

cartography bulletin board

Shareware and Public Domain Software for Cartographic Applications

by Joseph W. Stoll, Supervisor-Laboratory for Cartographic and Spatial Analysis, University of Akron

Not all software valuable to cartographers is offered by such companies as Strategic Mapping, Inc., Autodesk, Microsoft, Aldus, Adobe, etc. Along with these and other well-known makers of mapping and illustration software, a parallel development has occurred in the realm of smaller private and public agencies. If one hears of desirable software applications from these low profile sources, it is likely through word-of-mouth and specialty user group publicity. This type of software often exists in the form of shareware or public domain software.

Use of the term "shareware" does not mean that this software is free of charge, but rather that it is permissible to obtain a copy from another user, or purchase a copy for a nominal duplication charge for the purpose of trying it out prior to paying the registration fee. Paying the cost of registration is left to the honor of the individual who chooses to keep and use a copy of the software. The requested or suggested registration cost of the program is usually contained somewhere in one of the program files. Upon payment of the registration fee, it is common for the registrant to receive additional software documentation or program updates and revisions.

Public domain software is uncopyrighted software that has been placed in the public domain by the software author(s). There is generally no registration fee for

public domain software, however there may be a nominal duplication fee. It is not unusual for software that originated as public domain software to be issued in a later version as a commercially available product and vice versa.

Where does this shareware/public domain software originate? Are these programs reputable and reliable? Are they worthy of consideration when there are so many well publicized programs? Surely a software advertisement that is colorfully splashed across one or two pages of a high-profile publication deserves more serious consideration than a small program that is being used by someone to develop classes for choropleth mapping of data! Are there programs which meet specific cartographic needs that the more well known commercial programs are not addressing? Are there programs which provide similar capabilities to some of the more well known commercial programs at a fraction of the cost?

These are the types of questions that come to mind when the subject of cartographic shareware is broached. This column will attempt to answer some of these questions through the introduction of some shareware/public domain programs which can be useful to cartographers. The software listing features programs that have been used by the author personally or were recommended for use by someone who was acquainted with the program. There are certain to be useful programs omitted from this list. The author apologizes for these omissions and solicits additional comments and recommendations regarding the usefulness of programs listed here as well as programs which can be added in a subsequent article on this topic.

In order to provide a simple structure to the software list, programs are classified as **Cartographic Software** or **Other Soft-**

ware. The program title is identified with information explaining where it can be obtained and the cost of registration. A statement regarding how the software is being used (application) is also included.

Cartographic Software (IBM):

Interactive Grid Coordinate Conversion for Personal Computers (Plane-PC)

Available from: United States Geological Survey, Earth Science Information Center, Reston, VA 22092.

Fee: \$2.75 (documentation and listing price), \$42.75 (complete package price-includes IBM Job Control Language to compile and execute the program, FORTRAN source code on 9-track magnetic tape, user's manual, computer listed output of the tape's contents).

Application: Performs the conversion of geographic coordinates to a State Plane Coordinate System or to Universal Transverse Mercator (UTM) coordinates, or vice versa.

Surf-III

Available from: David DiBiase, Department of Geography, 302 Walker Building, Pennsylvania State University, University Park, PA 16802, (814) 863-4562.

Fee: Uncertain.

Application: This is a DOS utility for the conversion of Surfer PostScript files into the Illustrator file format.

The following software is available from the Association of American Geographers-Microcomputer Specialty Group. These programs along with lists of other available programs can be obtained at the following addresses.

IBM: Robert Sechrist, 312 Whitmyre Hall, Indiana University of Pennsylvania Indiana, PA 15705.

(continued on following page)

Macintosh: Nancy Hultquist,
Department of Geography, Central
Washington University Ellensburg,
WA 98926.

MicroCAM (G7) (by S. Loomer)

Fee: The user is permitted to make copies of the complete program and documentation for others provided there are no charges other than duplicating fees not to exceed \$5 per disk. The latest version is available from the author for \$25. Application: This powerful program is used by many academic cartographers for the generation of base outline maps utilizing MicroCAM's support of many of the most used projections. This program is also useful for the instruction of cartographic concepts to students.

MicroCAM Interface (G40) (by Anderson, Rohweder and Brook)

Fee: \$3.00.
Application: Program for the generation of MicroCAM command files.

Cartographic Utilities (G6)

Fee: \$1.00.
Application: Utilities containing programs to facilitate digital cartography including Theissen Polygons Point-in-Poly, Degrees to Decimal.

MicroDEM (by P. Guth)

Fee: \$3.00.
Application: Digital Elevation Model analysis, creation of 3-D terrain models, line-of-sight, inter visibility maps.

Landsat and MicroMSI (by S. Loomer)

Fee: \$1.00 (Landsat), \$4.00 (MicroMSI).
Application: Image processing and analysis. Landsat requires EGA graphics while MicroMSI supports VGA graphics.

DigitizePC (by S. Sulatycki)

Fee: \$1.00.
Application: Digitizer driver software for most digitizers.

Cartographic Software (Macintosh):

Note: With the use of Soft PC (a commercially available program) the IBM compatible programs in this list can be used with Macintosh computers.

Classit

Available from: Contact Barbara Battenfield, SUNY, Buffalo, NY.
Fee: Uncertain.
Application: This is a Macintosh implementation of the Jenks Optimal Classification Method.

PostShade

Available from: Michael P. Peterson, Associate Professor, Department of Geography and Geology, University of Nebraska at Omaha.
Fee: Uncertain.
Application: This is a utility program that assigns shadings to polygons for the creation of unclassed choropleth maps (Peterson, 1992).

Other Software (IBM):

QModem

Available from: Mustang Software, P.O. Box 2264, Bakersfield, CA 93303.
Fee: Free ("test drive" version), \$99.00 (more powerful commercial version).
Application: Powerful communications program which contains numerous features and file transfer protocols (including Xmodem, Ymodem batch and Zmodem batch).

PKZIP

Available from: PKWare Inc., 7545 North Port Washington Road., Glendale, WI 53217.
Fee: \$47.00 (Includes a printed manual, latest version of PKZIP, PKUNZIP and PKSFX software as well as the next software update).
Application: Powerful and easy to use compression software. A must for anyone downloading files from bulletin boards. Will also save large amounts of hard disk space (65-70 percent compression of ASCII files).

Personal File Manager

Available from: Paul R. Culley, 7342 Odingleen, Houston, TX 77095.
Fee: Unspecified contribution.
Application: Easy to use DOS file management software. Allows viewing of file contents, displays hidden files and permits multiple file deletions and copies.

Other Software (Macintosh):

PSinfo

Available from: Bob Dahl, Cartesia Software (contact David DiBiase, Pennsylvania State University)
Fee: Uncertain.
Application: This utility counts points in paths of Illustrator files and reports the longest path. This is helpful in the prevention of errors due to exceeding point limits in a path.

Shareware Sources:

Specialty user groups: These types of groups are excellent places to determine the good shareware/public domain software from the not-so-good. To find a user group, contact: Association of PC User Groups, 1730 M St. NW #700, Washington, D.C. 20036 or FOG International, P.O. Box 3474, Daly City, CA 94015, (415) 755-2000 (Gralla 1992).

Commercial Disk Vendors: These are companies that sell unregistered versions of shareware for nominal prices. The user purchases the unregistered program and then decides whether or not to register with the author. Some vendors have membership fees and include newsletters or magazines as part of the membership. Commercial Disk Vendors include: PC-Sig, 1030 D East Duane Ave., Sunnyvale, CA 94086, (800) 245-6717; Public Software Library, P.O. Box 35705, Houston, TX 77235, (800) 242-4775; and Public Brand Software, P.O. Box 51315, Indianapolis, IN 46251, (800) 426-3475 (Gralla 1992).

On-line Services: These are possibly the most comprehensive sources of nearly every piece of top-notch shareware. The main drawbacks to the use of these services are that they are often difficult to use as well as expensive to purchase. If the user can afford the service, it is possible to access the largest shareware libraries in the world as well as experts in almost any computer application. On-line services include: Compuserve, 5000 Arlington Centre Blvd. Columbus, OH 43220, (617) 4578600 and GENie, GE Information Services, Dept. 02B, 401 North Washington St. Rockville, MD 20850, (800) 638-9636 (Gralla 1992).

As nearly every computer user has discovered, appreciating the true utility of a software package is more likely to occur following extended use and familiarity with fewer applications rather than the brief use of many applications. Most cartographers do not need more software programs to learn, when we have yet to master the programs already in our possession. This is where some of these shareware/public domain programs with their specialized applications can perhaps be most useful. Many of these programs appear to be less daunting to learn than their commercial counterparts and in many cases, when information or technical support is required, direct contact with the person who developed the software is possible. The value of keeping in touch with other users of the software, regardless of the software you use, cannot be over estimated.

Hopefully this brief guide to a few of the available shareware and public domain programs that cartographers are using is helpful—especially to readers who are at a loss for program sources when budgets are extremely tight.

Please send information about additional useful programs which should be included in a subsequent shareware/public domain software guide for cartographers to: Joseph Stoll, Department of Geography and Planning, The University of Akron, 306 Carroll Hall, Akron, OH 44325-5005.

References:

Gralla, P. 1992. *PC Computing Guide to Shareware*. Ziff-Davis Press, Emeryville, CA.

Peterson, M. 1992. Creating Unclassed Choropleth Maps With PostScript. *Cartographic Perspectives*. 12:4-6.

Sechrist, R. 1993. IBM Software Exchange. *Microcomputer Specialty Group of the Association of American Geographers Newsletter*. 9(2):7-10.

Telephone conversations with various colleagues including: Jan Coyne, David DiBiase, Nancy Hultquist, Scott Loomer and Charles Rader. □

map library bulletin board

THE MAP LIBRARY IN TRANSITION

On October 18 & 19, 1993 a joint conference sponsored by the Congress of Cartographic Information Specialists Associations and the Geography and Map Division, Library of Congress will be held at the Library of Congress in Washington, D.C.

The conference was spawned by the massive changes that are taking place in our libraries and the way cartographic information is being created, processed, and disseminated. The specific goal of the conference is to examine the impact of the digital revolution in

the realm of geographic information. The conference will address a variety of themes on this issue. These include:

- *the relationship of map libraries to their parent organizations*
- *the technical requirements for equipment, software, and communications to support digital forms of geographic information*
- *the skills required for the map librarian of the future*
- *defining the collections and services of the map library of the future*

The conference will bring together individuals from a variety of professional organizations. Organizations participating in the conference include:

The Library of Congress
Association of Canadian Map Libraries and Archives
American Congress on Surveying and Mapping
Committee of Southeast Map Librarians (AAG)
Geography & Map Division, Special Libraries Association
International Society of Curators of Early Maps
Map and Geography Roundtable, American Library Association
Map Online Users' Group
North American Cartographic Information Society
Northeast Map Organization
Western Association of Map Libraries

The key elements in the program will be a panel discussion on "Where Map Libraries are Today and Where They Are Headed" and "Prospects for the Map Library of the Future;" reports on GIS Initiatives; The Federal Geographic Data Committee and the Federal Depository Program; and presentations of GIS Applications within