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TEX and TUG NEWS

for and by the TEX community

A Publication of the
TEX Users Group

Electronic version

T_EX and TUG NEWS

Mission Statement

The T_EX Users Group (TUG) provides leadership:

1. to encourage and expand the use of T_EX, METAFONT, and related systems
2. to ensure the integrity and portability of T_EX, METAFONT, and related systems
3. to foster innovation in high-quality electronic document preparation

T_EX and TUG NEWS is a newsletter for T_EX and L^AT_EX users alike: *a forum for exchanging information, tips and suggestions; a regular means of communicating news items to one another; a place where information about T_EX and TUG can be quickly disseminated.*

Throughout the newsletter “T_EX” is understood to mean T_EX, L^AT_EX, $\mathcal{A}\mathcal{M}\mathcal{S}$ -T_EX, and other related programs and macros. *T_EX and TUG NEWS* is produced with the standard L^AT_EX distribution, and is to be as portable a document as possible.

The entire contents of this newsletter are being placed in the public domain. The source file of this issue will be placed in the CTAN archives. Copying and reprinting are encouraged; however, an acknowledgement specifying *T_EX and TUG NEWS* as the source would be appreciated.

Submissions to *T_EX and TUG NEWS* should be short, the macros must work, and the files **must** run without special font or graphics requirements: this is to be a *portable* newsletter (the new font selection scheme has not yet been implemented). Correspondence may be sent via e-mail to tug@tug.org with the subject line NEWSLETTER. Advertisements are accepted in TTN: contact the TUG office for details.

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Editorial

Happy New Year to you all! Lots of things are planned for the year, lots of things are just about to come out: anticipation about $\text{\LaTeX}2_{\epsilon}$ and the new books from Lamport, and from Goossens, Mittelbach, and Samarin; there's a group working to come up with a "TeX Collection" on CD; we're starting to see copies of the long, long awaited series of books from Stephan von Bechtolsheim (Barbara says a review is in the works, so stay tuned to *TUGboat*).

Which brings me to . . . renewals. This issue of TTN is going to both renewed-for-94 members and those of you haven't yet renewed — this issue should give you a glimpse of what's in store for '94. TTN is only part of the benefit of membership: four issues of *TUGboat* are there, as well as the membership directory. So if you haven't done so already — find your renewal form, fill it out and use the return envelope provided to send it all back to our office — just think: your envelope could be enjoying the warm California sunshine in just a short week or two! And you — you could join us there as well at the end of July for our 15th annual meeting. Over 200 people attended the 10th anniversary meeting; let's see if we can beat that for the 15th!

If you want to help revitalise a very long-standing electronic digest, *TeXhax* has a questionnaire in issue `texhax.17`. Get your copy from `/tex-archive/digests/texhax/93/` at the SHSU CTAN site; David Osborne's doing the job, so if you read *TeXhax*, take some time and send in your comments.

Highlights in this issue include yet another neat little macro from Peter Flynn; three pages of new publications (we're now including articles, so do send in items you find — and not just in English); there's an update report on $\text{\LaTeX}3$ — notice how extensive the volunteer effort is; lots of news items, followed by a bit of a teaser; some useful ideas in "Hey — it works!"; meeting reports; and the details for applying for the 1994 Knuth Scholarship.

So much to read! Start now, and enjoy.

Christina Thiele
Editor, *TeX* and *TUG NEWS*

1994 TTN Schedule for Submissions

Apr. issue	*March 1st
July issue	June 1st
Oct. issue	*Sept. 1st
Jan. issue (1995)	Dec. 1st

*Changed from dates previously posted.

Typographer's Inn

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The em-rule or dash

Shortly after TTN 2.4 went to bed, Chet Creider posted a note on `comp.text.tex` about the use of the em-rule. He noted that Chicago style was to set it solid (i.e., no surrounding space)—whereas modern European usage sets it off—but he felt also that a $\frac{3}{4}$ em rule with surrounding spaces would be better. My own macro defines `\emrule` as `\thinspace---\thinspace`, and I've updated this to use Nelson Beebe's recommendation for avoiding linebreaks at such a dash (see last issue). Chet's second point could be solved with

```
\def\hlinefill{\leaders\hrule height3pt depth-2.5pt\hfill}
\def\emrule{\thinspace\hbox to.75em{\hlinefill}\thinspace}
```

which is what I've used in this article, but I'd like to hear other people's solutions.

Extended Plain T_EX

I've always been an advocate of Karl Berry's wonderful `eplain.tex` (usually boring the pants off people with why I think it's better than L^AT_EX), but I hadn't had a chance to dig into v. 2.3 since it came out last March, so I was badly out of date. To me, the nicest bit is the ability to define your own classes of cross-reference, so that `\ref{foo}` becomes sensitive to the class defined by the label `foo`. This means that if you label something you can specify what it is you are labelling, and have it reproduce the right reference.

For example, you can now make your `figure` macro use an argument to define a `fig` class with

```
\definexref{foo}{\number\figno}{fig}
\def\figword{Fig.}
```

so that you can use `\ref` instead of having to type the 'Fig.' etc. every time. If you do a lot of documents with many different classes of reference (page numbers, paragraph numbers, figures, tables, equations, sectioning), this is a good way to overcome having to remember what sort of thing you were referring to.

A good touch is the `\path` macro, to allow line-breaking of long computer-style pathnames, email addresses and the like, at a specifiable set of 'punctuation' characters, and without introducing a hyphen.

I think I've got the hang of using BibT_EX now, too, which is something I've been meaning to do for years. Maybe one day I'll get around to using it to catalogue all the stuff I've been reading all this time.

Footnotes

I called a friend the other day and found her knee-deep in footnotes. Her school apparently works on the principle that no essay/dissertation/thesis is acceptable unless all justifications (citations) are in footnotes. I plan to get her a copy of T_EX when I have the chance, as trying to handle large quantities of footnotes by hand in Word*fect is disheartening, to put it mildly.

Knuth has his own views on footnotes (*T_EXbook*, p.117, and Jill Knuth's comment at the end of the same chapter), which is why it has always puzzled me that the *T_EXbook* does footnotes 'right' (small type, hanging indentation) yet both plain T_EX and L^AT_EX (*and*, alas, **explain!**) do them 'wrong' (body size type, paragraph indentation).¹

Boxes

I recently had to run up a macro in haste for a user who wanted round-cornered boxes for keyboard key references like Enter. I patched it together with the corners from `lcircle10` but it obtrudes unwanted white space into the line above and below, no matter how small and tight I make it (see?). This seems due to the odd reference points of the quarter-circles, but anyone who wants to massage away the lumps can get a copy of `keybox.tex` from `pub/tex on gerbil.ucc.ie`. The overall size of the box must not go above the body of the surrounding type, which is where my try fails. A pint, therefore, at next year's TUG meeting (Santa Barbara, California) for a working solution which fits.

Interletter spacing (again)

This one runs and runs: Wally Martin has sent me some fascinating stuff about the internals of BitStream's `.pl` files, so here's my own display of ignorance: if you bodge a `.pl` file to change the interletter spacing, is that sufficient? My understanding is that once you remake the `.tfm` file, T_EX itself will correctly use the new dimensions, but when the `.dvi` driver runs, any characters in the `.dvi` file which are adjacent and do not have an explicit location on the page will be output on the assumption that the bounding boxes in the font file (`.pk`, `.pfb` or built-in PS font) match those implicit in the `.tfm` file, which will not now be the case. So the printer sticks them side-by-side, but they end up taking more room (or less room) than T_EX thought from its reading of the `.tfm` file. Another pint for the best explanation of this!

¹Who has implemented them 'right'?

New Publications

Peter Schmitt
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- Michael Doob.** *T_EX: Starting from $\square 1$* [“square one”].
Springer Verlag, 1993. viii + 122pp. (softcover). US\$25.00
ISBN 0-387-56441-1 or ISBN 3-540-56441-1.
- “A book designed for the complete newcomer to T_EX. [It] begins with simple exercises on typesetting text and slowly advances into more complex problems such as different types of mathematical constructions and tables. The book presents a comprehensive overview of T_EX with various tables included for quick reference. Readers will learn how to write standard papers of modest complexity with T_EX and obtain the fundamental basis for learning more complex typesetting functions.” [from promotion material]
- Francisco Ortegón Gallego.** *L^AT_EX, primeros pasos* [*L^AT_EX, First Steps*].
Barcelona: Manuales de Informática Masson, Masson, S.A., 1992. xix + 168pp. 2,450 pesetas (approx. US\$19) ISBN 84-311-0649-2.
- This book describes the main features of the L^AT_EX format. It is intended for beginners, but it can be interesting for initiated users, too. The book is divided into six chapters (here called lessons) and three appendices. Lesson one introduces many topics by discussing a complete example of a source file. [There exists an erratum file at [ftp.math.utah.edu](ftp://math.utah.edu/pub/tex/errata) in `pub/tex/errata` named `p-ortegon-gallego.ltx`.] [from a description by the author]
- Eitan M. Gurari.** *Writing with T_EX*.
New York: McGraw-Hill, 1994. xiv + 249pp. US\$29.95.
ISBN 0-07-025207-6.
- Eitan M. Gurari.** *T_EX and L^AT_EX: Drawing and Literate Programming*.
New York: McGraw-Hill, 1994. xiv + 310pp. US\$34.95.
ISBN 0-07-025208-4 (book), ISBN 0-07-911616-7 (book + diskette).
- Peter Scherber, ed.** *Offizin. Schriftenreihe zu T_EX, L^AT_EX, und METAFONT, Band 1*.
Published by DANTE e.V. Addison-Wesley Deutschland, 1994. ca. 190pp. (hardcover). DM 49,90. ISBN 3-89319-396-0.
- This is intended as the first volume in a series of yearbooks published by

the German-speaking T_EX users group. It has been announced for a long time and is available now.

- Lothar Schumann.** *Professioneller Buchsatz mit T_EX: Lehrbuch für Anwender* [Professional Book Typesetting with T_EX: A Textbook for Users]. (Weiterbildung Informatik). München-Wien: R. Oldenbourg Verlag, 1989 and 1991. ca. DM 40. ISBN 3-486-21736-4 (1989; ISBN 3-486-21173-0).
- As a special feature this book contains its own (verbatim) source code as an appendix.

- C. Vanoirbeek and G. Coray, eds.** *EP92. Proceedings of Electronic Publishing, 1992.* (The Cambridge Series on Electronic Publishing). Cambridge University Press, 1992. x + 316pp. (hardcover). \$35. ISBN 0-521-43277-4.
- This is the proceedings volume on *EP92. Electronic Publishing '92. International Conference on Electronic Publishing, Document Manipulation, and Typography* (Swiss Federal Institute of Technology, Lausanne, Switzerland, April 7–10, 1992). Five of the twenty-one papers deal with topics closely connected with T_EX (see Articles section, below).

Articles on T_EX

- Angelika Binding.** “Einsatz von T_EX beim Springer-Verlag”.
Mitteilungen der Deutschen Mathematiker-Vereinigung: 4 (1993), 19–22.
- This article (by a member of the German Springer branch) describes the use of T_EX in the publishing process at Springer.
- George Grätzer.** “AMS-L^AT_EX”.
Notices of the American Mathematical Society: vol. 40, no. 2 (February 1993), 148–150.
- George Grätzer.** “Advances in T_EX Implementations. I. PostScript Fonts”.
Notices of the American Mathematical Society: vol. 40, no. 7 (September 1993), 834–838.
- Suzanne M. Molnar.** “A Tour of Graphical Typesetting on the Macintosh”.
The UMAP Journal: vol. 14, no. 2 (Summer 1993), 97–112.
- The topics discussed in this article include P_IC_T_EX and OzT_EX.
- Richard Morin.** “Tangled up in T_EX”.
SunExpert Magazine: vol. 4, no. 10 (October 1993), 42–46.
- A brief review of T_EX support, including the Comprehensive T_EX Archive Network (CTAN), the T_EX Users Group, and several books on T_EX.

Frank Mittelbach and Chris Rowley. “The Pursuit of Quality: How Can Automated Typesetting Achieve the Highest Standards of Craft Typography?”

EP92. Proceedings of Electronic Publishing 1992: 261–273.

Makoto Murata and Koichi Hayashi. “Formatter Hierarchy for Structured Documents”.

EP92. Proceedings of Electronic Publishing 1992: 77–94.

Gilbert B. Porter III and Emil V. Rainero. “Document Reconstruction: A System for Recovering Document Structure from Layout”.

EP92. Proceedings of Electronic Publishing 1992: 127–141.

Luigi Semenzato and Edward Wang. “Aleph: A Language for Typesetting”.

EP92. Proceedings of Electronic Publishing 1992: 65–75.

Richard Southall. “Presentation Rules and Rules of Composition in the Formatting of Complex Text”.

EP92. Proceedings of Electronic Publishing 1992: 275–290.

Latest issues of other T_EX newsletters

Baskerville. The Annals of the UK T_EX Users' Group: vol. 3, no. 2, December 1993, 24pp.

The editor, Sebastian Rahtz, announces that *Baskerville* will appear six times a year.

MAPs: issue 93.2, 1993, 242pp. [Dutch-speaking user group, NTG publication.]

TUGboat. The Communications of the T_EX Users Group: vol. 14, no. 3, October 1993, 212pp. 1993 Annual Meeting Proceedings.

This issue contains the proceedings of the Fourteenth Annual Meeting, Aston University, Birmingham, England, July 26–30, 1993.

TUGboat: vol. 14, no. 4, December 1993, 84pp.

[**Note:** There was a misprint in the last digit of the ISBN for Christian Rolland’s book, listed in TTN 2,4:3. The correct number is ISBN 2-87908-025-8. –PS]

L^AT_EX3 in '93

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Well, here it is! No, not L^AT_EX3 ... but at least the promised update on the project: we took precious time off from L^AT_EX2_ε production to tell you what else has been happening in and around the project during the last twelve months or so.

A detailed report of the activities of the L^AT_EX3 project team up to the end of 1992 is contained in the L^AT_EX3 Project Report 1991–92 (Mittelbach and Rowley, 1993). This publication, together with several other project papers, can be obtained via ftp from the L^AT_EX3 public archive at Niord.SHSU.edu, in the directory [FILESERV.LTX3PUB]. To get information about files from this archive, send an e-mail message to FILESERV@SHSU.edu with this one line:

```
sendme ltx3pub.00index
```

For those without access to e-mail, a paper copy of it can be obtained from:

L^AT_EX3 Project
c/o Dr Chris Rowley
The Open University
527 Finchley Road
London NW3 7BG, UK

Here we shall continue the story into 1993.

L^AT_EX2_ε One major development that was not anticipated in drawing up our project schedule for 1993 was the decision, made in the Spring by Leslie Lamport and the L^AT_EX3 project team, to produce L^AT_EX2_ε. This is the version of L^AT_EX which consolidates L^AT_EX 2.09 (the current version), incorporating an enhanced version of the new font selection scheme; it is thus intermediate between L^AT_EX 2.09 and L^AT_EX3. Further details of this can be found in TTN 2,4:10–11; work by the L^AT_EX3 project team and Sebastian Rahtz on its implementation is nearing completion (as of mid-December) and further detailed information will be made available as soon as possible. This work will all help in the creation of L^AT_EX3 itself, either directly as part of the new system or by its importance in understanding the requirements of, and implementation possibilities for, several aspects of the new system.

NFSS2 This enhanced font selection scheme, the New Font Selection Scheme 2 or simply **NFSS2**, was designed and implemented by Frank Mittelbach and is based on a prototype extension to **NFSS** written in 1991 by Mark Purtil. It extends the original version in several important directions, including support for the following:

- font encodings — needed for multiple language documents;
- scalable fonts — e.g., PostScript fonts;
- math symbol fonts — e.g., Lucida Math and Linotype Pi fonts
- math alphabets — e.g., Script, Fraktur.

The software for **NFSS2** was extensively tested during the first half of 1993 and is now being integrated into L^AT_EX2_ε.

Activities Although work on L^AT_EX2_ε and **NFSS2** has taken up a large proportion of our time during the year, we have also been pushing ahead on other aspects of L^AT_EX3. Two working meetings have been held in Mainz, in March and September 1993: each was of about one week's duration and involved 6 or 7 members of the core team. We are grateful to the Zentrum für Datenverarbeitung, Johannes Gutenberg Universität, Mainz, for providing excellent facilities to support these regular workshops which provide a much needed opportunity for uninterrupted concentration on the details of the system development.

We have also been active in setting up liaisons with other projects and working groups. Within the T_EX world there are now close working relationships with the Technical Working Groups (TWGs) covering math font encodings and multilingual issues. In the wider world of document processing we have contacts with the Euromath project (which has produced a documented-oriented environment for multi-application based research and teaching); with the ISO committee preparing DSSSL (a standard for describing some aspects of document processing and formatting); and with the department of typography at Reading University, one of the (regrettably few) centres of research excellence in this area.

Progress As a result of this activity, significant progress has been made towards crystallising the details of our plans in many areas. The following have been the major areas of activity this year:

- production of suites of test files;
- the error/help interface;
- the document interface, e.g., the use of ‘name=value’ syntax to extend the idea of optional arguments;
- multilingual documents — including liaison with the TUG Technical Working Group on this subject;
- float processing;
- the specification, storage and use of context-dependent formatting rules;

- specification of the interface to bibliographical software;
- implementation of the kernel data structures required to support the programming interface;
- the internal representation and analysis of the structure of documents;
- the interface between typesetting and graphics;
- encoding (using 256-character fonts) of math characters (and other specialised glyphs) — joint work with the TWG on math font encoding.

Font encoding The very successful joint venture between the L^AT_EX3 project and the TWG on math font encoding was made possible by the generous support of the GUTenberg user group in funding and organising the participation of Justin Ziegler, an undergraduate from the Collège des Mines, Saint Etienne.

Justin's three-month attachment to ZDV at Johannes Gutenberg Universität, Mainz, was what in the UK is called 'work experience' — and work he certainly did — but he clearly interpreted this to mean that he should get every one else working too! So that is precisely what happened and working with him was certainly 'an experience' (a most stimulating and enjoyable one) for the rest of us. As a result of his enthusiasm and abilities, the brief of this group now encompasses not only math fonts but also fonts for the many other non-alphabetic characters used in more traditional typesetting.

Intermediate results of this work were presented in a very lively workshop session at the TUG annual conference in July; full results and recommendations will be published when the work is complete. The fruitful outcome of this collaboration will be of great and lasting benefit to both the L^AT_EX3 project and the whole T_EX community; so we all owe a lot to Justin himself, to ZDV and its staff, to the members of the TWG and the many others who took part in the discussions, and to GUTenberg.

The Big Thank You's It is a mark of the high level of enthusiasm and support for the project that it is all-too-difficult to explicitly thank every individual for their contribution to its continued progress. So first a sincere apology, and very special thanks, to anyone who feels left out. Next a heart-felt, if impersonal, thank you to all those who are regularly making individual donations to the project fund administered by the TUG office, and to the TUG office staff for the efficiency of this administration — they are keeping careful records of all the income to this fund so that proper acknowledgments can be made at the appropriate time. Some of these personal contributions are being held by other user groups (national, linguistic and geographical) to whom they were paid so these thanks are extended to their treasurers for the extra administrative work involved.

Two individuals whose efforts we wish to highlight here are Michel Goossens and Alexander Samarin who conceived and, with Frank, have written and produced *The L^AT_EX Companion*, published by Addison-Wesley (1994). Fifty per-

cent of the authors' royalties for this book are being directly donated by them to the L^AT_EX3 project — indeed, the fund has already benefited greatly (as will you, when you buy the book!) from their hard work on this activity (i.e. from the 'advance royalties' they have earned). It documents many of the new facilities in L^AT_EX2_ε, together with NFSS2, and it describes more than 150 widely available packages which extend the range of L^AT_EX's typesetting abilities. It also contains advice, with examples, on customising L^AT_EX2_ε and producing your own styles, packages and options.

Addison-Wesley, personified by Peter Gordon, have been unfailingly supportive of our efforts in the many ways which will be well-known to anyone who has worked with such an experienced publisher. The forms of this substantial support have been very practical and are greatly appreciated by all of us.

We have also received substantial financial support, and other encouragements, from the following T_EX user groups: NTG (The Netherlands), ukT_EXug, GUTENBERG (France), DANTE (Germany) and the Nordic Group.

Important though it is, money is by no means the only source of essential nourishment for this kind of project. Equally important are creative ideas, and the necessary task of 'adding value' to these ideas by evaluating them and writing well-researched and well-argued reports. All of these require not just skills but also the donation of an individual's time in exercising those skills — and we have been enormously encouraged by the high level of such contributions (in both quantity and quality). In particular, the work of the volunteer-task coordinators deserves special attention; so praise and thanks for those who have already produced reports and other useful materials, and 'anticipatory acknowledgment' of the efforts of those still labouring in this vineyard.

Perhaps this is an appropriate place to point out that the volunteer tasks do not yet all have co-ordinators; so we encourage you to take a look at the up-to-date situation (outlined at the end) and measure the vacancies against your own talents. Also, even where there is an active co-ordinator there are still plenty of opportunities for others to get involved.

For the latest information about these tasks and the volunteers involved, get the file `vol-task.tex` from the archive at `Niord.SHSU.edu`.

Bibliography

- Michel Goossens, Frank Mittelbach and Alexander Samarin. *The L^AT_EX Companion*. Addison-Wesley, Reading, Massachusetts, 1994. [To appear.]
- Frank Mittelbach and Chris Rowley. L^AT_EX 2.09 → L^AT_EX3. *TUGboat*, 13(1):96–101, April 1992.
- . The L^AT_EX3 Project Report 1991–92 (v.1.00). 1 April 1993. Filename: `13d004.txt`, location: `Niord.SHSU.edu: [FILESERV.LTX3PUB]`.
- Frank Mittelbach, Chris Rowley and Michael J. Downes. Volunteer work for the L^AT_EX3 project. *T_EX and TUG NEWS* 1,3:18 (November 1992).

Volunteer task list

#	Title	Co-ordinator
vt01	Volunteer list management	George Greenwade
vt02	Validating L ^A T _E X 2.09	Daniel Flipo
vt03	Metacomments for smart editors	David Love
vt04	Syntax proposal for bibliographical commands	Pedro Aphalo
vt05	Research on syntax for tables	Ed Szynter
vt05	Research on syntax for chemistry	Chris Carruthers
vt06	Research on syntax for commutative diagrams	Paul Taylor
vt07	Experimenting with <code>\emergencystretch</code>	– open –
vt08	Research on indexing commands	David Love
vt09	Research on footnote/endnote conventions	– open –
vt10	Syntax diagrams	David Morgan
vt11	BNF notation	Mike Piff
vt12	Research on use of shorthand forms	Julio Sanchez
vt13	Research on figures and captions	Claus Langhans
vt14	Research on the use of T _E X's <code>^^</code> conventions	– open –
vt15	Research on typographical conventions and requirements in multilingual environments	Bernard Gaulle
vt16	Research on the most commonly used L ^A T _E X styles	Rolf Lindgren
vt17	Math font handling	Justin Ziegler
vt18	Converting numbers to textual form	– open –
vt19	Rewrite of MakeIndex in WEB	David Love
vt20	Write other auxiliary programs	– open –
vt21	Bibliography style programming	– open –
vt22	Bibliography style requirements	Robert Tolksdorf
vt23	Survey of existing L ^A T _E X style options	David Jones
vt24	Timing tests	Jonathan Fine

— . Volunteer work for the L^AT_EX3 project. *TUGboat*, 13(4):510–515, December 1992.

Chris Rowley. L^AT_EX 2.09 → L^AT_EX3: an update. *TUGboat*, 13(3):390–391, October 1992.

Chris Rowley and Frank Mittelbach. L^AT_EX2_ε—the new version of L^AT_EX. *T_EX and TUG NEWS* 2,4:10–11 (October 1993).

(L)T_EX News

Announcing Elsevier Science .sty files

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Elsevier Science is pleased to announce the availability of their ESP-L^AT_EX package from the Comprehensive T_EX Archive Network (CTAN).

In order to assist authors in preparing their papers for articles published by Elsevier Science Publishers in such a way that their files can be used to print the article, we have developed a L^AT_EX package called “ESP-L^AT_EX”, consisting of a document style **espart** and a booklet with instructions to authors.

Authors are kindly requested to use the **espart** document style. This document style, which produces a preprint-like output, enables the Publisher to adapt the article to the layout and style of the journal in which the article will appear (the Publisher will replace **espart** with a journal-specific production document style).

The ESP-L^AT_EX package contains the following files. Please make sure that you retrieve all these files.

<code>readme.esp</code>	Brief instructions.
<code>espart.sty</code>	The main document style. Copy this to the directory where all other <code>.sty</code> files are.
<code>espart12.sty</code>	The point size-related definitions. Copy this to the directory where all other <code>.sty</code> files are.

The ESP-L^AT_EX package can be obtained using anonymous FTP from the Comprehensive T_EX Archive Network (CTAN) in subdirectory `/contrib/elsevier`.

Questions concerning the L^AT_EX author-prepared article project and requests for the booklet with instructions to authors should be directed to the address on the inside cover of one of the journals participating in the project.

ArabT_EX v3.00 now available

Klaus Lagally
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As of today, Nov 23, 1993, a new version 3.00 of ArabT_EX is available by FTP from `ftp.informatik.uni-stuttgart.de`. The package resides in the directory `/pub/arabtex/` (see the README file for details). The identical package is also available from the CTAN server network:

Aston	<code>ftp.tex.ac.uk</code>	<code>/pub/archive/languages/arabtex/</code>
SHSU	<code>ftp.shsu.edu</code>	<code>/tex-archive/languages/arabtex/</code>
Stuttgart	<code>ftp.uni-stuttgart.de</code>	<code>/pub/tex/languages/arabtex/</code>

ArabT_EX is a T_EX macro package with associated Naskh fonts designed to generate the arabic writing from texts coded in an ASCII transliteration. It is compatible with plain T_EX, L^AT_EX, NFSS, and the EDMAC package.

Version 3 now supports the codes ASMO 449 and ISO 8859-6. There is a large number of new commands, allowing for better formatting and catering for many details of historic writing conventions. Verbatim input now works correctly. Numerous small corrections have been introduced, but the user interface has not changed essentially. As well, the documentation has been thoroughly updated.

French Style Files, v3.25¹

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I'm pleased to announce the availability of the so-called "French Style Files" v3.25 on the French archives server of GUTenberg at `ftp.univ-rennes1.fr` in the subdirectory `pub/GUTenberg/french`. This package is intended for people who have to deal with French documents or multilingual documents with T_EX, L^AT_EX, etc. . . .

Note that almost all files have been modified from those which were contained in v3.20, distributed in May 1993. Improvements include the following general areas: French typography style; addition of NFSS2 capabilities, which will not change appreciably under L^AT_EX2_ε; use of `\begin{french}` and `\end{french}`; the files now run with `TeX--Xet`; the German contribution has been updated by Marc Torzynski; additional new tools have been introduced; and some bugs have been corrected. As well, all files now have a checksum verification.

New modes.mf file v1.1 available¹

Karl Berry
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I have released version 1.1 of `modes.mf`. You can get it by anonymous FTP from `ftp.cs.umb.edu:pub/tex/modes.mf`. You can also get it by e-mail from George Greenwade's (thanks, George!) file server if you cannot FTP: e-mail `fileserv@shsu.edu` with a body of `sendme modes`.

This file is a collection of METAFONT `mode_defs`. It also makes common definitions for write/white printers, 'special' information, and landscape mode.

The mode for the HP LaserJet 4 has completely new values, from `mbr@research.nj.nec.com`; his seemed better tested than previous. The IBM 4019 is now a separate mode from the IBM 4216. This version again runs through T_EX.

As always, thanks to the contributors.

¹[This item and the next were originally posted to `TeXhax` no. 16 (10 Dec. 1993) – Ch.]

New list for linguistics and T_EX

Christina Thiele
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Through the good graces of George Greenwade, `ling-tex` was set up in early December for people who are interested in the intersection of T_EX and linguistics. If you want to subscribe, send this message:

SUBSCRIBE `ling-tex` "your real name in quotes"

to this address: `LISTSERV@shsu.edu`, and an introductory message will beam back to your account.

New list of publications available

Tired of looking through all your issues of TTN, trying to find that reference to a new book or newsletter? Or curious to see if a book listed in TTN has been reviewed in *TUGboat*? Here's your answer: `ttnpubs.tex` collects all the "New Publications" columns from TTN issues, and includes a margin note identifying the *TUGboat* issue which contains the review (and most all our books end up getting reviewed). To get the file, FTP to any of the CTAN archives (we post to SHSU, so it may appear there first), and check out the subdirectory `/tex-archive/digests/ttn`. And of course, if you want electronic copy of past issues of TTN, this is where you can also find them.

Teaser

Malcolm Clark sent me the following little teaser. We'll award a prize to the first three correct answers — uh, we don't know what the prizes will be just now, but I'm sure it'll be something extremely appropriate ...

What is special about this sentence:

"No mean feat often meant fame to team men on a foam mat."

Warning: Malcolm says "Users of boggle are excluded."

Christina says: "Whoever can explain 'boggle' to me gets a Flynn-esque beer at the annual meeting in Santa Barbara!" Winners will be announced in the next issue of TTN. Suggestions for further puzzles always welcome ;-)

“Hey — it works!”

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G'day!, as they say down here, and welcome to “Hey — it works!”. This column is designed for little tricks — even ones that seem trivial or inelegant — that others may find useful. If you have any such items, please send them in to me at the address above. I am particularly looking for short items (up to about a page), although in this issue we have space for a few longer ones. These are: a piece from Donald Arseneau describing a smart macro for emphasis, which automatically adds italic corrections where they are necessary and doesn't where they are not; one from Ed Baker about a little T_EX utility for formatting address labels interactively; and one from Fred Lauwers describing a macro for making dropped capitals.

But just before we start... Further to David Lau's piece on striking through text in the previous issue, Alan Hoenig (ajhjj@cunyvm.cuny.edu) observes that ‘*the* right way to strike through text [is to] use virtual fonts’; this approach works for text of arbitrary length, too, and also works for underlining.

Italic correction everywhere

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Many people are not aware of, or simply ignore, the ‘italic correction’ command (\backslash) that should be inserted after slanted text for proper spacing (see the *T_EX-book*, p. 14). Compare *ddd* with *d*dd**. It is a tedious and thankless task inserting such corrections in collaborators' flawed L^AT_EX input. Instead, it would be nice to have L^AT_EX insert the corrections automatically. A problem that arises is that the \backslash should be omitted when followed by low punctuation (period or comma). Furthermore, when the surrounding text is italic, \backslash emphasis produces *roman* text, and the italic correction should be placed *before* it. This is a particular problem for macros like \backslash newcommand{\abi}{\em ab~initio\backslash} that do not know their context. Here is a replacement for L^AT_EX's \backslash em command that correctly inserts its own italic correction in these cases so you can avoid typing \backslash altogether.

First, modify the \backslash pem command slightly so that it inserts a ‘smart’ italic correction; either immediately if the text switches to roman, or launching it towards the end of the group if the text switches to italics.

```
\def\pem{\ifdim \fontdimen 1\font>0pt \rm
  \else \it \expandafter\aftergroup \fi \smartitcor}
```

or, for NFSS,

```
\def\pem{\@nomath\em \ifdim\fontdimen\@ne\font>\z@ \normalshape
  \else \it \expandafter\aftergroup \fi \smartitcor}
```

The smart italic correction is only executed in horizontal (rl) mode. When it is executed, it first looks at the next character (token) to see if it is a comma or period (or something else that is short).

```
\def\smartitcor{\ifhmode \expandafter \itpunclook \fi}
\def\itpunclook{\begingroup \futurelet \ITCtempa \itcortest}

\def\itcortest{%
  \def\ITCtempb{\ITCtempa}%      test next character (\ITCtempa)
  \def\ITCtempb{\ITCtempa}%      hide next when skipping
  \ifcat\noexpand\ITCtempa ,%    if it could be punctuation,...
    \setbox0\hbox{\ITCtempb}%    check its size...
    \ifdim\ht0<.3ex %           and if it is short,...
      \let\itcordo\endgroup %   suppress italic correction
    \fi\fi \itcordo}%           otherwise, do it
```

The `\noexpand\ITCtempa` is used in case the next token is a macro, which should not be expanded out of context. The extra level of definition, `\ITCtempb`, is used in case the next token is a conditional command like `\if` or `\fi` which could not be skipped over properly when the `\ifcat` is false.

Finally, the italic correction must *precede* any spaces or it is useless.

```
\def\itcordo{% Put \/ before any preceding space.
  \skip0=\lastskip
  \ifdim\skip0=0pt\else\unskip \/\hskip\skip0 \fi
  \endgroup}
```

Here we check for preceding space (glue or skip) by comparing the length of `\lastskip` with `0pt`. If the previous glue was `\hfil` there will be no italic correction, but it is probably unnecessary in that case anyway.

These macros are intended for `\em` delimited by grouping, such as

```
My book is called {\em You named the baby {\em what?!}}\
\begin{em}
  Sam Spade had {\em never} seen that {\em modus operandi} before.
\end{em}
```

My book is called *You named the baby what?!*
Sam Spade had never seen that modus operandi before.

There might be problems if you use `\em` improperly as an on/off switch or if you rely on implicit grouping; *e.g.*, if you use it in a save-box (`\setbox`) or in a primitive `\halign` without extra braces (although a tabular environment works fine). Even when it fails, the italic correction usually just disappears harmlessly. And hey, it works for the 99⁴⁴/₁₀₀% of the time that you emphasize `{\em this way}`.

Plain T_EX, Self-Prompting, Label Maker

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Here's a little, self-prompting, plain T_EX, address label maker that I use for making self-adhesive address labels. Each label is 4in by 3in, and the top half is pre-printed with the company logo and return address.

The T_EX file creates a label of the following format:

```

First-Name Mid-Init Last-Name
Company-Name
Address-1
Address-2
City, State ZIP

```

Here are some of the features:

- If any prompt is answered with `(Enter)`, nothing will be typeset. That is, no blank lines will appear in the address label.
- Labels are printed with the `cmsbx10` font at 12pt. The U.S. Postal Service prefers sans-serif fonts.
- `\baselineskip` is set to 15pt to increase legibility.
- `\voffset` can be adjusted to offset the vertical placement of the address origin. (This example doesn't use `\hoffset`, but it could be added easily if you need it.)

Although this example uses a USA addressing format, you can easily adapt it to any country.

The tricky part is getting T_EX to do nothing if you simply press `(Enter)` as an answer to a prompt. Here's the code segment that does the trick:

```

\setbox0=\hbox{\PersonName}
\ifdim\wd0=0pt\else\line{\box0\hfill}\fi

```

Notice that the 'true' action is null — there is nothing between `\wd=0pt` and the `\else` action.

The answer to the `\PersonName` prompt is stored in box 0. The width of box 0 will be non-zero if you entered any characters. However, the width will be

0pt if you simply press Enter. Next, the `\ifdim` command queries the width of box 0. If the answer is 0pt, nothing happens. Otherwise box 0 is typeset as an address line.

It's small, but useful. I'd like to thank Dr. Richard Kinch, Ithaca, New York, for the inspiration to create this utility.

```
%===== Address Label Generator
\font\cmssbxii = cmssbx10 at 12pt
\obeylines\cmssbxii
\baselineskip = 15pt
\noindent
\voffset = 1in
\immediate\write16{This Program will prepare an EBTS label for you}
\immediate\write16{It will ask for the following information:}
\immediate\write16{      First-Name MI Last-Name}
\immediate\write16{      Company Name}
\immediate\write16{      First Address Line}
\immediate\write16{      Second Address Line}
\immediate\write16{      City, State ZIP}
\immediate\write16{Just follow the prompts}
\immediate\write16{Enter First-Name Middle-init Last-Name}
      \read-1to\PersonName
\immediate\write16{Enter Company Name}
      \read-1to\CompanyName
\immediate\write16{Enter Address Line 1 of 2}
      \read-1to\AddressLineOne
\immediate\write16{Enter Address Line 2 of 2}
\immediate\write16{Press Enter if Blank}
      \read-1to\AddressLineTwo
\immediate\write16{Enter City, ST ZIP}
      \read-1to\CityStateZipName
\setbox0=\hbox{\PersonName}%
      \ifdim\wd0=0pt\else\line{\box0\hfill}\fi
\setbox0=\hbox{\CompanyName}%
      \ifdim\wd0=0pt\else\line{\box0\hfill}\fi
\setbox0=\hbox{\AddressLineOne}%
      \ifdim\wd0=0pt\else\line{\box0\hfill}\fi
\setbox0=\hbox{\AddressLineTwo}%
      \ifdim\wd0=0pt\else\line{\box0\hfill}\fi
\hbox{\CityStateZipName}
\vfill
\eject
\bye
```

A style for dropped capitals

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Peter Flynn dedicates a subsection of *Typographer's Inn* (TTN 1,4) to the problem of dropped capitals. This is my answer to some of his questions. Basically, I don't start with the capital, but I let the capital's size depend on the chosen design. I wrote a dropped caps macro for use with L^AT_EX, and took the following design decisions.

- First, let the writer choose her favourite design, within certain limitations though, and let the macro do the dirty work: adjusting the cap to the optimal size.
- Let the writer decide how many lines she wants to dropindent. Let her also decide in which font the cap should appear, whether to start the cap *at* the left margin, or somewhat to the left (into the margin) or to the right (into the text). Let her decide what she puts into dropped caps: a single character, or even one or more whole words, or without caps at all.
- The limitations: Let the cap's baseline be aligned with the baseline of the lowest of the indenting lines. Let the cap's top line be aligned with the top line of the first of the indenting lines. Don't let the writer mess with this!

Usage My `dropcaps.sty` is a L^AT_EX style file, that defines a macro command `\bigdrop` that enables you to drop capitals at the beginning of a paragraph. The layout can be controlled in various ways, with four parameters (not optional). For instance, the first paragraph started with

```
\bigdrop{-2pt}{2}{cmr10}{P}eter ...
```

The required parameters are:

1. a *length*, that denotes the distance from the left margin (to the left or to the right) at which the dropped capital starts, in this case 2pt into the left margin: -2pt.
2. an integer value, that denotes the number of lines to be indented, in this case 2 lines.
3. the font to be used for the dropped capital, in this case `cmr10`.
4. the character or text to be dropped, in this case a single P.

The messy details When the macro `\bigdrop` is called (with four parameters), this is what happens. First, a capital ‘T’ is typeset in the current text font and put in a box (`box1`). The desired font height (`\wantedheight`) is then computed from $(n - 1) \times \text{\baselineskip} + \text{\ht1}$, where n is the number of lines to indent. Then the procedure differs, depending on whether fonts at arbitrary sizes are available.

with arbitrary sizes: In this case the text to be capitalized, typeset in the chosen font (at scale 1000), is put in a box (`box0`), where `\actualheight = \ht0`. Now, the scaling factor for this font can be computed from dividing `\wantedheight` by `\actualheight` and multiplying this by 1000. Because divisions are integer, the heights are first put in count registers, and then, to prevent from rounding errors and overflow, `\wantedheight × 10` is divided by `\actualheight/100`. The outcome of this is the scale at which the chosen font is typeset.

without arbitrary sizes: Without the freedom to use arbitrary sizes, things are less elegant, for only the standard magsteps — half, and zero to five — are available for scaling fonts. The text to be capitalized in the chosen font, is first typeset at `\magstep0` and put in a box (`box0`), with height `\ht0`.

If `\wantedheight` is bigger than `\ht0`, the text is typeset at `\magstephalf`, and put in `box0` again. If `\wantedheight` is still bigger than `\ht0`, again the `\magstep` is increased one step, et cetera. This process is repeated until `\wantedheight` is smaller than `\ht0`.

The result of the computation can be observed on the screen and in the `.log` file. Each time a capital is dropped, two lines like

```
*** Needed height: 18.83331pt
*** cmr10 scaled 2488 ==> height: 17.0013pt (error: 1.83202pt).
```

appear. This example is from processing this document with $n = 2$ and font `cmr10`, without using fonts at arbitrary sizes.

At the end of the computation `box0` contains the text, typeset in the desired font and scaled such that `\ht0` equals the height of the indenting lines. Then, `\hangindent` and `\hangafter` are set according to `box0` and the parameter values: `\hangindent = \wd0 + #1`, and `\hangafter = -#2`. Precautions are taken — an extra line is indented — for the case that `\dp0` is not equal to zero. Finally, in a L^AT_EX picture environment, the text is placed where we want it.

Requirements In order to use this style file, a big version of L^AT_EX is needed, because almost always fonts have to be generated, and already from 4 indenting lines, they tend to become very large. I tested this with emT_EX’s T_EX386 (with emx) on a 486DX33 PC, and with emT_EX’s bT_EX186 on an AT286 PC.

Also desirable is a version of DVIPS by Tomas Rokicki with MakeTeXPK running, so the generation of fonts will be done automatically. For me the recently uploaded DVIPS 5.518 works great on both machines.

Alternatives Only one style file that does something similar is listed in the T_EX Index (v1.06) by David M. Jones, namely `drop.sty` by David G. Cantor. The latest version is dated 17/02/1988. This style file also defines a macro to drop capitals, but has no possibilities to accept controlling parameters, except for the choice of font. You are not able to choose the desired height by supplying the number of lines to be indented.

The dropped capital has a fixed size, namely `\magstep5`, and always two lines are indented. This font height is somewhat smaller than the height of two indenting lines, so the vertical placement of the dropped capital's baseline lies not at the same height as the vertical placement of the baseline of the second indenting line (next to it). The advantage of this is that everyone has this font.

```

\def\fileversion{0.30}
\def\filedate{13 Sep 1993} \def\docdate{\filedate}
\typeout{\space\space Style option: 'dropcaps' v\fileversion
\space\space <\filedate> \space\space (FJL)}%
\def\yes{y }\def\no{n }\newif\ifarbsizes
\message{*** Are arbitrary font sizes available [y/n] ? }
\read-1 to \answer
\ifx\answer\yes\arbsizestrue\else\arbsizesfalse\fi
\newcount\bigscale
\ifarbsizes % \typeout{*** Good choice.}%
\newcount\wantedcount\newcount\actualcount
\newdimen\actualheight
\def\findsize#1#2{%
\bigscale=1000 \font\BIG=#1 scaled \bigscale
\setbox0=\hbox{\BIG #2/}%
\actualheight=\ht0
\typeout{*** Needed height: \the\wantedheight,
\space Unscaled height: \the\actualheight}%
\wantedcount=\wantedheight \actualcount=\actualheight
\advance\actualcount by50 \divide\actualcount by100
\multiply\wantedcount by10
\divide\wantedcount by\actualcount
% ie \wantedcount:=1000*\wantedcount / \actualcount
\bigscale=\wantedcount \font\BIG=#1 scaled \bigscale
\setbox0=\hbox{\BIG #2/}}%
\else % \typeout{*** OK, prepare for bad output...}%
\def\nextmagstep#1#2#3{\bigscale=#3\font\BIG=#1 scaled\bigscale

```

```

\setbox0=\hbox{\BIG #2\}/}%
\def\findsize#1#2{%
\typeout{*** Needed height: \the\wantedheight}%
\nextmagstep{#1}{#2}{\magstep0}%
\ifdim\ht0<\wantedheight\nextmagstep{#1}{#2}{\magstephalf}%
\ifdim\ht0<\wantedheight\nextmagstep{#1}{#2}{\magstep1}%
\ifdim\ht0<\wantedheight\nextmagstep{#1}{#2}{\magstep2}%
\ifdim\ht0<\wantedheight\nextmagstep{#1}{#2}{\magstep3}%
\ifdim\ht0<\wantedheight\nextmagstep{#1}{#2}{\magstep4}%
\ifdim\ht0<\wantedheight\nextmagstep{#1}{#2}{\magstep5}%
\fi\fi\fi\fi\fi\fi}
\fi
\newcount\down \newdimen\saveunitlength \newdimen\wantedheight
\def\bigdrop#1#2#3#4{%
\saveunitlength=\unitlength \unitlength=\baselineskip
\setbox1=\hbox{\the\font I}%
\wantedheight=#2\baselineskip
\advance\wantedheight by -\baselineskip
\advance\wantedheight by \ht1
\findsize{#3}{#4}%
\advance\wantedheight by -\ht0%           only for typeout...
\typeout{*** #3 scaled \the\bigscale \space ==> height:
\the\ht0 \space (error: \the\wantedheight).}%
\hangindent=\wd0 \advance\hangindent by #1
\hangafter=-#2
\ifdim\dp0>0.25\baselineskip%           Opt ?
\typeout{*** extra line(s) indented:
non-zero depth: \the\dp0}%
\loop\ifdim\dp0>\baselineskip
\advance\baselineskip by \baselineskip
\advance\hangafter by -1
\repeat
\advance\hangafter by -1
\baselineskip=\unitlength
\fi
\noindent
\down=-#2 \advance\down by 1
\begin{picture}(0,0)%
\put(0,\down){\makebox(0,0)[br]{\box0}}%
\end{picture}%
\unitlength=\saveunitlength}

```

Reports on Meetings

UK T_EX Users' Group — October 1993

R. Bailey, Secretary

The Annual General Meeting of the UK T_EX Users' Group was held on 20 October 1993 at Aston University. C. A. Rowley was elected Chairman. The Secretary is R. A. Bailey, the Treasurer is P. Abbott, the Meetings Secretary is M. Clark, and S. P. Q. Rahtz is editor of *Baskerville*. The remaining members of the committee are R. Fairbairns, J. Fine, C. Hewlett, A. Jeffrey, and A. Nimmo.

Anyone interested in finding out about the activities of the group or becoming a member should either write to J. Fine, 203 Coldhams Lane, Cambridge CB1 3HY or send an email message to uktug-enquiries@uk.ac.tex.

NTG — November 1993

Kees van der Laan, Chairman
cgl@risc1.rug.nl

Some 70 (of roughly 230) members of NTG gathered at Océ at Den Bosch for “T_EX Working Environments”, a very pleasant meeting. An excellent host (thank you Océ, also for the lunch offered!): professionally equipped, thanks to which we could all enjoy the presentation about 4AllT_EX, subtitled “Put a Tiger in your T_EX”, by Erik Frambach and Wietse Dol. After that Michel Lavaud presented his views, and realization of it: AsT_EX. The former is based on freeware and shareware; the latter on the commercial product, Framework.

In the morning we had our formal business meeting; of special interest was a unanimous granting of another Fl 1,000,- to the L^AT_EX3 project. The irrepressible secretary as “spider” in the Web — Wily Editorial Board — announced the MAPS award for the smartest contribution: Phons Bloemen was invited to step forward to receive a big (topological) “box” full of “glues”.

Another nice surprise was that Andrea de Leeuw van Weenen showed us her lifework about Icelandic language issues — she has been working on it for 20 years — and which could only be out in print with that superb quality thanks to T_EX and METAFONT.

An old question turned up during the other business: How to persuade managers and employers to accept that T_EX is a worthwhile and a cost-effective tool to be used? Many a suggestion came across the footlights, but Gerard van Nes' was the most surprising: don't! Just let colleagues hang on and help them as well as you can and it will all work out automagically like (L^A)T_EX itself!

As usual we ended the day with an informal dinner; and to fill the time till our next meeting, we have the well-filled pages of MAPS 93.2 to remind us of our meeting.

TUG'94 — Santa Barbara, California

31 July – 4 August

In 1994 the sunny California coastal community of Santa Barbara and the University of California will host the 15th Annual T_EX Users Group Meeting. UCSB is a research-oriented university located in the Goleta Valley, adjacent to the Santa Barbara Airport and approximately 10 miles from downtown. Participants will be given details of local events, museum and gallery locations, sightseeing suggestions, restaurant guide, and a directory of recreation facilities (sailing, the best surfing and swimming beaches, fishing, hiking, tennis, etc).

This year's theme is **Innovation** and in addition to the usual spectrum of topics we are especially interested in papers in the following areas: colour and design; floating objects; future T_EXes; newspapers. Among the speakers already lined up for this year's conference: Tom Rokicki will talk about colour support, Leslie Lamport will reflect on L^AT_EX, and Joachim Schrod will discuss the prerequisites for the creation of interactive T_EX. Poster displays and panel sessions are also encouraged. Those interested in making a presentation should contact the TUG office (tug94@tug.org), Sebastian Rahtz (spqr@ftp.aston.ac.uk), or Malcolm Clark (cudax@warwick.ac.uk).

Once again there will be a selection of T_EX Users Group courses and workshops organised in conjunction with the meeting which will take place during the week preceding and the week following the conference itself. An excellent opportunity to benefit from the expertise of those gathered for the annual meeting.

In keeping with the spirit of the theme there will be a number of *innovative* social events to attend. In addition to the usual reception and banquet we have included a night at the Red Dog Saloon, a nightclub known throught the area for its uproarious foot-stomping country music and dance; a wonderful bar-be-que on the beach and, of course, the annual night of bowling. These, along with other events, should make this year's conference the most interesting to date.

TUG 15th Anniversary Meeting

Where?	Santa Barbara, California (north of Los Angeles)
When?	July 31 to August 4 (with courses before/after these dates)
Who?	Everyone interested in T _E X, L ^A T _E X, and METAFONT!

TUG Board Activities

1994 Knuth Scholarship

Nico Poppelier
Liaison to the 1994 Committee

At the 1993 TUG Annual Meeting the Board of Directors decided that, starting with the 1994 Scholarship, the Donald E. Knuth Scholarship will be open to non-TUG members as well as to TUG members. The same rules for the Scholarship competition will apply, and the current committee will serve again for the 1994 Scholarship.

Announcement of the next competition One Knuth Scholarship will be available for 1994. The competition will be open to all T_EX users holding support positions that are secretarial, clerical or editorial in nature. It is therefore not intended for those with a substantial training in technical, scientific or mathematical subjects and, in particular, it is not open to anyone holding, or studying for, a degree with a major or concentration in these areas.

The award will consist of an expense-paid trip to the 1994 TUG Annual Meeting at Santa Barbara, USA, and to the Scholar's choice from the short courses offered in conjunction with that meeting, and TUG membership for 1994, if the Scholar is not a TUG member, or for 1995, if the Scholar is a TUG member. A cap of \$2,000 has been set for the award; however, this does not include the meeting or course registration fee, which will be waived.

To enter the competition, applicants should submit to the Scholarship Committee, by the deadline specified below, the input file and final T_EX output of a project that displays originality, knowledge of T_EX, and good T_EXnique.

Entry details The project as submitted should be compact in size. If it involves a large document or a large number of documents then only a representative part should be submitted, together with a description of the whole project. For example, from a book just one or two chapters would be appropriate.

The project may make use of a macro package, either a public one such as L^AT_EX or one that has been developed locally; such a macro package should be identified clearly. Such features as sophisticated use of math mode, of macros that require more than "filling in the blanks", or creation and use of new macros will be taken as illustrations of the applicant's knowledge. All macros created by the candidate should be well documented with clear descriptions of how they should be used and an indication of how they work internally.

All associated style files, macro package files, etc., should be supplied, or a clear indication given of any widely available ones used (including version numbers, dates, etc.); clear information should be provided concerning the version of T_EX used and about any other software (e.g., particular printer drivers) required. Any nonstandard fonts should be identified and provided in the form of `.tfm` and `.pk` files suitable for use on a 300dpi laser printer.

While the quality of the typographic design will not be an important criterion of the judges, candidates are advised to ensure that their printed output adheres to

sound typographic standards; the reasons for any unusual typographic features should be clearly explained.

All files and documents comprising the project must be submitted on paper; the input files should be provided in electronic form as well. Suitable electronic media are IBM PC-compatible or Macintosh diskettes, or a file sent by electronic mail.

A brochure with additional information is available from the TUG office. To obtain a copy, or to request instructions on e-mail submission, write to the address at the end of this announcement, or send a message by e-mail to `tug@tug.org` with the subject “Knuth Scholarship Request”.

Along with the project, each applicant should submit a letter stating the following:

1. affirmation that he/she will be available to attend the 1994 TUG Annual Meeting;
2. affirmation of willingness to participate on the committee to select the next Scholar.

Each applicant should also submit a curriculum vitae summarizing relevant personal information, including:

1. statement of job title, with a brief description of duties and responsibilities;
2. description of general post-secondary school education, T_EX education, identifying courses attended, manuals studied, personal instruction from experienced T_EX users, etc.;
3. description of T_EX resources and support used by the candidate in the preparation of the project.

Neither the project nor the curriculum vitae should contain the applicant’s name or identify the applicant. These materials will be reviewed by the committee without knowledge of applicants’ identities. If, despite these precautions, a candidate is identifiable to any judge, then that judge will be required to make this fact known to the others and to the TUG board members responsible for the conduct of the judging.

The covering letter, curriculum vitae, and all macro documentation that is part of the project input should be in English. (English is not required for the output of the project.) However, if English is not the applicant’s native language, that will not influence the decision of the committee. Selection of the Scholarship recipient will be based on the project submitted.

Schedule The following schedule will apply (all dates are in 1994):

March 7	Deadline for receipt of submissions
March 21–May 16	Judging period
May 23	Notification of winner
31 July–4 August	1994 Annual Meeting, Santa Barbara, USA

The 1994 Scholarship Committee consists of Chris Rowley, Open University, UK (Chair); David Salomon, California State University, Northridge, USA; and Jenny Smith, John Wiley and Sons, Ltd. Chichester, UK.

Where to write All applications should be submitted to the Committee in care of the TUG office (see Cover 2), marked “Attn: Knuth Scholarship Competition”.

TEX Users Group 1994 Course Schedule

<i>Beginning/Intermediate TEX*</i>	<i>Intensive Course in L^ATEX*</i>
Santa Barbara Feb. 7–11 Oct. 17–21	Santa Barbara Jan. 31–Feb. 4 Oct. 24–28

<i>Modifying L^ATEX Style Files*</i>	<i>Adv'd TEX and Macro Writing*</i>
Santa Barbara Feb. 28–Mar. 4	Santa Barbara Feb. 14–18

And don't forget!

There are also courses to be held in conjunction with
the Annual Meeting.
Stay tuned for further announcements.

*Lab classes — computers will be provided for all students

-
- TUG courses are small, with 8–15 students in most classes.
 - Dates and locations subject to change. Direct course inquiries to John Berlin at the TUG Office. Anyone interested in courses dealing with TEX and SGML should contact John as well (john@tug.org).
 - TUG office: phone 805-963-1338 FAX 805-963-8358 tug@tug.org
-

On-Site Courses in TEX and L^ATEX from TEX Users Group

- Courses in TEX, L^ATEX, SGML and TEX, PostScript, or TEX for Publishers tailored to the needs of your group
- Courses at every level from beginning to advanced
- Five full days of instruction at your site
- One-week course fee includes all instructor fees and expenses plus textbooks and other materials for up to 15 students

Upcoming Events

16–18 Feb.	DANTE’94: 10th general meeting, Münster, Germany.	Wolfgang Kaspar kaspar@dmswwu1a. uni-muenster.de
1 March	GUST: “BachoT _E X’94.” Deadline for submissions [see below for dates].	Hanna Kołodziejska, hko1o@plearn.edu.pl
21–22 March	UK T_EX Users Group: “L ^A T _E X _{2ϵ} : the conference.” Warwick University, England.	Malcolm Clark m.clark@warwick.ac.uk
11–15 April	Joint Conference: RIDT’94, EP94, TEP’94, PODP94. Darmstadt, Germany.	ep94@gmd.de, ridt94@irisa.fr
30 April– 2 May	GUST: “BachoT _E X’94” 2nd General Meeting of the Polish T _E X Users Group, Bachotek (Brodnica Lake District), Poland.	Hanna Kołodziejska, International Computers Ltd. Poland, ul. Leszno 21, 01-199 Warszawa, POLAND hko1o@plearn.edu.pl
June 1994	NTG 13th Meeting: “(L ^A)T _E X, METAFONT, and tools education.” Groningen, at RUG.	Gerard van Nes vannes@ecn.nl
6–8 July	Université de Rouen: National Colloquium on Writing and Documentation, Rouen, France.	Jacques Labiche labiche@la3i.univ-rouen.fr
31 July– 4 Aug.	TUG ’94: 15th Annual Meeting, Santa Barbara, California.	Debbie Ceder tug94@tug.org

Note: Also consult the “Calendar” in the previous issue of *TUGboat* for more dates and details.

T_EX and TUG NEWS

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Eight Great Reasons to Join the T_EX Users Group

1. **Publications:** All members receive 4 copies of *TUGboat*, The Communications of the T_EX Users Group; 4 copies of *T_EX and TUG NEWS* (TTN); and a membership directory. One of the four *TUGboat* issues contains the proceedings of the annual meeting, so if you can't make the meeting, you can still keep up to date with the latest developments. As well, TUG publishes special single-topic items in its *T_EXniques* series; some are guides and summaries of T_EX and L^AT_EX; others offer descriptions of major software packages (e.g., P_ICT_EX, EDMAC).
2. **Books and Software:** A “one-stop shop,” TUG carries most T_EX macro packages as well as T_EX publications and products. The Radel collection of public domain T_EX software for microcomputers is now available through TUG, too. Members benefit from a 10% discount on all items available from TUG.
3. **Membership Networks:** TUG maintains and distributes a complete membership directory annually. Members are listed alphabetically, geographically and by institution. These lists facilitate easy member-to-member communication within TUG's worldwide network.
4. **Information Referrals:** TUG can connect you with site coordinators — specialists in implementations of T_EX on various computer architectures — as well as other resource volunteers. These experts are available to answer your questions about T_EX, T_EX-related software and other technical matters.
5. **Annual Meetings:** TUG's Annual Meetings bring T_EX users together to learn the latest in T_EX applications and innovations through seminars, talks and informal gatherings. They offer an opportunity to connect with other T_EX users at every level. Each conference is informative, but always informal and friendly — the perfect forum for valuable interaction and exchange of ideas on T_EX.
6. **T_EX Worldwide:** When you belong to TUG you connect with other T_EX user associations around the world. Information about their activities is published regularly in TTN; reciprocal membership arrangements are available with some of the European groups.
7. **T_EX Training:** Each year TUG offers seminars and classes for beginner, intermediate and advanced T_EX users. TUG will custom design and conduct on-site courses to meet your company's specific needs.
8. **Discounts:**
 - ▷ Discounted Annual Meeting fees
 - ▷ Student rates for membership (**50% off regular individual rates!**)
 - ▷ Discounts on the purchase of selected TUG publications
 - ▷ Discounts for all members on TUG-sponsored courses in T_EX and T_EX-related subjects

See inside front cover (“Cover 2”) for address details.