MAILFORM: Sending Manuscripts and Graphics Files by E-mail

Mailform is a Turbo Pascal program allowing conversion and reconversion of any file (word processing, graphics, binary, etc.) into or from a file that can be transmitted by electronic mailing systems. After transmission and reconversion of the mailed file, it is in proper shape for use with the original word processing or graphics system.

During the last few years, electronic mailing systems have dramatically enhanced scientific communication capabilities. These capabilities, however, are limited by the fact that usually only files with a restricted set of printable characters (e.g., A ... Z, 0 ... 9, etc.) can be transmitted. Therefore, there is no regular way of directly exchanging files in binary format (e.g., executable programs, some graphics standards), manuscripts in a mode compatible with word processing systems, and/or graphics via e-mail.

MAILFORM was designed to overcome these shortcomings. The program allows the user to convert any file into a file that can be transmitted by any electronic mailing system. If the addressee has access to MAILFORM, too, he/she easily can reconvert the mailed file into the original word processing, graphics, or binary file. Hence, MAILFORM allows one to exchange compiled programs, graphics in different standards, and text files that can be used directly by different word processing systems.

The algorithm is straightforward. The original file is read byte by byte, and each byte is converted into two hexadecimal characters (ranging from 0 to 9 and from A to Z). The converted file (being twice as long as the original file) can be sent by any e-mail system. The inverting algorithm allows the recipient to reconvert the file. Any information included by the mailing system (e.g., headers) will be detected and omitted automatically. Therefore reconversion will result in exactly the original file.

The use of MAILFORM is easy. After starting the program, the user chooses whether to convert an original file to a file compatible to mailer format or to reconvert a file in mailer format to an original file.

MAILFORM operates on PC-compatibles with 640K, one disk drive, and a graphics card. The program is written in TURBO PASCAL 4.0. It runs under PC DOS, Version 3.3 or higher.

A compiled version of MAILFORM as well as the source code are obtainable from either of the authors for \$10 (to cover the costs of the diskette and mailing). A free copy

of the source code is available by electronic mail. Correspondence should be addressed to Detlev Leutner or Harald Lachnit, Justus-Liebig-University, FB06 Psychologie, Otto-Behaghel-Str. 10, D-6300 Giessen, Germany (e-mail: harald.lachnit@psychol.uni-giessen.dbp.de).

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RPlot Version 2.00

RSoft, Inc. announces RPlot Version 2.00, a significant upgrade of its technical graphing software. RPlot is designed as an MS-DOS utility for direct plotting of scientific and engineering results. In addition to being a useful tool for quick visualization of data, the program's numerous options enable the production of professional, publication-quality figures. Version 2.00 is the first major upgrade of the original program and adds many new features.

The new curve-fitting capability includes options for cubic spline interpolation as well as nonlinear least squares fitting using a unique rational function model. These curve-fitting features can be used either in conjunction with RPlot's graphing options or separately as a stand-alone utility.

RPlot's data-handling abilities have been expanded, allowing it to manage larger and more varied data files and to perform a wider variety of data transformations. In addition, the data transformation feature can now be used to plot a broad range of common functions.

Version 2.00 adds support for PostScript printers and EPS files, including their high-quality Helvetica and Times-Roman fonts. RPlot's font- and text-handling capabilities have also been extended to include more fonts, multiline labels, and many new text formatting options. Other new options allow greater control over axes and legend appearance, as well as other graph characteristics.

The new menu-driven Graph Augmenter allows the addition of a variety of graphical objects to help annotate a graph. These can be positioned using a mouse and/or the keyboard.

Version 2.00 also comes with source code for a C language interface, so that users and developers can incorporate RPlot within their own software. RPlot is available for \$149.00 plus shipping and handling. For educational institutions, RPlot is discounted to \$99.00. For more information contact: RSoft, Inc., 345 Riverside Drive, Suite 2G, New York, NY 10025 (phone: 212-666-0959).