract; Media Includes Source Code, User Guide;

SOURCE CODE INCLUDED? - Yes

MEDIA QUANTITY - 1 CD Rom

METHOD OF SOLUTION - Uses that Douglas-Peucker algorithm as implemented in the GENERALIZE command of the Arc/Info GIS, developed by Environmental Systems Research Institute (ESRI), Redlands, CA.

COMPUTER - MLT-PLTFM

OPERATING SYSTEMS - Arc/Info 6.1.1 under Unix. Uses Bourne shell and either the Motif or OpenLook window manager.

PROGRAMMING LANGUAGES - Arc Macro Language (AML)

SOFTWARE LIMITATIONS - Requires an Arc/Info license.

SOURCE CODE AVAILABLE (Y/N) - Y

UNIQUE FEATURES - MAGENCO saves time and labor in finding an optimal tolerance for the algorithm. It permits simultaneous visual comparisons, rather than repeated manual experiments with manual note-taking. The package includes a slide show illustrating the operation of the Douglas-Peucker algorithm.

RELATED SOFTWARE - Requires Arc/Info 6.1.1

OTHER PROG/OPER SYS INFO - File names are long Unix format. Some are executable shell scripts, with *.sh suffixes.

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OTHER PROG/OPER SYS INFO - (CONT)

HARDWARE REQS - Standard Arc/Info requirements.

TIME REQUIREMENTS - Large data sets may take several minutes to process.

REFERENCES - Informal documentation.

ABSTRACT STATUS - Submitted April 12, 1995. Released AS-IS 5/2/95.
Requires ARC/Info 6.1.1, a third party software package that ESTSC does not have access to. This package is written in the Arc Micro language.

SUBJECT CLASS CODE - RM

KEYWORDS -

COMPUTER PROGRAM DOCUMENTATION
M CODES
GEOGRAPHY
DATA PROCESSING
MAPPING
INFORMATION SYSTEMS
DATA BASE MANAGEMENT

EDB SUBJECT CATEGORIES -

990200 990301

SPONSOR - DOE/CE

PACKAGE TYPE - AS - IS