Summary of EMTP News From North America

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   ATP developers in Portland have been as busy as ever in recent months.  Unfortunately, written documentation has lagged, causing the one month delay in printing this present (June) issue of EMTP News.

   The Salford EMTP for 80386-based Intel microcomputers is becoming increasingly important.  But rather than treat it here, all news concerning Salford will be placed at the end of the separate article about SPY windows.

   Apple Macintosh will be used to compile and link EMTP FORTRAN by mid-July at Drexel University in Philadelphia. Yet, interested readers are advised not to expect too much.  No one thus far has shown much enthusiasm for running under Apple Unix (A/UX), which would allow the all-important virtual memory management.  Instead, work will be done using the standard Macintosh operating system and a compiler and linker that provide no memory management at all.  This should cause no trouble for Drexel University, where student laboratories are equipped with computers having a minimum of 5 Mbytes of RAM.  But the average home user, and perhaps even the average industrial user, is not so well endowed.  To conclude, this work is not be expected to provide relief for the average Macintosh user.

   IBM's new RISC workstation, the RS/6000 series of computers, seems to be everything that IBM admirers have been hoping for in recent years.  A separate article by Messrs. Niska, Kiriakedis, and Meyer should provide details in this same issue.

   Distribution of EMTP materials within the USA and Canada continues to astound everyone by its seemingly endless growth.  When Dr. Meyer returned from Leuven at the end of October in 1987, the Can/Am (Canadian/American) EMTP User Group was formed as the vehicle to disseminate the new MS-DOS version of ATP.  The first communication to the general public was a 4-page form letter dated December 2nd.  Whereas the program itself is free of all charge, those wanting a copy of the 781-page ATP Rule Book must pay US$50.  Well, the distribution just goes on and on.  At last count, site licenses exceeded 230 in number.

   Free software (so-called "shareware") that runs under MS-DOS continues to be supplied to the authors by Laurent Dube, the father of TACS and MODELS.  Any who doubt the significance of the Salford EMTP should not forget this important detail (MS-DOS shareware), too.  The size of the Intel microcomputer market has given rise to MS-DOS software that not only is free, but also is better than anything that is being used on expensive workstations.  The file comparison utility  FC by Mike Albert of Boston, Massachusetts, provides a good illustration.  It may be slow, but it is much more flexible and thorough than anything the authors have available at BPA using DEC VAX/VMS (DIFF), Apollo Aegis (CMF), or Sun Unix (diff).  Another example is provided by the superior file compression utility  LZEXE.EXE  by Fabrice Bellard of Grabels, France.  This was recently applied to the MS-DOS version of TPPLOT, which now takes less than half the space that it did after squeezing by MicroSoft's own commercial product EXEPACK.EXE.  Publishing software provides a final important reason to prefer Intel microcomputers (see next paragraph).

   WordPerfect seems to be the most popular electronic publishing software in the United States --- at least for MS-DOS computers.  For many, many months, WordPerfect has consistently outsold competing products according to PC Magazine (refer to the chart entitled "TOP TEN SELLERS -- A Five-Week History" within the "Pipeline" feature).  WordPerfect recently has been adopted by the Can/Am User Group, as the following two pages explain in more detail.  The first page is unchanged from the original printing whereas the bottom two thirds of the second column on the second page consists of material that was copied from later (pages 3 and 4) in the April issue.  This modification serves to illustrate "clip art" as well as  explain the important subject of the secondary printing and distribution of EMTP News within North America.

# Can / Am EMTP News

Voice of the Canadian/American EMTP User Group

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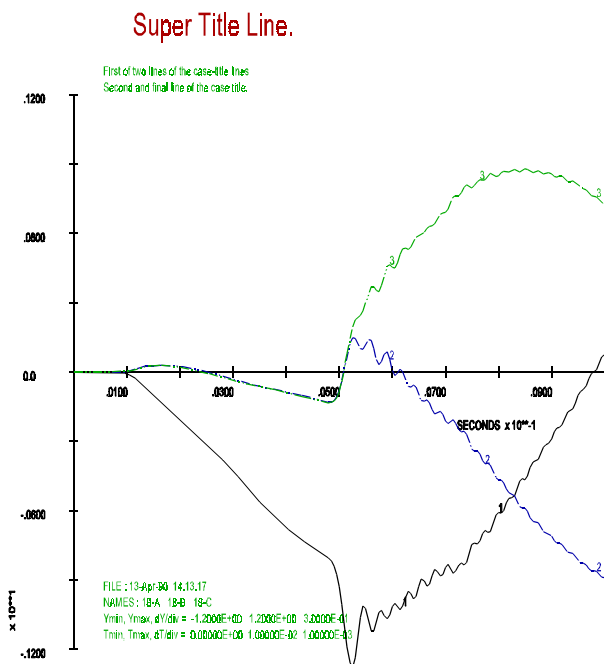West Linn, Oregon 97608
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### WordPerfect Publishing Software

The altered appearance of recent issues of this newsletter is due to changes in the software of electronic publishing. Whereas the founding Editor and Publisher, Mr. Thomas Grebe, used Xerox's Ventura Publisher to produce the first five issues (through the end of 1989), the preceding issue relied upon Lotus Manuscript and only a single character size. The present issue has been improved by movement to WordPerfect Version 5.1 and Glyphix scalable fonts by Swfte International, Ltd. The publishers are happy with the latest enhancement, and expect to continue using their new software for the foreseeable future.



A separate story in this issue explains that HP-GL output of interactive plotting programs now can be sent to publishing software as pictures. In the right hand column will be seen an illustration that was produced using the HPGL command of "TPPLOT" while working on the ".PL4" file of

BENCHMARK DC-3. If the HP-GL file had been sent to a pen plotter, the result would have filled an 8.5 x 11-inch sheet of paper. But publishing software allows further, arbitrary scaling. The width was set to fit the column, and the height was deliberately increased to improve readability. So, those wanting to contribute articles for publication now can add plots to their text! The editors can stretch or shrink both horizontal and vertical scales to match the needs of publication. An illustration should be provided by at least one article in the June issue of EMTP News (look for Wendell Neugebauer's interesting use of TACS to model a rail gun).

Graphics from Lotus Freelance also can be imported by WordPerfect, fortunately. This is the source of the first two small line drawings ("clip art") toward the end. If the one associated with the Minnesota EMTP short course is recognized from former Editor Grebe's issues, it is because he used the same drawing program (Lotus Freelance) with Ventura Publisher. Editor Grebe enhanced the standard offering (seen in this issue) by a hand-drawn graph on the easel, however. The three final sketches (beach, globe, and butterfly) came from WordPerfect itself, which has a limited library of art produced by the associated drawing program DrawPerfect. Prof. Carroll has been using DrawPerfect for more creative applications, as some future story in EMTP News should report.

The soft fonts can be scaled to any size between 3 points and 120 points without loss of resolution. That is, the fonts are stored as formulas rather than bit-maps. Of course, the fundamental accuracy of the laser printer can not be improved, so as font size decreases to zero, there is a problem for printers with reduced precision. The H-P Laserjet Series II used for this publication only had 512 Kbytes of RAM, so is limited to 150 pixels/inch, and the smallest fonts suffer accordingly. An illustration is better than any verbal description:

This 3-Point Line IS THE SMALLEST that is allowed. Note that we must key a lot of text in order to fill the entire line. CAPITAL LETTERS ARE MORE READABLE.

6 Points is the size of this SECOND illustration. Here, too, we lengthen the line.

This 10-Point is the size of NEWSLETTER'S base font.

18 points: OK FOR headings.

## 40 points LARGE.

# 80 Pts.

More than just character size has been illustrated, note. The 18-point line illustrates a font effect named "33% reverse," the 40-point line illustrates "outline," and

finally, the 80-point line illustrates "diagonal left."  There are many such variations from which to choose.

The Zingbat font (one of five that come with the standard package) offers special symbols that are useful.  Several of these will be illustrated using 40-point size:
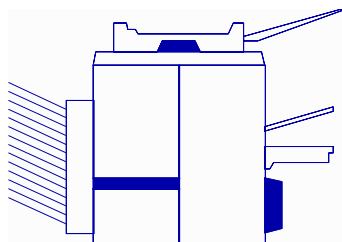
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The user group's new software was not expensive, it should be emphasized.  WordPerfect Version 5.1 was purchased locally for $199 whereas the fonts were purchased by telephone and VISA card for $100 plus $5 shipping and handling.  For more information about the Glyphix fonts by Swfte, see page 37 of the May 15th issue of PC Magazine.  Prof. Dennis Carroll of the University of Florida is an earlier convert to WordPerfect.  He deserves thanks for his helpful advice that encouraged the software change.

### Salford TPPLOT Offers Free Graphics

The separate interactive plotting program "TPPLOT" has been converted to run under the Salford DOS Extender DBOS/386.  This is important for two reasons: First, using a 32-bit compiler and virtual memory management, program execution is faster, and there is no limit on the size of ".PL4" files.  Second, the user avoids paying the $75 royalty for GEOGRAF (by GEOCOMP Corporation) to produce bit-mapped screen graphics.  Salford screen graphics are free, of course.  Salford screen graphics of "TPPLOT" resemble those of SPY "PLOT", but difference is that the appropriate graphical standard must be selected by the appropriate "SET DATA" command.  Reasonable settings for EGA will result if the user fails to request other alternatives.  Use "1" for EGA, "2" for VGA, and "3" for 600 x 800 Paradise Super VGA.  Hard copy can be obtained using either the "HPGL" or the "POST" command (for HP-GL or PostScript output, respectively).    There is not yet any support for Epson-compatible dot-matrix printers, but that is being worked on.  There is hope.  For further explanation, look for an article on the subject in the June issue of EMTP News.

### EMTP News Available Locally

EMTP News, the journal dedicated to royalty-free EMTP development and usage, will be available much cheaper and more easily within the USA and Canada.  Recall that the problems of Belgian francs and international mailing were summarized 3 months ago.  Well, beginning with the June issue, secondary printing and distribution by the user group will be available to members for an annual subscription fee of US$15.    A member may subscribe at any time, but only for an entire calendar year (the four issues of March, June, September, and December).

Preceding issues (if any) for the year will be sent with the next new one.    Other existing rules of the user group are unchanged: Payment must be by check or money order (payable to "Tsu-huei Liu"), no receipts are provided (your cancelled check is your proof of payment, if needed), and the user group does not respond to purchase orders (particularly those that impose added conditions on the transactions).