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TEX and TUG NEWS

for and by the TEX community

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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.

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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@math.ams.org** with the subject line **NEWSLETTER**.

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Editorial

News! News! And still more News! Maybe it's a sign of the excitement which the Annual Meeting generates, but there has been an avalanche of news releases and announcements crossing my screen these days. Things I've had no room for include:

- the *Textures* 1.6 release
- Arbortext and Solaris 2.x for T_EX users
- Bernard Gaulle has announced a new release of `french.sty` v.3.20
- Timothy van Zandt has a new release of PSTricks out, available also from TUG
- there's a new thing called ACROBAT — if we're lucky, we'll be seeing something about it at Aston
- and here's a last-minute arrival: a July release of something called *T_EXhelp: The On-Line T_EX Handbook*, from Arvind Borde

Question: should we be mentioning new releases in TTN? What do you think? People who cruise the newsgroups read about them all the time: it seems a reasonable thing to bring some of those announcements here to TTN. What sorts of things do you want to know about?

We have a list of the conference presentations as they are currently known, and we have a list of the courses and instructors for the week before, and the week after the conference itself. Lots is happening, that's for sure! And remember to bring some discs if you want to copy some of the updates/upgrades to software from the fabulous Aston Archive.

See you at Aston. And for those who won't be able to make it, the *Proceedings* issue of *TUGboat* will bring the conference to *you* in a few months' time.

Christina Thiele
Editor, T_EX and TUG NEWS

Oct. issue	Sept. 15th
Jan. issue (1994)	Dec. 1st
Apr. issue	March 15th

Typographer's Inn

Well-versed

The late Brian O’Nolan (Flann O’Brien), writing his satirical column *Cruiskeen Lawn* (as Myles na gCopaleen) in the *Irish Times* in the 1930s commented:

Having considered the matter in—of course—all its aspects, I have decided that there is no excuse for poetry. Poetry gives no adequate return in money, *is expensive to print by reason of the waste of space occasioned by its form*, and nearly always promulgates illusory concepts of life. [My italics]

Several times I have been asked to help with the formatting of poetry. There are several ‘poem.sty’ files around, but none of them seem to tackle the fundamental problem of coping with overlong lines. The poet, untrammelled by having to consider such mundane factors as typography, quite rightly expects the printer to make as decent a shot as possible at reproducing the poem, but all too often the ‘printer’ is nowadays an inexperienced DTP operator, with scant knowledge of typographic practice.

It is particularly evident when setting in short measures, but the only satisfactory solution I have been able to come up with is the following kind of layout (this is a verse of a hymn which had to be set in 10/11 pt to 12½ pc):

6 And in the garden secretly,
 And on the cross on high,
 Should teach his brethren, and
 To suffer and to die. [inspire

What I haven’t been able to find is the way to get T_EX to do this by itself. The usual pint of Guinness at Aston for the first solution. I should mention that when there is insufficient space at the end of the next line, and if there *is* sufficient space at the end of the *preceding* line, then the excess word should be brought up to the preceding line! The alternate indenting is handled by the code:

```
\newcount\plines
\everypar={\global\advance\plines by1
           \ifodd\plines\else\quad\fi}
\obeylines%
```

so this extra space also needs to be taken into account.

Curiously, as I was in the middle of writing this, a question about verse formatting was posted to `comp.text.tex`, so it would be nice to come up with some answers.

When is an em not an em?

Talking of `comp.text.tex`, there has been a debate recently about the size of an em. A user wanted to know how big an em was, and if that size was related to the current point size of type. Once the confusion was settled over the separate meaning of a pica em (always 12pt, regardless of what type you are setting in: this is T_EX's 'pc' unit of measurement), it became obvious that there is substantial disagreement, or at least misunderstanding, over the term 'em'.¹

Historically, an em was the width of a capital 'M' (approximately, anyway). As more and more type designs deviated from this, it became necessary to fix the value at some standard: normally 1 em is the same as the current pointsize: that is, if you are setting in 8 pt type, then the instruction 'leave 1 em space' means 'leave 8 pt space'. Anyone who has ever set metal type knows this from the fact that an em quad is a square-section slug of typemetal of side x pt, where x is the typesize in points.

However, METAFONT does not obey this convention: if you process the following code, you will find that the width of what METAFONT claims is 1 em in `cmbx10` is actually 11.49994pt.

```
\newbox\embox \newdimen\emwidth
\setbox\embox=\hbox{\tenbf\hbox to1em{\hfill}}
\emwidth=\wd\embox
\showthe\emwidth
```

I'm not sure why it does this: I have never found a use for it, and have always had to be explicit when writing macros to make sure that if the typographer's spec says 'Chapter Number in 8/9 pt Times Bold, run in 2 em to Chapter Title in 8/9 pt Times Roman' that the result leave exactly 16 pt between CN and CT, otherwise the client will be upset.

Can anyone shed some more light on this? Perhaps it's some devious and hidden difference between typographical practice in North America and in English-speaking parts of Europe.

Fonts

I've just managed to get a real PostScript laser printer near me: up until now I've been making do with Ghostscript for drafts and trusting to a well-tried local typesetter for repro pulls and camera-ready. I still think the default interletter spacing on the Adobe fonts is too tight. I don't have a copy of ATF Garamond, but if anyone out there can lay their hands on a specimen book, and measure an alphabet, I'd be glad of the opportunity to compare it with the one sold by Adobe.

¹And there we have a classical example of where to put the punctuation. Presumably the MLA would prefer me to finish the sentence with 'em.'

New Publications

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Helmut Kopka and Patrick W. Daly. *A Guide to L^AT_EX: Document Preparation for Beginners and Advanced Users.*

Addison-Wesley (UK) Ltd., 1993. 448pp. US\$34.50. ISBN 0-201-56889-6.

- This book is based on two well-known German books by Helmut Kopka: *L^AT_EX — Eine Einführung*, and *L^AT_EX — Erweiterungsmöglichkeiten*.

Francesc Rosselló Llompарт. *L'ABC del T_EX.*

Palma de Mallorca: UIB-DMI Departament de Ciències Matemàtiques i Informàtica, Universitat de les Illes Balears, 1991.

Reinhard Wonneberger. *L^AT_EX. 3., durchgesehene und erweiterte Auflage.*

(Addison-Wesley Kompaktführer) Bonn etc.: Addison-Wesley, 1993.

XVI, 166pp. DM 29,80. ISBN 3-89319-589-0.

- This is the third (expanded) edition of a concise German L^AT_EX reference (previous editions 1987 and 1988). The main addition is a section on `german.sty`, which is widely used in German-speaking countries.

Electronic publications

Hubert Partl, Elis. Schlegl and Irene Hyna. *Una Descripción de L^AT_EX.*

- Spanish translation by Tomas Bautista of well-known German introduction to L^AT_EX, *L^AT_EX-Kurzbeschreibung*. Includes material on the `spanish` style option. Available in Spain from `ftp.eunet.es` (also known as `goaya.uu.es`) in the directory `info/unix/text/TeX/spanish/tutorial`, as well as from the main T_EX archives.

Latest issues of other T_EX newsletters

Les Cahiers GUTenberg: No. 14: *EuroT_EX'92: Proceedings of the 7th European T_EX Conference*. Prague, Sept. 14–18, 1992. Pp. vi + 330.

No. 15, avril 1993, 61pp. ISSN 1140-9304.

GUST: Zyszyt 1 (1993). [March issue 35 + 7; A4 format.]

First issue of the newsletter GUST from the Polish user group Grupa Użytkowników Systemu T_EX. Editors are: Włodek Bzyl and Tomasz Przechlewski. Address is: Instytut Matematyki UG, Wita Stwosza 56, 80-952 Gdańsk. E-mail: `matwb@halina.univ.gda.pl`.

MAPs: issue 93.1, 1993, 233pp. [Dutch-speaking user group, NTG publication].

Feature Article

International quotations

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Introduction

At the conference in Portland last year, Christina Thiele asked me if I was willing to write an article for TTN about quotation marks. She said that she suspected that there would be many people out there who would want to know how to produce quotation marks in a little piece of, say, French text that they include in their document that is otherwise written in English. All this is of course covered in the Babel language-specific style files, but for those who don't want to use Babel but do need the occasional quotation mark I wrote this article.

Let me start with a disclaimer: I am not familiar with all the typographic conventions that are in use in the various countries all over the world. Also I can only give you macros for those languages for which a language-specific Babel file exists. So, there may be more conventions. If you know of them, please inform me, so that I can enlarge my collection.

Yet another disclaimer: If you have access to fonts with the DC/EC (or Cork) encoding, you do not need most of the hackery in this article. Those fonts include the necessary characters, so they need not be constructed.

The first part of this article¹ deals with the macros needed to typeset the quotation marks needed for various languages. First, I'll introduce some internal hackery, then the macros that really produce quotation marks. I also give some shortcuts to make the macros easy to use. Finally, I will give some examples of the use of the macros. In the examples, I will show the source text as well as the typeset result.

Some help macros

Because the macros in this part of the code are not intended for use in a document, we'd like to 'hide' them from the user. Usually this is done by changing the category code of a character with category code 'other' to a letter. More often than not the '@' is chosen for this purpose. Sometimes the underscore is used for this purpose as well. Here I too will use the '_'. Of course the category code needs to be reset later so we store the current value in `\uscatcode`:

```
\chardef\uscatcode=\catcode'\_
\catcode'\_ =11\relax
```

¹When the source of this article is run through L^AT_EX it produces a file called `quoting.tex` which contains all the code that is described and used in the article.

In some languages we need to lower quotation marks to the baseline. For this purpose we use the macro `\set_low_box`. It has one argument and uses `\box0` to give us its result. This macro comes from `german.tex`.

It first typesets a comma in box register 2 and its argument in box register 1. Then it computes the distance that the argument has to be lowered to reach the baseline. Finally, it lowers the contents of box register 0 — using box register 0 again for the result — and adjusts the values for the height and depth of the box:

```
\def\set_low_box#1{\setbox2\hbox{,}\setbox0\hbox{#1}%
  \dimen0\ht0 \advance\dimen0 -\ht2%
  \setbox0\hbox{\lower\dimen0 \box0}\ht0\ht2 \dp0\dp2}
```

Using macros for quotation marks sometimes disturbs the spacefactor, so we also need a macro to preserve it. This macro also stems from `german.tex`. It first checks if it is executed in horizontal mode; if that is the case, the current spacefactor is stored in the macro `_SF`. Outside horizontal mode the macro `_SF` is empty. Then `\save_sf_q` typesets its argument and resets the spacefactor:

```
\def\save_sf_q#1{\ifhmode
  \edef\_SF{\spacefactor\the\spacefactor}\else
  \let\_SF\empty \fi \leavevmode #1\_SF}}
```

Producing the quotation marks

In languages such as Dutch, German and Czech, the opening quotes are traditionally typeset at the baseline:

```
\def\loq{\protect\_loq}
\def\_loq{\save_sf_q{\set_low_box{'}}\box0\kern-.04em}}
```

In German, the closing quotes are also different from what is provided by T_EX. They use something that looks like the English opening quotes as closing quotes. Obviously, if one didn't do anything about it, the spacing would be wrong. Therefore we need yet another macro, `\icq`:

```
\def\icq{\protect\_icq}
\def\_icq{\save_sf_q{\kern-.07em'\kern.07em}}
```

In French typography, a very different kind of quote mark is used, the so-called 'guillemets'. To realise these guillemets, various macros have been floating around the net. According to the `french.sty` package by Bernard Gaulle, one of the oldest definitions is:

```
\def\oog{\protect\_oog}
\def\_oog{\leavevmode\ifdim\lastskip>0pt\unskip
  \penalty-9\hskip0.35em minus 0.35em\fi}
```



```

        \raise .27ex\hbox{\scriptscriptstyle\ll$}%
        $,\$ \nobreak\ignorespaces}
\def\ocg{\protect\_ocg}
\def\_ocg{\leavevmode\ifdim\lastskip>0pt\unskip
\penalty10000\fi
\nobreak$,\$ \leavevmode
\raise .27ex\hbox{\scriptscriptstyle\gg$}}

```

But this does not *really* give the result that the French would like. Therefore, if you have access to the L^AT_EX symbol fonts it is better to use the following definition for the guillemets:

```

\chardef\lg='050
\chardef\rg='051
\def\og{\protect\_og}
\def\_og{\hbox{\ly\lg\kern-0.2em\lg\kern+0.2em}}
\def\cg{\protect\_cg}
\def\_cg{\hbox{\ly\kern+0.2em\rg\kern-0.2em\rg}}

```

In the code above the control sequence `\ly` is used. It is an internal macro from the old font selection scheme in L^AT_EX. When you use the NFSS you will have to define it this way:

```

\ifx\undefined\selectfont
\else
\def\ly{\fontfamily{lasy}\fontseries{m}
\fontshape{n}\selectfont}
\fi

```

Easy usage

In the previous section a couple of macros have been defined to make it possible to use various quotes. But it would be nice if one didn't have to do so much typing each time they were used. To provide easy access, it is common use in language-specific files to introduce active characters. For the macros presented here, we could introduce three active characters, the " , < and the >:

```

\def\dq{"}\catcode'\="=\active
\def\lt{<}\catcode'\<=\active
\def\gt{>}\catcode'\>=\active

```

As you may have noticed, I saved a copy of the non-active version of each character in a control sequence. These are needed later on, when the active character has inspected its argument and decides that it needs to insert the non-active version of itself.

We use the active " to access the low opening quotes and the German closing quotes; the other two are used to produce the guillemets. Here is the definition of the active characters:

```
\def"#1{\ifx#1'\loq{ }\else
\ifx#1'\icq{ }\else\dq#1
\fi\fi}
\def<#1{\ifx#1<\ifmmode\lt\lt\else\og{ }\fi\else\lt#1\fi}
\def>#1{\ifx#1>\ifmmode\gt\gt\else\cg{ }\fi\else\gt#1\fi}
```

But, be careful when introducing new active characters. You have to make sure that they get deactivated at the right moment. Therefore, we need to add them to macros such as `\dospecials` and — in case you use L^AT_EX — `\@sanitize`. A safe way of doing this was found by Bernd Raichle. It involves using an extra macro `\add_special`:

```
\chardef\atcatcode=\catcode'\@
\catcode'\@=11\relax
\def\add_special#1{\begingroup
\def\do{\noexpand\do\noexpand}
\def\@makeother{\noexpand\@makeother\noexpand}
\edef\x{\endgroup
\def\noexpand\dospecials{\dospecials\do#1}
\expandafter\ifx\csname @sanitize\endcsname\relax \else
\def\noexpand@\sanitize{\@sanitize\@makeother#1}
\fi}
\x}
\catcode'\@=\atcatcode\relax
```

Once that macro is defined we use it to tell T_EX to treat our active characters with caution:

```
\add_special\"
\add_special\<
\add_special\>
```

Wrapping up

These macros were defined while the category code of the ‘_’ was changed. It must not be forgotten to undo that change:

```
\catcode'\_=\uscatcode\relax
```

Examples

A quotation in Dutch might look like this:

```
Hij zei: "'Ga je mee?'. Hij zei: „Ga je mee?“.
```

But in French (using the definition that uses the L^AT_EX symbol font) it would be:

Il disait: << Tu va? >>. Il disait: « Tu va? ».

Whereas in Italian it might look like:

Lui dice: >>Andiamo?<<. Lui dice: »Andiamo?«.

To show the difference between the two definitions given for the guillemets, this is what the old version looks like:

Il disait: \oog\ Tu va? \ocg. Il disait: << Tu va? >>.

“Hey — it works!”

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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.

Paul Hafner, in the Department of Mathematics and Statistics here at Auckland, pointed out a problem with Hans Guesgen’s macros in the last issue for interspersing headings in bibliographies. Hans was working from an older version of L^AT_EX, and an update to L^AT_EX in January 1992 broke Hans’ macro; the fix is to add the definition

```
\def\@bibitem#1{\item@if@filesw \immediate\write\@auxout
  {\string\bibcite{#1}{}}\fi\ignorespaces}
```

to `bibheadings.sty`.

The first piece in this issue is a brief note from Klaus Lagally about Peter Schmitt’s margin mark macros in TTN 1,3. Next we have an item by Claudio Beccari on fine adjustments to the spacing of alignments, expanding on his own comment in TTN 2,1. We conclude with a short piece from Charles Wells on giving arbitrary labels to equations.

More on margin marks

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Here are a few comments on “Marking lines in the margin”, TTN 1,3 p. 12 and TTN 1,4 p. 10, by Peter Schmitt.

The macros as given will inhibit hyphenation. This can be corrected by redefining:

```
\long\def\readword#1 {#1\strut\putmark\space\next\relax}
```

If the margin mark is a `\vrule` of sufficient height and depth the `\strut` is no longer necessary, not even at the beginning of a paragraph, as T_EX will now be in horizontal mode anyway.

How to redefine `\putmark` to get the mark into the right margin is left as an exercise to the interested reader.

Correct spacing for tables and arrays

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Every L^AT_EX user knows how to insert vertical spacing in tables, arrays and equation arrays by means of the optional argument of the `\` command. I suppose that most users do not like to explore the inner depths of L^AT_EX, so that it is possible that some users do not realize that the `\` command behaves quite differently in equation arrays compared with tables and arrays.

In the `eqnarray` environment (with or without asterisk) the `\` command with an optional argument — a dimension given in square brackets — actually inserts that vertical space in addition to the default row spacing defined by the format file (in fact this default spacing is given by the `\jot` dimension, which is defined in `lplain.tex`, not in `book`, `report`, `article`, or `letter`, nor in the size-related subsidiary files); of course, anybody can assign this `\jot` a different value, but most users simply don't do it.

The `\` command optional argument behaves in a different way in the `tabular` and `array` environments; this optional argument is used to increment the depth of the strut that implicitly is inserted in the first cell of every row and in the only cell produced by means of the `\multicolumn` command. Therefore it is impossible or difficult to control vertical spacing after every `\hline` and `\cline` command, and after those rows that contain at least one cell whose depth is greater than the implicit strut depth.

With the set of L^AT_EX or plain T_EX predefined commands, in the first case there is no workaround, except, perhaps, inserting a whole row of empty cells, which may result in too much white space. In the second case, it is possible to proceed empirically until one finds the right amount of extra space to insert as the optional argument to the `\` command. In any case, if you try to modify the implicit strut dimensions by redefining `\arraystretch`, you end up with a table or an array that contains too much white space.

Both cases, on the other hand, may be dealt with very nicely if some new struts are defined and inserted in the right places (in addition to the implicit strut) in order to control the vertical space very finely. In my tables and arrays I generally use the following two struts, but in special cases I might define several similar invisible objects:

```
\newcommand\T{\rule{Opt}{2.6ex}}           % Top strut
\newcommand\B{\rule[-1.2ex]{Opt}{Opt}}    % Bottom strut
```

The ‘top strut’ ensures that its row is at least 2.6ex high; the ‘bottom strut’ ensures that it is at least 1.2ex deep.

Compare the following two ruled tables; you will notice in the second one that horizontal rules are not too close to capital letters and that fractions (even if they are set in textstyle and are therefore smaller than usual) do not require guesswork in order to keep them at a reasonable distance from the following rule:

Laplace transforms		
$f(t)$	(p)	no struts
$\delta(t)$	1	optional arg.
$\cos \omega_0 t$	$\frac{p}{p^2 + \omega_0^2}$	

Laplace transforms		
$f(t)$	(p)	with struts
$\delta(t)$	1	optional arg.
$\cos \omega_0 t$	$\frac{p}{p^2 + \omega_0^2}$	

Notice that a bottom strut in the second table is inserted in the denominator of the fraction, not to the side of the fraction, otherwise its extra space would be masked by the fraction depth.

The second table is obtained with the following commands:

```

\newcommand\T{\rule{0pt}{2.6ex}}           % Top strut
\newcommand\B{\rule[-1.2ex]{0pt}{0pt}}    % Bottom strut
\begin{tabular}[t]{|c|c|l|}
\hline
\multicolumn{3}{|c|}{Laplace transforms\T\B}\hline
$f(t)$           \T & $(p)$           \B & with struts  \hline
$\delta(t)$      & $1$           \T & optional arg. \hline
$\cos\omega_0t$ & $\frac{p}{p^2+\omega_0^2}$ \B & \hline
\end{tabular}

```

The `\B` command optional argument is used after the third row, because it does not contain oversized cells; otherwise, it would be better to control vertical spacing with struts only.

Instead of locally defining the top and bottom struts, as done in the example, it is possible to put the definitions in the preamble, or, even better, to define a command that defines them, so that the definition may be kept local to a particular environment or group:

```

\newcommand\setTBstruts{\def\T{\rule{0pt}{2.6ex}}%
\def\B{\rule[-1.2ex]{0pt}{0pt}}}

```

so that it is possible to get them to work with a simple call to `\setTBstruts` only where it is needed.

Labelling equations by names

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Sometimes you want to give one or two of the main results of your paper a name. If the result is in the form of an equation, you might want it to be labeled by the name you gave it instead of by a number. The following four lines define two new commands, `\labeq` and `\elabeq`, that produce a labeled equation for which you choose the label. You can also refer to it later by its label or its page number. The equation does not use up an equation number: if the equation before the labeled equation is number n , the equation after the labeled equation will be number $n + 1$.

```
\makeatletter
\def\labeq#1{\def\@currentlabel{#1}\label{#1}$$}
\def\elabeq{\eqno{\mbox{(\@currentlabel)}}$$}
\makeatother
```

You would use it like this:

```
\labeq{MAIN}
x^2+y^2=z^2
\elabeq
```

which would print as

$$x^2 + y^2 = z^2 \qquad \text{(MAIN)}$$

You could refer to it by writing

See `equation~(\ref{MAIN})` on page~`\pageref{MAIN}`.

This would print as “See equation (MAIN) on page 12.” Note that you must put the parentheses in yourself.

This definition is a genuine hack since it depends on internal L^AT_EX code that is not guaranteed to be the same in future revisions.

(L^A)T_EX News

Announcing OzT_EX 1.5

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OzT_EX 1.5 is now available at the following FTP sites, as well as from TUG:

rsphysse.anu.edu.au	in pub/oztex/newoztex
ftp.tex.ac.uk	in pub/archive/systems/mac/oztex

It should also be at `midway.uchicago.edu`. There have been a lot of changes in version 1.5; here are the most significant ones:

- OzT_EX now has a “big” T_EX (32-bit halfwords). The values of `mem_max`, `mem_top`, `pool_size` and `font_mem_size` can all exceed 64K. Other T_EX parameter limits have also been increased.
- Multiple folders for T_EX input files and `.tfm` files are allowed.
- OzT_EX supports all types of printers (not just POSTSCRIPT printers).
- Non-resident POSTSCRIPT font files can be downloaded on demand.
- OzT_EX supports background printing and typesetting.
- New keyboard short cuts make it easier to proofread a `.dvi` file. (E.g., you can hit the space bar to scroll forwards through a document.)
- The “OzT_EX User Guide” has been updated and expanded.
- OzT_EX is now shareware. More info about the shareware fee is in OzT_EX’s Help menu; or contact the author for more details. All earlier versions remain freeware.

BIBT_EX HyperCard stack

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HyperBIBT_EX is a Macintosh HyperCard application for managing bibliography databases in a format compatible with BibT_EX (as defined in Lamport’s L^AT_EX book and Patashnik’s document “BIBT_EXing”). A HyperBIBT_EX bibliography stack can be created either by manually making new cards or by importing an existing `.bib` file. When you want to make a bibliography for a document, you simply export selected cards from the stack to a `.bib` file and process it with BIBT_EX. HyperBIBT_EX has facilities for searching, sorting, marking cards and data validation.

HyperBIB_{T_EX} requires HyperCard version 2; version 2.1 is recommended because of its superior error handling. It should run fine under System 6, but the Balloon Help facility requires System 7. It also runs under HyperCard Player.

HyperBIB_{T_EX} version 0.9.7, released on 3 May 1993, is an upgrade that fixes various bugs (including a serious bug in version 0.9.5) and adds a number of new improvements and features. If you are presently using an older version of HyperBIB_{T_EX}, I strongly recommend that you upgrade to version 0.9.7. HyperBIB_{T_EX} is freeware and is available by anonymous FTP from:

mac.archive.umich.edu:

/mac/hypercard/organization/hyperbibtex0.97.sit.hqx

sumex-aim.stanford.edu:

/info-mac/card/hyper-bib-tex-097.hqx

midway.uchicago.edu

/pub/0zTeX/bibtex/HyperBibTeX097.sea.hqx

Or you can order HyperBIB_{T_EX} on diskette from:

International Academic Bookstore	e-mail: academic.books@sil.org
7500 W. Camp Wisdom Road	phone: 214/709-2404
Dallas, TX 75236	FAX: 214/709-2433
U.S.A.	

Send all correspondence about HyperBIB_{T_EX} to Evan Antworth, Academic Computing Department at the Summer Institute of Linguistics (phone 214/709-3346).

UK _{T_EX} archive on CD-ROM

Rich Morin

Prime Time Freeware (PTF) 2-1 contains a (300 MB, compressed) snapshot of the UK _{T_EX} Archive, as of late December, 1992. Issue 2-2 will contain a snapshot of files changed between that time and late May, 1993.

PTF is a semi-annual collection of UNIX-related freeware source code and documentation. Each issue consists of two ISO-9660 CD-ROMs, bound into a 50+ page booklet. PTF is particularly useful for programmers who do not have FTP access, but many programmers use PTF to save disk space and avoid annoying FTP searches and retrievals.

PTF 2-1 contains 1,200 MB of compressed archives, unpacking to more than 3,000 MB of source code and documentation, current as of January 15, 1993. The top five items, in order of size (KB), include: the UK _{T_EX} Archive (299,508), SRC Modula-3 (82,198), NetLib Archive (math and sim.) (81,650), ICOT (5th Gen. AI Code) (78,792), and Scheme Language (36,540).

Inquiries and orders may be sent (no e-mail orders, please) to:

Prime Time Freeware	370 Altair Way, Suite 150	Tel: +1 408-433-9662
ptf@cfcl.com	Sunnyvale, CA 94086 USA	Fax: +1 408-432-6149

The CTAN archives

George D. Greenwade
 Chair, TWG on T_EX Archive Guidelines
 bed_gdg@SHSU.edu

The TUG Technical Working Group on T_EX Archive Guidelines (TWG-TAG) was established with the mandate of “develop[ing] guidelines for the effective management and utilization of major T_EX archives, and to initiate communication among the maintainers of the existing archives for the purpose of coordination and synchronization.”

The result of this effort has been the creation and development of the Comprehensive T_EX Archive Network (CTAN). In cooperation with DANTE’s archive at Stuttgart and the UK T_EX Users Group’s archive at Aston, Sam Houston State University (Huntsville, Texas, USA) joins in what is very possibly the largest coordinated archive of file offerings available for network-based retrieval. The goal of the CTAN is to have available comprehensive archives of T_EX-related files (sources, macros, utilities, drivers, pre-packaged complete sets for given operating systems, etc.) within parallel directory and filename structures accessible by common user interfaces. Within a very brief time lag, the holdings at one CTAN host should be precisely the same as on any other CTAN host. Moreover, the interface, command syntax and available local commands to assist users should be the same regardless of which host you are connected to.

Each CTAN host updates its collection with files and packages submitted for archiving, and places them into the pre-established directories within the CTAN structure. From there, they are passed along to the other CTAN hosts as they mirror one another on a daily basis. Additionally, each of the CTAN hosts may serve as a point of entry for contributions directly uploaded to it, which will then be passed along to the other hosts in the network.

As noted in the preliminary announcement for the upcoming TUG meeting, the CTAN is a topic which will receive wide coverage, as well as demonstrations for those interested. Presently, the Internet File Transfer Protocol (FTP) interfaces for anonymous use are parallel between CTAN hosts; eventually electronic mail interfaces to the CTAN archives will also be parallel (and reported as soon as feasible). For users with FTP client access, you are welcome to view and use any of the established hosts:

Host Name	Base CTAN Directory
ftp.uni-stuttgart.de	/pub/tex/
ftp.tex.ac.uk	/pub/archive/
ftp.shsu.edu	/tex-archive/

via anonymous FTP (login as “anonymous” and use your complete electronic mail address as your password). Beyond these base directories, the holdings should parallel one another very closely.

You Rang ... ?

Robert Becker
 Department of Mathematics, Room 2-332
 Massachusetts Institute of Technology
 77 Massachusetts Avenue
 Cambridge, MA 02139-4307
 FAX: (617)253-4358

Welcome to the second column of *You Rang ... ?* As stated in the previous issue of TTN, this column will attempt to satisfy two major needs: first, hardware/software tips and tricks for the general user; second, tips on how to install versions of T_EX and their support packages (dvips, for example). Questions come from you, the reader, by postal mail (not e-mail or COD) or by FAX (see the above number). I definitely want to hear from you. Tell me what you're trying to do and, space and interest providing, a solution will be published.¹ I cannot emphasize enough how important your input is to the T_EX Users Group. I'm looking forward to seeing your questions and comments!

How can I get an indent after a sectioning command?

Sectioning commands all use a construction called `\@startsection`, which is defined in `latex.tex`. Let's take a look at it (I've numbered the lines for explanatory purposes):

```

1. \def\@startsection#1#2#3#4#5#6{\if@noskipsec \leavevmode \fi
2.  \par \@tempskipa #4\relax
3.  \@afterindenttrue
4.  \ifdim \@tempskipa <\z@ \@tempskipa -\@tempskipa \@afterindentfalse\fi
5.  \if@nobreak \everypar{}\else
6.    \addpenalty{\@secpenalty}\addvspace{\@tempskipa}\fi \ifstar
7.    {\@ssect{#3}{#4}{#5}{#6}}{\@dblarg{\@sect{#1}{#2}{#3}{#4}{#5}{#6}}}
```

On line 4 at the end, see the `\@afterindentfalse` command. That says that after the section header is typeset, no indent is allowed in the first paragraph. To allow the indent, copy the above command to a separate file (say, `commands.sty`) in the same directory as the document on which you are working. Now change `\@afterindentfalse` to `\@afterindenttrue`. Last, make sure you call `commands.sty` *after* all other style files are called, and — voilà!

```
\documentstyle[11pt,leqno,commands]{report}
```

¹I will attempt to answer your question, even if it doesn't get published. If I can't answer it, you'll get a pointer to more information.

How do I get an abstract in the right place in L^AT_EX using `\maketitle`?

This is actually a trick question. Using the `\maketitle` command depends on having a `titlepage` environment. In addition, the `titlepage` environment only exists in the `article` and `report` document styles. Here's the general structure (taken from Lamport, page 164²):

```
\begin{titlepage} % Start of Titlepage area
  \title{Title of article or report}
  \author{Author 1\thanks{Acknowledgement of support 1.}
    Company of Author 1\\
    Address of Author 1                               \and
    Author 2\thanks{Acknowledgement of support 2.}
    Company of Author 2\\
    Address of Author 2                               \and
    Author 3\thanks{Acknowledgement of support 3.}
    Company of Author 3\\
    Address of Author 3
  }
  \date{Date of Paper}
\end{titlepage}
\maketitle % Set the Titlepage
\begin{abstract} % Abstract comes after the Titlepage
  Text of abstract.
\end{abstract}
```

Let's tackle this step by step.

`\begin{titlepage}` This starts the environment.

`\title{Title}` This does the obvious. In a long title, you can use the `\\` command to tell L^AT_EX where to begin a new line.

`\author{Author(s)}` Obvious.

`\and` When there are multiple authors, this command goes between each (you don't have to — it's a matter of style: you could simply type `\author{Author 1, ..., and Author n}`). In addition, if each author has an address you wish to specify, typeset it as in the above example, with `\\` to start new lines where appropriate. In the above example, each author will be centered with the corresponding address and will look something like this (only larger because they're authors):

²Leslie Lamport: *L^AT_EX: A Document Preparation System, User's Guide & Reference Manual*, Addison-Wesley, ISBN 0-201-15790-X.

Author 1
Address of Author 1

Author 2
Address of Author 2

Author 3
Address of Author 3

`\thanks{}` This command puts important information in a footnote at the bottom of the titlepage. Note that the footnote uses symbols (*, †, ‡ . . . , ††), not numbers, to differentiate them from footnotes in the main text.

`\date{}` This command puts a date you specify into the titlepage and is optional. If you leave it out, L^AT_EX will put in today's date. You can specify *no* date by typing `\date{}`.

`\end{titlepage}` Ends the `titlepage` environment.

`\maketitle` This command tells L^AT_EX to put together the titlepage. If this isn't in the document, the titlepage doesn't get typeset. Remember to put it *after* the `titlepage` environment: otherwise the abstract goes before the titlepage on a separate page!

`\begin...end{abstract}` The abstract goes here. It will be typeset in a smaller typeface than normal text.

The titlepage style. This is only necessary in the `article` document style as the `report` document style automatically pulls `titlepage.sty` in (and `book` and `letter` document styles don't use `titlepage`). This option specifies that the titlepage and abstract go on separate pages.

How do I change the line spacing?

L^AT_EX has the construction `\baselinestretch` which is used with `\renewcommand` in the following manner:

1. In the preamble, use `\renewcommand{\baselinestretch}{num}` where *num* is a whole number (-1 works, but anything less has the same effect).
2. After the preamble, the above command only works *after* a typesize change, so you need to use something like this:

`\renewcommand{\baselinestretch}{num}\large\normalsize`

Plain T_EX has the length `\baselineskip` and is used as follows:

`\baselineskip=num1plusnum2 minus num3`

where *num*₁ is the amount of skip you want (12pt skip with 10pt text), *num*₂ is the amount it can stretch (3 or 4pt), and *num*₃ is the amount it can shrink (1 or 2pt). These `plus` and `minus` options are necessary so T_EX can break pages without overfull or underfull messages appearing. Another general query is double-spacing; while a 24pt `baselineskip` is technically "double-spaced", the appearance can be much improved by using a skip of only 80% over single spacing. In a case of 10pt text, try a skip of 20pt and see if that's acceptable.

TUG '93 Updates

TUG '93 program (July 26–31)

**Aston University,
Birmingham UK**

Monday, 26 July

10.00–12.30: Tutorials

Either • Introduction to L^AT_EX (what it is and what it is not)
or • Flavours of T_EX: a brief tour

Either • Getting T_EX: how to set up and maintain a T_EX system for yourself and your friends
or • Fonts for T_EX: how fonts are accessed by T_EX, and the many possibilities for obtaining ‘typeset output’

2.00–6.00: Orientation/Keynotes

- A new typesetting system: is it really necessary?
- Brum for beginners
- T_EX from `\indent` to `\par`
- The future of T_EX and TUG

Speakers: Peter Abbott, Bogusław Jackowski, Joachim Lammarsch, Marek Ryćko, Christina Thiele.

Workshops: L^AT_EX3 *or* Virtual fonts

Tuesday, 27 July

8.45–12.30: Multilingual

- A format compilation framework for European languages
- Language-dependent ligatures
- Russian T_EX issues
- Typesetting Catalan texts with T_EX
- Working group report

Speakers: Gabriel Valiente Feruglio, Robert Fuster, Yannis Haralambous, Irina Makhovaya, John Plaice, Larry Siebenmann

2.00–6.00: Tools/Margins

- An abstract model for tables
- Bibliography prettyprinting and syntax checking
- Lexi_TE_X: context-sensitive citations
- Maps in METAFONT
- Mixing T_EX and SGML: a recipe for disaster?

Speakers: Nelson Beebe, Frank Bennett, Peter Flynn, Daniel Taupin, Xinxin Wang, Derick Wood

Workshops: MakeIndex or Problem

Wednesday, 28 July

8.45–1.30: Futures

- A future for T_EX
- Beginner's guide to DSSL
- *Building a future for T_EX*¹
- Building a T_EX-based multi-window environment adapted to research work
- Document centred applications with GRIF
- NTS: the future of T_EX?

Speakers: Martin Bryan, Roger Hunter, Michel Lavaud, Jean Paoli, Philip Taylor, Michael Vulis

Thursday, 29 July

8.45–1.05: Fonts, Maths

- A PostScript font installer written in T_EX
- A versatile T_EX device driver
- On the readability of maths typesetting
- *Scalable outline fonts*
- The Khmer script tamed by the Lion (of T_EX)
- The spacing around mathematics
- Virtual fonts in a production environment

Speakers: Michael Doob, Yannis Haralambous, Berthold Horn, Alan Jeffrey, Minato Kawaguti, David Murphy, Craig Platt, Larry Siebenmann

2.00–6.30: TUG/Archives

- T_EX Users Group general meeting
- The comprehensive T_EX archive network — CTAN

Speakers: George Greenwade, etc.

Workshops: BibT_EX or Multilingual

Friday, 30 July

8.45–12.30: Macros/Didot

- *Electronic type design*
- Fundamental T_EX macros for processing structured documents
- News from MusicT_EX

¹Text in slant font implies an unconfirmed or tentative title.

- Sorting in BLUE
- Syntactic sugar
- Teaching typography — the DIDOT project

Speakers: Mike Daines, Mary Dyson, Jonathon Fine, Kees van der Laan, Daniel Taupin

2.00–3.30: Didot

- Document design
- Wrap-up

Speakers: Richard Southall, etc.

TUG '93 courses (20 July–6 August)

Carol Hewlett
TUG '93 Committee

The following courses will be held the week before the TUG '93 Annual Meeting, and the week after the meeting.

1. Beginning/Intermediate T_EX: 20–24 July
Tutor: Michael Doob
2. Intensive L^AT_EX: 31 July–3 August and 2–5 August (2 courses)
Tutor: Malcolm Clark (31 July–3 August)
3. Advanced T_EX and macros: 20–24 July
Tutor: Chris Rowley
4. T_EX output routines: 2–4 August
Tutor: Philip Taylor
5. Modifying L^AT_EX 2.09 style files: 31 July–1 August
Tutor: Sue Brooks
6. METAFONT logos: 21–23 July
Tutor: Eric-Jan Vens
7. METAFONT fonts: 2–6 August
Tutor: Yannis Haralambous
8. Using the T_EX family for setting maths: 31 July
Tutor: Rosemary Bailey
9. Book design in T_EX: 22–23 July
Tutor: Philip Taylor
10. Doing more with L^AT_EX 2.09: 24–25 July
Tutors: Michel Goossens and Frank Mittelbach
11. Beyond Computer Modern: using other fonts in T_EX: 22–23 July
Tutor: Yannis Haralambous
12. T_EX and POSTSCRIPT: 22–23 July
Tutor: Sebastian Rahtz

All courses will be held at Aston University, Birmingham, UK. For further details, please contact:

Carol Hewlett	E-mail: <code>hewlett@lse.ac.uk</code>
Computer Service, LSE	Phone: +44 71-955 7926
London, WC2A 2AE, UK	FAX: +44 71-955 7001

Reports on Meetings

NTG's Lustrum Meeting

Kees van der Laan
Chairman, NTG

On June 10th, the NTG had its first Lustrum (fifth anniversary) meeting at KNMI De Bilt. Some 60 members (about 25% of the membership) attended the meeting, which was held under beautiful weather. A message entitled "Congratulations from T_EX Users Group" was read aloud on behalf of Christina Thiele, who could not attend the meeting. The NTG board underwent some changes: Johannes Braams was re-elected, and Erik Frambach joined the board as a new member, replacing Theo Jurriens, all by acclamation. Theo Jurriens was thanked for his all-too-short presence on the board, and one of his ideas was realized at this meeting: to pay special attention to the Flemish members. Philippe Vanoverbeke has accepted the task of NTG's Belgian commissioner. This function is informal for the time being. Some formal issues were discussed during the "Other business".

A walk through NTG's history lane was presented by Kees van der Laan, interactively, meaning that attendees could introduce their own appreciations of the past or their visions about the future. For the most recent past, Frans Goddijn gave the speaker some rest by announcing NTG's bulletin board, prepared and maintained by Henk de Haan and himself.¹ My own vision on the future did not concentrate so much on the future of T_EX, but more on the production and consumption of information by the community at large, and T_EX's role in this, next to other tools to be expected to develop.

After the busy lunch — there is always much to talk about, to page through, etc. — we had our meat: Huib van Krimpen, a famous Dutch typographer, and Frank Blokland, a coming man in font design. We also had our own contributions: Rein Smedinga about his experience in preparing a book via L^AT_EX, and instead of the announced Theo Jurriens, who could not make it, Johannes Braams presented a paper he and Walter van der Laan (no relation) had presented at the TUG'92 meeting at Portland: "Writing reports with more than a hundred people". Ça va sans dire, that this was an excellent program, and we all

¹A Dutch article on the issue appears in MAPS93.1, pp. 31–36.

enjoyed it very much. Frank Blokland decided on the spot to become a member of NTG, because T_EX, etc. intrigued him so much, and he — with his professional craftsman background — expects to learn a lot from the other side.²

The speakers got a big hand for their fine contributions. The president invited the attendees to extend this to the editorial team, the working groups for their fruits during the past five years, and to the board and the membership for the achievements we have made. The host was thanked for their kind hospitality, and that it was a bit overdone — to make up for those high temperatures outside. Enough heat was on already. We finished up with an informal lustrum drink, and the traditional dinner with the speakers, and members to hang on.

TUG Board Activities

1993 T_EX Users Group Election

Barbara Beeton
for the Elections Committee

The terms of all 15 members of the first elected Board of Directors will expire on December 31, 1993. The election to choose the new Board members will be held this fall, and nominations are invited.

The Bylaws provide that “Any member may be nominated for election to the Board by submitting a nomination petition in accordance with the TUG Election Procedures. Election of the directors shall be by written mail ballot of the entire membership, carried out in accordance with those same Procedures. Each director will hold office for a term of two (2) years. Directors may be re-elected for successive terms.”

The name of any member may be placed in nomination for election to this office by submission of a petition, signed by two other current (1993) members, to the TUG office at least 30 days prior to the election. A petition form follows this announcement; forms may also be obtained from the TUG office and will be available at the annual meeting, to be held this year at Aston University, Birmingham, UK.

Along with a petition form, each candidate is asked to supply a passport-size photograph, a short biography, and a statement of intent to be included with the ballot; the biography and statement of intent together may not exceed 400 words. The deadline for receipt at the TUG office of petitions and ballot information is **September 1, 1993**.

Some changes have been proposed in the structure of the Board and the terms of Board members. As most Board members attend the annual meeting, and making arrangements to attend meetings at other times of the year is often

²If not we from him.

Nomination for 1993 TUG Board of Directors Election

Only current (1993) TUG members are eligible to participate. The signatures of two (2) members are required in addition to that of the nominee. **Type or print** names clearly, exactly as they appear in the most recent TUG membership list or on a TUG mailing label; new members should enter the name which they used on their membership application form. Names that do not exactly match the TUG records will not be accepted as valid.

The undersigned TUG members propose the nomination of:

Name of nominee	(signature)	(date)
------------------------	-------------	--------

for the position of **Member of the TUG Board of Directors**, for a term beginning **January 1, 1994**.

Members supporting this nomination

Nominated by (please print)	Signature	Date

Return this petition to the TUG office (FAXed submissions will also be accepted). Petitions must be received in the TUG office no later than **September 1, 1993**.

T_EX Users Group **FAX:** 805-963-8358
Nominations for 1993 Election
 P.O. Box 869
 Santa Barbara, CA 93102-0869
 U.S.A.

difficult, it has been proposed that the term be shifted so that the terms of outgoing members end, and those of new members begin, with the annual business meeting. This arrangement should assure a smooth transition, with both old and new members able to attend at the same time.

A second proposed change would alter the lengths of some terms for one time only, so that not all members of the Board are replaced at the same time, but only one-third. For Board members elected this year, it would mean that five will have terms that end with the 1995 annual meeting, five with the 1996 annual meeting, and five with the 1996 annual meeting. Thereafter, all new terms will be for three years. All positions will be elected this year on the same basis, and the members of each of the three groups chosen by lot by the disinterested person or organization whose services are procured to count the ballots and certify the results.

Subject to approval by the present Board at their annual meeting, these new procedures will be in effect for the upcoming election.

Ballots will be mailed to all members about 30 days after the close of nominations. Marked ballots must be received no more than 6 weeks following the mailing; the exact date will be noted on the ballots.

Ballots will be counted by a disinterested party not part of the TUG organization. The results of the election should be available by the end of November.

Notices

• Technical Council

Michael Ferguson
for the Technical Council

The Technical Council would like to solicit ideas and volunteers for the creation of "Special Interest" Technical Working Groups. A current example is

WG-92-04 (SI-TWG)

Title: Special Interest TWG
T_EX for the Disabled

Mandate: The primary purpose of this working group is as a forum for those people interested in using and/or enhancing T_EX to serve the needs of the disabled.

TWG Chair: T.V. Raman (raman@cs.cornell.edu)

Please contact Michael Ferguson, Yannis Haralambous or Alan Hoenig, at the TUG meeting in Aston or by email at

Michael Ferguson (Chair):	mike@inrs-telecom.quebec.ca
Yannis Haralambous:	yannis@gat.citilille.fr
Alan Hoenig:	ajhjj@cunyvm.cuny.edu

• Conference Planning Committee

Jackie Damrau
for the Conference Planning Committee

We are soliciting the membership for volunteers to host our annual meetings. The meeting this year in Birmingham, England is our first meeting outside of North America, and hopefully will enable many more European members to attend the annual meeting. In keeping with this approach, we would like to promote a meeting sequence in which meetings would occur in a different area of the world each year, thus giving all TUG members an opportunity to attend an annual meeting periodically without undue expense. It is our hope that members from different countries will volunteer.

What is the process for deciding where meetings will be held? The committee solicits bids from members, and submits proposals to the TUG Board, who make the final decision.

What is involved? Using the recorded experience of past conference organizers, the committee has compiled a minimal checklist for volunteers to complete and return to the committee for an initial bid to host a meeting. Along with this checklist, the committee plans to provide organizers a summary of tips — a sort of “things to do” and “things to avoid”.

Would you like to host an annual meeting at your site? If you are interested, please contact committee chair, Jackie Damrau, at

Jackie Damrau, Chair	Phone: 214-708-6048
SSC Laboratory	FAX: 214-708-5143
Mailstop 1011, Ste. 125	E-mail: tugcpc-1@irlearn.bitnet
2550 Beckleymeade Avenue	
Dallas, Texas 75237, USA	

Next Board Meeting

24–25 July, at TUG '93
Aston University, Birmingham, England

T_EX Users Group 1993 Course Schedule

<i>Beginning/Intermediate T_EX*</i> Santa Barbara** Oct. 18–22 Santa Barbara Feb. 7–11	<i>Intensive Course in L^AT_EX*</i> Ottawa August 23–27 Santa Barbara** Oct. 25–29 Santa Barbara Jan. 31–Feb. 4
<hr style="width: 50%; margin-left: 0;"/> <i>Modifying L^AT_EX Style Files*</i> Santa Barbara Feb. 28–Mar. 4	<hr style="width: 50%; margin-left: 0;"/> <i>Adv'd T_EX and Macro Writing*</i> Santa Barbara** Nov. 1–5 Santa Barbara Feb. 14–18
<hr style="width: 50%; margin-left: 0;"/> <i>T_EX for Publishers</i> Washington, D.C. Nov. 12	<hr style="width: 50%; margin-left: 0;"/> <i>Practical SGML and T_EX*</i> Santa Barbara** Nov. 8–9
<hr style="width: 50%; margin-left: 0;"/> <i>Book and Document Design with T_EX</i> Boston Sept. 23–24	<hr style="width: 50%; margin-left: 0;"/> <i>SGML and T_EX for Publishers*</i> New York Nov. 10

*Lab classes — computers will be provided for all students.

**NOTE: These classes, previously scheduled for Boston, have been moved to Santa Barbara.

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- TUG courses are small, with 8–15 students in most classes.
 - Dates and locations subject to change — contact the T_EX Users Group at 805-963-1338 or send a FAX to 805-963-8358.
-
-

On-Site Courses in T_EX and L^AT_EX from T_EX Users Group

- Courses in T_EX, L^AT_EX, SGML and T_EX, PostScript, or T_EX 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

26–30 July	TUG '93: “World Wide Window on T _E X” 14th Annual Meeting, Aston University, Birmingham, UK.	Chris Rowley, ca.rowley@vax.acs.open.ac.uk Malcolm Clark malcolmc@wmin.ac.uk
15 Aug.	EP94, RIDT94 deadline: Call for papers for major joint conference in Darmstadt, Ger- many, 11–15 April 1994.	EP94: ep94@gmd.de RIDT94: ridt94@irisa.fr
23–24 Sept.	DANTE: 9th general meeting of DANTE, including free tutorials on vari- ous themes. Kaiserslautern.	Klaus Uttler uttler@rhrk.uni-kl.de
28–29 Sept.	Electronic Books 1993: First annual meeting, at the Sheraton New York, New York City. Pre-conference workshops on 27 Sept.	Meckler@jvnc.net Phone: (203) 226-6967 In USA: 1-800-632-5537 FAX: (203) 454-5840
18 Nov.	NTG 12th Meeting: “(L ^A)T _E X User Environment”. Den Bosch, OCÉ.	Gerard van Nes vannes@ecn.nl
Spring 1994	NTG 13th Meeting: “(L ^A)T _E X, METAFONT, and tools education.” Groningen, at RUG.	Gerard van Nes vannes@ecn.nl

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_lCT_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 throughout North America and Europe. TUG will customize on-site courses to meet your company's specific needs.
8. **Discounts:**
 - ▷ Discounted Annual Meeting fees
 - ▷ Student rates for membership (**50% off individual rates!**)
 - ▷ Discounts on the purchase of selected TUG publications
 - ▷ Discounts on TUG-sponsored courses

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