

ANNOUNCEMENT

TEXTSET, Inc. of Ann Arbor, Michigan

has changed its name to

ArborText™ Inc.

as of November 1, 1986.

As **ArborText** we will continue to offer the same professional **T_EX** support and product line on which we have built our reputation. We are also proud to introduce **The Publisher™**, a future product family that will revolutionize text processing on microcomputers and engineering workstations.

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Or ask the companies that co-market with us: Textset, Imagen, Talaris, Computer Composition Corporation and ASCII.

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For prices and ordering instructions, see separate order form. Current forms may be obtained by writing to TUG, P. O. Box 9506, Providence, RI 02940, U.S.A., or calling (401) 272-9500, ext. 232.

Computers and Typesetting by Donald E. Knuth
A hardcover library of five volumes containing the authoritative documentation on **TEX** and **METAFONT**. Volumes A–E are described below.

Published by Addison-Wesley Publishing Co., Inc., Reading, Mass., 1986.

The TEXbook by Donald E. Knuth

From the cover: “**TEX** represents the state-of-the-art in computer typesetting. It is particularly valuable where the document, article, or book to be produced contains a lot of mathematics, and where the user is concerned about typographic quality. **TEX** software offers both writers and publishers the opportunity to produce technical text, in an attractive form, with the speed and efficiency of a computer system.

“Novice and expert users alike will gain from *The TEXbook* the level of information they seek. . . . The novice need not learn much about **TEX** to prepare a simple manuscript with it. But for the preparation of more complex documents, *The TEXbook* contains all the detail required.”

Volume A of **Computers and Typesetting**.
Published jointly by Addison-Wesley Publishing Co., Inc., Reading, Mass., and American Mathematical Society, Providence, R.I., 1986 edition. (Also available in softcover.)

TEX: The Program by Donald E. Knuth

From the introduction: “The main purpose of the . . . program is to explain the algorithms of **TEX** as clearly as possible. As a result, the program will not necessarily be very efficient when a particular Pascal compiler has translated it into a particular machine language. However, the program has been written so that it can be tuned to run efficiently in a wide variety of operating environments by making comparatively few changes. Such flexibility is possible because the documentation. . . is written in the **WEB** language, which is at a higher level than Pascal; the preprocessing step that converts **WEB** to Pascal is able to introduce most of the necessary refinements. Semi-automatic translation to other languages is also feasible, because the program. . . does not make extensive use of features that are peculiar to Pascal.”

Volume B of **Computers and Typesetting**.
Published by Addison-Wesley Publishing Co., Inc., Reading, Mass., 1986.

The METAFONTbook by Donald E. Knuth
From the preface: “**METAFONT** is a system for the design of alphabets suited to raster-based devices that print or display text. The characters [used to set the book] were all designed with **METAFONT**, in a completely precise way; and they were developed rather hastily by the author of the system, who is a rank amateur at such things. It seems clear that further work with **METAFONT** has the potential of producing typefaces of real beauty. This manual has been written for people who would like to help advance the art of mathematical type design.”

Volume C of **Computers and Typesetting**.
Published jointly by Addison-Wesley Publishing Co., Inc., Reading, Mass., and American Mathematical Society, Providence, R.I., 1986; available Summer '86. (Also available in softcover.)

METAFONT: The Program by Donald E. Knuth
The complete source code for **METAFONT**.

Volume D of **Computers and Typesetting**.
Published by Addison-Wesley Publishing Co., Inc., Reading, Mass., 1986; available Summer '86.

Computer Modern Typefaces by Donald E. Knuth
This reference work contains the full **METAFONT** descriptions of the letters and symbols which comprise the Computer Modern family of typefaces. The preface to an earlier report on this subject stated, “It is hoped that some readers will be inspired to make similar definitions of other important families of fonts. The bulk of this [document] consists of. . . **METAFONT** programs for the various symbols needed, and as such it is pretty boring, but there are some nice illustrations.”

Volume E of **Computers and Typesetting**.
Published by Addison-Wesley Publishing Co., Inc., Reading, Mass., 1986; available Summer '86.

TUGBOAT

TUGboat is the newsletter of the **TEX** Users Group. It contains communications from the Stanford **TEX** Project; articles of interest to installers and users of **TEX** and **METAFONT**; reports of activity at distribution centers and user sites; macros, problems, questions and answers; a calendar of **TEX** and **TUG**-related events; and official **TUG** business.

Three issues are planned for 1987. Memberships and subscriptions are accepted on a calendar-year basis only. All back issues are available.

First Grade T_EX: A Beginner's T_EX Manual

by Arthur L. Samuel

From the introduction: "This is an introductory ready-reference T_EX82 manual for the beginner who would like to do First Grade T_EX work. Only the most basic features of the T_EX system are discussed in detail. Other features are summarized in an appendix and references are given to the more complete documentation available elsewhere."

Originally published as Stanford Computer Science Department Report No. STAN-CS-83-985. Reprinted with permission and distributed by TUG.

The Joy of T_EX by Michael Spivak

This is the user's guide for *A_MS-T_EX*, an extension of Donald Knuth's typesetting program T_EX. *A_MS-T_EX* and *The Joy of T_EX* were written to allow simplified input of mathematical material, and to permit the output to be formatted according to various preset style specifications. Use of *A_MS-T_EX* requires no expertise in mathematics or in computer science; it requires no more than that T_EX itself be available.

Published by the American Mathematical Society, Providence, R.I., 1986.

L_AT_EX: A Document Preparation System

by Leslie Lamport

From the preface: "The L_AT_EX document preparation system is a special version of Donald Knuth's T_EX program. . . . L_AT_EX adds to T_EX a collection of commands that simplify typesetting by letting the user concentrate on the structure of the text rather than on formatting commands. In turning T_EX into L_AT_EX, I have tried to convert a highly-tuned racing car into a comfortable family sedan. The family sedan isn't meant to go as fast as a racing car or be as exciting to drive, but it's comfortable and gets you to the grocery store with no fuss. However, the L_AT_EX sedan has all the power of T_EX hidden under its hood, and the more adventurous driver can do everything with it that he can with T_EX."

Published by Addison-Wesley Publishing Co., Inc., Reading, Mass., 1985.

An Introduction to L_AT_EX by Michael Urban

From the introduction: "This paper is intended to introduce you to the L_AT_EX document preparation system, and to get you working with L_AT_EX as fast as possible. It is *not* a complete reference work on L_AT_EX."

Originally prepared for the TRW Software Productivity Project, 1986. Reprinted with permission and distributed by TUG.

L_AT_EX Command Summary by L. Botway and

C. Biemesderfer

Introduction: "This summary ostensibly represents L_AT_EX control sequences for the software implemented at STScI [Space Telescope Science Institute] as of December 6, 1985 (T_EX 1.3, L_AT_EX 2.08)."

Originally prepared for internal use at STScI; reprinted with permission and distributed by TUG.

VAX Language-Sensitive Editor (LSEdit)**Quick Reference Guide for use with the L_AT_EX Environment**

From the statement of scope and intent: "This guide presents information about the Language-Sensitive Editor (LSEdit) and the environment defined for L_AT_EX. It is a supplement to the *VAX Language-Sensitive Editor User's Guide* and *L_AT_EX. A Document Preparation System. User's Guide & Reference Manual*. This guide acts as a summary and memory refresher for the commands and functions covered in [these manuals]. It is *not* intended to replace either of [them]."

Originally prepared for internal use at Lear Siegler, Inc., Instrument Division, Grand Rapids, Michigan; reprinted by permission and distributed by TUG.

Proceedings of the First European Conference on T_EX for Scientific Documentation, Como, Italy, May 16-17, 1985

Dario Lucarella, Editor

From the preface: "The aim of the Conference was to provide a state-of-the-art survey of current research activities and the latest applications that are growing around T_EX. The topics covered . . . concern the following fields: Documentation systems based on T_EX; T_EX as a tool for authors; Customization of T_EX for non-English languages; Hyphenation; Standardization problems; Facilities for interactive entering and retrieving of formulae; METAFONT and font design; Implementation of T_EX, METAFONT and drivers." All papers are in English.

Published by Addison-Wesley Publishing Co., Inc., Reading, Mass., 1985.

Mathematics into Type by Ellen Swanson

This book covers the publication of mathematics from manuscript to printed book or journal, with emphasis on the preparation of copy for the compositor and the proofreading and makeup of the publication. It will be useful to the author who is directly concerned in the editing of his book, and it should benefit any author who is preparing a manuscript for publication.

Published by the American Mathematical Society, Providence, R.I., 1982.

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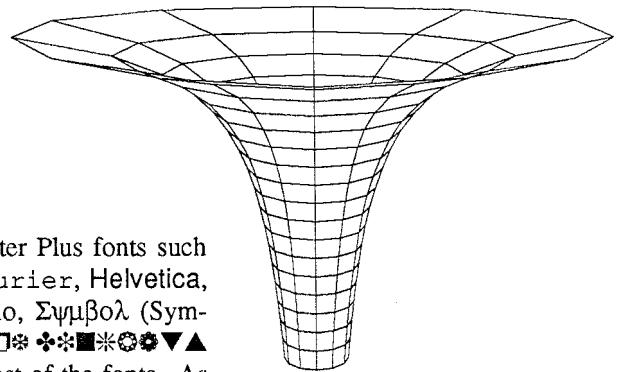
MacTeX™

A complete typesetting system for the Macintosh Plus

MacTeX is the first full version of TeX available for the Macintosh Plus computer. A full implementation, it includes both the PLAIN and LaTeX macro packages with LaserWriter and LaserWriter Plus fonts and the standard TeX fonts. With the package, you also get INITEX and all the sources for the macro packages PLAIN and LaTeX. With this you can generate your own format files on top of an already existing one, or create a completely new one and select it for loading. And MacTeX has passed the "TeX torture test", so you can be sure that the output you get is to the exacting TeX standards.

MacTeX is more than TeX itself. It also contains a built-in multiple file editor and a screen previewer which lets you view the output before printing. Also in the program is the LaserWriter AppleTalk driver to print on a LaserWriter, LaserWriter Plus or any other AppleTalk printer such as a Linotronic 300 (a 2,540 dot per inch laser typesetter). This means that you'll never have to leave the program.

MacTeX will also let you send POSTSCRIPT directly thus allowing effects such as grey text or rotated text. (As you can see above, "Available Now!" is rotated 25 degrees, yet it was set using TeX.) You can also include POSTSCRIPT text files or MacPaint files for graphics. The example on the right was included in printing and the text file containing the POSTSCRIPT code was created using MacTeX's built-in editor.



MacTeX supports all the LaserWriter and LaserWriter Plus fonts such as ITC Avant Garde Gothic, ITC Bookman, Courier, Helvetica, Helvetica-Narrow, New Century Schoolbook, Palatino, Σμβολ (Symbol), Times-Roman, Zapf Chancery Medium Italic, and *□* *◆* *■* *▼* (Zapf Dingbats) with **bold**, *italic* and **bold-italic** for most of the fonts. As well, five LaTeX fonts and three math fonts, *amsy*, *ammi*, and *amex*, are included for full math typesetting and have been converted from pixels into outline form allowing them to be scaled to any size without seeing jagged edges on the letters.

- . **Editor:** Standard mouse-driven Macintosh text editor with Cut, Copy, Paste, Clear plus Find, Find Same, Replace, Replace All, and Goto Line.
- . **TeX:** Standard TeX with on-screen buttons for error handling.
- . **Previewer:** Goto previous page, next page or jump to one at random. View full page (3:1 reduction), full size (1:1) or double size (1:2). Dump the page image to an ImageWriter for proofing.
- . **Printer:** Print the .dvi file on any LaserWriter on AppleTalk, or download a POSTSCRIPT file. You may also save the .dvi file as a POSTSCRIPT text file and download it later.

Also available: **French MacTeX**, containing complete hyphenation tables for the French language.
Font Metric files (.tfm files) for other downloadable Adobe Fonts.

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SOFTWARE:

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- PC.MF** A full METAFONT, version 1.0, for the PC/XT, AT and compatibles. Implemented by Doug Henderson, METAFONT coordinator for TUG. Includes The METAFONT-book and a complete set of Computer Modern typeface description files. Useful for scaling existing fonts and creating new ones. **\$195.**
- PCDOT** Device drivers for dot-matrix printers. **\$95. each.**
- PCLaser** Device drivers for laser printers, including HP LaserJet Plus and PostScript devices. **\$175. to \$225. each.**
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- MAXview** A new screen preview program, written by Max Diaz of Aurion Technology. This program has a good basic set of features and works with 13 different graphics adapters, including CGA, EGA and Hercules. **\$125.**
- DVISCERN** A new screen preview program from n² Computer Consultants. This program also has a good basic set of features, and works with a variety of graphics adapters, including CGA, EGA and Hercules. **\$125.**
- MacTEX** TEX for the Macintosh, from FTL Systems. Includes Editor, Preview and PostScript driver. **\$750. plus \$100. for each additional license.**

FONTS:

- MF Medley** Chel fonts (Computer Helvetica, shown here), and Copperplate, Black Letter and Schoolbook headline fonts. **\$100.**

HARDWARE:

- Cordata Laser Printer** Includes PCTEX, driver and fonts. Only **\$2995.**
- JLASER** Makes any Canon LBP-CX laser engine a TEX device. From **\$699.**

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System requirements: DOS 2.0 or later, 512K RAM, 10M hard disk. Screen preview programs require appropriate graphics adapter. Corona Laser Printer requires additional 512K RAM disk. Prices are for U.S. only and do not include shipping. Orders outside the U.S. must be placed through distributors listed below. MasterCard, Visa accepted.



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Distributors: **Canada:** DocuSoft, Vancouver, (604) 687-0354; **UK:** UniTeX Systems, Sheffield, (0742) 351 489; **Germany:** Kettler EDV-Consulting, Lenggries, (08042) 8081; **France:** Probe Informatique, Trappes, (01) 3062 2603; **Ireland:** UniTeX, Dublin, 772941 x1983; **Australia:** The Wordworks, ACT, (062) 572893; **Mexico:** Aurion, Mexico City, (905) 531-9748; **Scandinavia:** Interbase, Vedbæk DK, (02) 894847.

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PreTeXt: Don't Print Until You're Ready

The PreTeXt™ software program provides complete page previewing capabilities for TeX™ on the new Talaris 7800 terminal, the first page previewing terminal designed for laser printers. PreTeXt allows you to view a TeX document on the terminal exactly as it will appear when it is printed on a Talaris laser printer or any other TeX output device. If the page doesn't look quite right the first time, you can

change the TeX input file until it does. Since you print the file when you're sure it's ready, you save time, as well as paper.

Of course you've heard of other vendors offering DVI to VDU programs. But *only* PreTeXt allows you to view those documents with Talaris's METAFONT-generated library of more than 400 TeX and LaTeX Computer Modern fonts at the resolution of the Talaris 7800—so you can see exactly what your printed page will look like. For

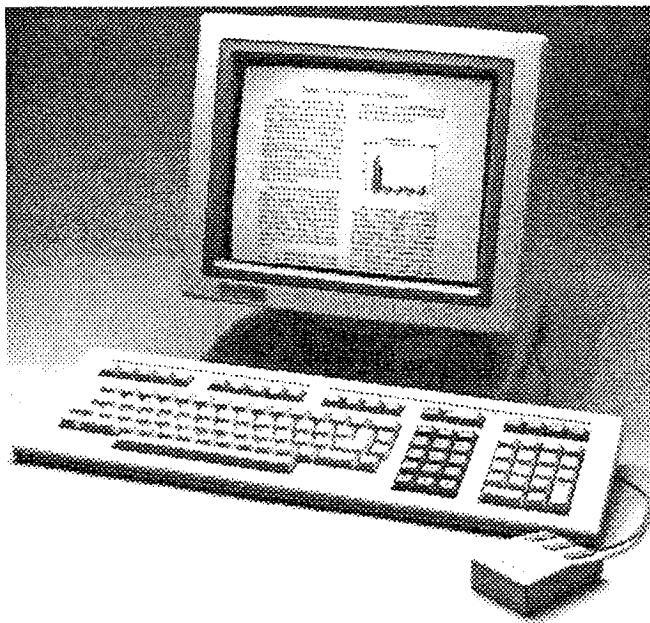
speedy DVI file processing, the Talaris 7800 also features 28 terminal-resident CM fonts. Fonts not resident in ROM are dynamically down-loaded to the Talaris 7800 from the host computer.

And *only* Talaris lets you view integrated text and Tektronix graphics on the screen. PreTeXt processes input from both TeX DVI files and Tektronix 4014 graphics display lists, which gives you the ability to merge graphics files with your text; graphics from ISSCO®, Precision Visuals®, Megatek™, SAS Institute, and others.

PreTeXt and the Talaris 7800 with Talaris's TeXsupport, QDRIVE®, and a Talaris 800, 1200, or 2400 laser printer provides a complete document typesetting system.

PreTeXt is available for systems running DEC VAX/VMS (Version 4) and Berkeley 4.3 UNIX™. For compatibility with the CM fonts, you must be using TeX Version 2.0.

For further information, call or write Talaris Systems Inc., 5160 Carroll Canyon Road, P.O. Box 261580, San Diego, CA 92126; (619) 587-0787.



The Talaris 7800 page previewing terminal and Talaris's new PreTeXt software program permit you to view TeX documents in the same CM fonts that you get on the printed page.