

**CMS T<sub>E</sub>X Site Report**

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The CMS implementation of T<sub>E</sub>X version 2.0 was released shortly after the 1986 TUG meeting at the end of July. The tape includes TRIP- and TRAP-tested T<sub>E</sub>X 2.0 and METAFONT 1.0 in "load-and-go" form for the CMS environment, the Computer Modern source files, and the rest of the standard T<sub>E</sub>Xware. Also included are Peter Sih's utilities to support the IBM 38xx and 4250 printers. Support tapes for these printers which will include pre-processed fonts are being prepared by volunteers at various sites and should be available soon. CMS TAPE DUMP format versions of the standard GF font tapes are also being made. CMS T<sub>E</sub>X has been improved, made smaller and faster but with greater capacity in this version, due to refinements contributed by several people, notably Chris Thompson of Cambridge University, U.K. The CMS METAFONT is due to Bernd Schulze of the University of Bonn.

The new tape incorporates a new ASCII-to-EBCDIC translation scheme adopted at the 1985 TUG meeting which differs from the previous CMS tapes in two characters: the ASCII caret is translated to hex 5F (EBCDIC logical not sign) and the ASCII vertical bar to hex 4F (EBCDIC solid vertical bar). Although this convention is expected to be more acceptable than the previous scheme for most sites, the ASCII-to-EBCDIC translation will continue to cause some consternation and will need to be worked out at each site. A small XEDIT macro, TEXCHARS XEDIT, is included on the tape to update T<sub>E</sub>X files prepared for CMS T<sub>E</sub>X 1.1 so they will work with the new system.

Another change appearing in the new system is in the format of T<sub>E</sub>X and METAFONT's non-text files such as DVI, GF, FMT, TFM, and BASE. All are now fixed record format with a record length of 1024 bytes. This should ease transfer of these files between various types of computers and allow programs which read and write them to handle the task in a more consistent and efficient way.

Editor's note: After several years of duty as the VM Site Coordinator, Alan is moving on. The new Site Coordinator is by no means a new face to the T<sub>E</sub>X community:

Dean Guenther  
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Best of luck to both Alan and Dean.

## Typesetting on Personal Computers

### Real Typesetting from Your Personal Computer

Alan Hoenig and Mitch Pfeffer

T<sub>E</sub>X's ultimate goal is real typesetting. Now, 300 dpi laser output does look great, but Alfred A. Knopf would not find it acceptable for true camera-ready publication quality. You could have satisfied the late Mr. Knopf by exploiting the device independence of DVI files, and ship these to someone for output from a real typesetting machine. There are a handful of bureaus that perform this service for you, and the purpose of this column is to list them for you, with some facts and figures about each. We play no favorites; the organizations are listed below in strictly alphabetical order.

Please—if any readers know of organizations inadvertently omitted from this list, do get in touch with us; we'll run an update in a future column. If anybody knows of a printer manufacturer willing to support T<sub>E</sub>X output on their devices, please get in touch with either of us or with Barbara Beeton at the AMS.

Firms dealing with Autologic equipment can currently only deal with the AM (Almost Computer Modern) fonts. Autologic has been vague as to when they'll get their act together *vis à vis* the new CM fonts.

#### **American Mathematical Society, P O Box 6248, Providence, RI 02940; (401) 272-9500**

The AMS is happy to accept your DVI files on IBM PC or Macintosh diskette (although no PostScript extensions can be handled). Your output is produced for you by an Alphatype CRS, with a resolution of 5333 dpi. The turnaround is anywhere from one week to a month, with the average being two weeks. The AMS will be using the AM fonts for the next few months, but plans to change over to CM as soon as possible. The AMS is also looking to acquire a new typesetter in the near future, with access to the new machine's full font library.

The AMS has by far the most unusual price structure of anybody. There is a basic setup charge of \$45. Next, you're charged 4.1¢ per square inch of copy. (For example, a sheet measuring  $8\frac{1}{2} \times 11$  with 1-inch margins all around contains a body of type measuring  $6\frac{1}{2} \times 9$  inches for an area of 58.5 in<sup>2</sup>. You'd be billed  $58.5 \times .041 = \$2.40$  for that page.) On top of that, you pay \$2 for each sheet of film used to process the output. Sheets measure  $16 \times 20$ , and can easily accommodate four pages with a type area of  $5 \times 8\frac{1}{2}$ . Finally, there's a 12¢ per page charge for quality control.

Your contact at the AMS is Ron Whitney.

**Ampersand Typographers, 176 Wicksteed Avenue, Toronto, Ontario, Canada; (416) 422-1444**

Ampersand is the lone entry on this list who will definitely accept Macintosh disks, so people using FTL's *MacTeX* should take note. *MacTeX* includes a utility for transforming honest *TeX* DVI files to PostScript files, which are the objects Ampersand wants to see from you. Their output device is a Linotronic 300 with resolutions of 800, 1250, or 2500 dpi. (Ampersand recommends you stick with the medium resolution of 1250 dpi.) Charges begin at \$10 per page and decline to \$8 for more than 100 pages or so. There's an extra \$7 per page charge for film output. Ampersand will accept any job no matter how small and guarantee a 24-hour turnaround, except for exceptionally large jobs. If you have additional questions, please contact Neville Robertson at this company.

**Computer Composition Corp., 1401 West Girard, Madison Hts, MI 48071; (313) 545-4330**

This company delivers your output to you within 48 hours. Your DVI files are reproduced on APS Micro-5 machines, and Computer Composition accepts IBM-PC diskettes and mag tape. As of this writing, *C<sup>3</sup>* has no facilities for accepting Macintosh disks, but if your job is large enough, they'll be glad to work something out with you. Charges range from \$8 a page down to \$4 for large quantities. Minimum job charge is \$45.

*C<sup>3</sup>* can work with your source file to get your output in Times Roman and Helvetica, but that service might require an extra day. Be aware that page and linebreaks applicable to Computer Modern will be different for these non-*TeX* fonts.

For further information, contact Frank Frye, Computer Composition's president.

**Stanford University** is no longer accepting commissions from outside the university community.

**TeXSource, 3333 W. Alabama, Suite 109, Houston, TX 77098; (713) 520-7206**

TeXSource will accept your files on PC diskette, on mag tape, or by modem. (Sorry, no Macintosh.) Your material will be produced by an APS Micro-5, although soon they'll be acquiring an APS-6 which will be able to merge graphics with *TeX* text. Turnaround time is overnight except for horrendously large jobs, and the rates are \$4 per page, dropping to \$2.50 in large quantity. There's a \$25 minimum charge.

I'll just mention some of TeXSource's other products of interest to *TeX* typographers. They can furnish a magtape unit for \$3495 that hooks up to a PC or clone and reads data from a 9-track, 1600 bpi tape into the PC. Of great interest is their announcement that they'll soon be making Autologic fonts in 300dpi resolution available for use by *TeX* on PC's. Their first offering will include Times Roman and variations (italic, bold, and bold italic) in a variety of sizes for a price to be in the vicinity of \$100. Intriguing.

Steve Bencze at TeXSource will be pleased to chat with you if you have further questions.

**Textset, Inc., P O Box 7993, Ann Arbor, MI 48107; (313) 996-3566**

In addition to developing various software-related products for the *TeX* environment, Textset will set your type for you on their APS-5. As usual, they'll accept your PC diskettes but not (yet) your Macintosh files. The turnaround varies between one day and one week. Charges range from \$5.50 down to \$4 per page, depending on volume.

Textset is willing to work to deliver your output using any of the several hundred typefaces in the Autologic library. Contact Gary Grosso at Textset for additional information.

**Universitätsdruckerei H. Stürtz AG Würzburg, Postbox 67 20, Beethovenstraße 5, 8700 Würzburg I, Federal Republic of Germany; telephone (09 31) 385-323**

We have only limited information on this company, with whom we're familiar because of a mailing that doubtless went to many members of TUG. This firm appears ready, willing, and able to deliver *TeX* output on a Lasercomp with resolution of 1000dpi. Output in Monotype Times Roman is impressive and reportedly available in sizes from 4 to 90 points in 1/4-point increments. For additional information, contact Mr. Klingsporn or Mr. Tscheke at Stürtz. (We requested information ourselves, but we didn't get it in time to make the *TUGboat* deadline.)