

Dictionary Formatting

The Warlpiri Dictionary Project has a large document set out with R20 formatting commands. We wish to convert this to L^AT_EX or T_EX.

- (1) Does anyone know of a utility which would do the conversion?
- (2) Does anyone know of a (bi-lingual) dictionary style macro package? This would recognise an entry with its repeating internal structure as the building unit, get the running heads right, possibly allow indexing of the English glosses, and so on.

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Printing Out Selected Pages

As new users of T_EX, we have lots of questions, but one which is particularly “niggling” is: Is there some way by which one can select only a page (or pages) of printout? In long manuscripts, there is often a need for only a few pages that have been corrected, rather than reprinting the whole paper. No one here has been able to figure it out, other than creating a separate file of just those few pages needed.

Helen S. Horstman
Lowell Observatory, Flagstaff, AZ

Editor’s note: There are two ways of approaching this: through T_EX, and post-T_EX.

Many output drivers offer the ability to print selected pages from a DVI file, usually by specifying a starting/ending page range, or a starting page number and number of pages desired. This technique has the disadvantage that the entire manuscript must be processed by T_EX (however, page numbering will be the same as in the whole job, which is not automatically true if a separate partial file is created).

Some T_EX implementations accept interruptions from the terminal while T_EX is running, presenting a ? prompt which can be answered by x to terminate the job cleanly, i.e. with a printable DVI file. (For example, VAX/VMS implementations can usually be interrupted by ^C; the TOPS-20 implementation can be interrupted by ^G. A carriage

return will permit an interrupted job to continue with no adverse effects.) Use of this feature may be appropriate if the changed pages are near the beginning of the manuscript.

Some macros intended to generate only selected material from a larger T_EX input file have recently appeared in T_EXhax. We will try to track these down for inclusion in the next issue.

Letters

Wanted: Help for Beginners

To the Editor:

As a new member and a beginner at T_EX, I find my membership of TUG useful. However, I feel that TUGboat makes almost no attempt to help beginners. We’re not all wizards! More introductory articles please!

Raymond A. Ryan
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Editor’s note: We’re glad that you do find TUG useful, and will continue to try hard to keep it that way.

On the subject of TUGboat, this editor has said many times that she will publish (within the bounds of relevance and decency) whatever is submitted. Three members of the Editorial Committee are particularly interested in the problems of new users and “low-level” users: Jackie Damrau of the University of New Mexico (L^AT_EX), Maureen Epstein of Stanford University (applications in Plain T_EX), and Laurie Mann of Stratus Computer (training issues). Articles or other items in these areas should be submitted through them. (The traffic has been very light — if we were on a desert road waiting for help, we would long since have perished of thirst.)

TUGboat is *your* journal! Help make it a useful one!

More Hyphenation Exceptions

To the Editor:

I recently received the November issue of TUGboat, and I was glad to find the Hyphenation Exception Log on page 121. I would like to contribute my own findings:

TeX	"Correct"
tele-g-ra-pher	te-leg-ra-pher
schot-tis-che	schot-tische

From the exception list and the actual hyphenations of TeX I gather that all syllable divisions are legal end-of-line breaks. This may not always be the case. I have collected some hyphenations that I think may be unacceptable in well typeset texts. I have indicated these with a ? in the examples below.

- a) Words ending in -cle, -tle, -ple, -ble, -gle, -dle, etc.
 trea?cle lit?tle peo?ple am?ble sin?gle trea?dle
 (*Chicago Manual of Style*, 6.33ff discourages it; Merriam-Webster's *Third New International Dictionary*, vol. I, p. 22a, 11.3, seems to discourage trea-dle)
- b) Words in which a single vowel constitutes a syllable.
 crit?i-cism lig?a-ture phys?i-cal sep?a-rate
 prej?u-dice anal?y-sis
 (CMS, 6.35 discourages it; MWTNID unclear. Anal-ysis should definitely be discouraged!)

I first reacted against these hyphenations because they differ from the (British) hyphenation practice I am used to. As it seems that American practice discourages these breaks, too, perhaps there is reason to revise the hyphenation patterns of TeX.

Anders Thulin
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Editor's note: This letter was mislaid, as is painfully obvious from the issue reference, but the information it contains is on a subject that is always up-to-date. The Editor hopes that Mr. Thulin will accept her sincere apology. The latest iteration of the Exception Log appeared in vol. 7, no. 3, page 145. We plan to make this a regular feature of the last issue each year, and solicit additions.

New Fonts for Mathematics?

To the Editor:

I think it is high time we retired math italic and use instead a font designed especially for mathematics. It needs to be highly readable (which italics isn't) and yet be very different from the Times typeface.

Without TeX I have been using the Laser-Writer's Courier font for mathematics. Its thin strokes make it easily distinguishable from Times and it is quite readable (if only because we've been forced for a long time to read it in letters and first drafts of documents). No longer is it necessary for me to change fonts for things like 3, det, and cos. With TeX it is a different story. Can anyone tell me how to replace math italic with another font (including its digits) without losing the special symbols or getting punctuation out of order?

William A. McWorter
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Editor's note: Since the Courier font referred to by Mr. McWorter does not exist on our typesetter, we have substituted the closest font available. This is the Computer Modern tt font, which, although heavier than Courier, is also a monospace or fixed-pitch font.

In the particular examples cited, traditional math typography would use roman, not italic, type, and indeed it can be difficult to distinguish such an expression when it appears in the middle of text. It is also very difficult to distinguish the mathematical term "a" from the English article "a" in the context of a theorem, traditionally set all in italic. Some experimental styles have used slanted, rather than italic, type to make such distinctions clearer; one might also note that Computer Modern math italic was designed with letter shapes slightly different from those of text italic for presumably the same reason.

The American Math Society, when it commissioned Hermann Zapf to design the Euler Fraktur and script fonts, also received designs for an upright "cursive" font, intended to resemble notation handwritten on a blackboard. One purpose of this design was to avoid the sometimes severe problems associated with applying accents and indices (sub- and superscripts) to italic letter symbols. Some experiments have been performed using this font to set math, but none have yet reached publication. The feeling has been that most mathematicians are

quite conservative regarding the appearance of math journals, and might not accept the cursive notation readily. Perhaps Mr. McWorter is a harbinger of change in this regard.

Here is a small sample of the Euler cursive, with the same material in Computer Modern math italic for comparison.

$x^2 + y^2 = z^2$	$x^2 + y^2 = z^2$
$f^*(x) \cap f_*(y)$	$f^*(x) \cap f_*(y)$
$D \sim p^\alpha M + l$	$D \sim p^\alpha M + l$
$\frac{dy}{dx} = f(x, y)$	$\frac{dy}{dx} = f(x, y)$
$\frac{\partial \varphi}{\partial t} = f(\varphi, t)$	$\frac{\partial \varphi}{\partial t} = f(\varphi, t)$

Announcements

Workshop on Font Design Systems

A workshop on Font Design Systems is being organized by INRIA to be held in Sophia-Antipolis (near Nice) on 18–19 May 1987. Papers have been solicited on the following topics:

- High, medium or low resolution font systems
- Character design algorithms
- Interactive systems
- Experiments with **METAFONT**, etc.
- Exotic alphabets
- 3D characters
- Logo design

The deadline for submitting papers has passed; for details on attending the workshop, please contact

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Special Course, Spring Quarter 1987

T_EX: The Program:

A case study in software design

Donald Knuth
 Stanford University

This special course will be given by Donald Knuth at Stanford during the Spring Quarter, 1987. It will consist of about twenty 75-minute lectures on Tuesdays and Thursdays, 1:15–2:30 p.m., starting in early April and continuing until early June. The course designation is CS 349; this is a 3-unit course.

The implementation of T_EX will be discussed as an example of the design and documentation of a medium-size software system. Also discussed will be the WEB system of structured documentation. Knowledge of the T_EX and Pascal languages is a prerequisite. Students will learn enough about the innards of T_EX to make extensions to the system. The text for the course will be *T_EX: The Program*.

As with Knuth's previous T_EX-related courses, this course will be transmitted to remote locations via the Stanford educational network, and it will be videotaped.

Videotapes of the course

If there is enough interest among the organizations represented in TUG's membership, TUG can make a special arrangement with Stanford University to lease these tapes for a year or more, with the right to sublease them. The exact details of how this would work and how much it would cost cannot be determined until TUG has an indication of the interest in setting up such an arrangement. A very rough estimate, however, would be as little as \$1,000 or up to \$2,000, again depending on the number of participants. The cost of leasing the tapes directly from Stanford would be at least several thousand dollars higher.

Any organization interested in participating in a TUG-sponsored lease arrangement should contact the TUG office by May 15, 1987; call 401-272-9500, ext. 232.