

ery round; generally a description is given, see section 4 example b.

The author is grateful to Victor Eijkhout of the University of Nijmegen and Nico Poppelier of the University of Utrecht for their suggested improvements. With my colleague Jan Luyten I had the pleasure of fruitful discussions.

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News & Announcements

WOODMAN '89: Workshop on Object Oriented Document Manipulation

29-31 May 1989
Rennes, France

The advent of electronic publishing has led to increasing interest in object-based description and processing of document structure. Standards such as ODA and SGML are a first step in that direction although this is not made explicit. Hypertext and Hypermedia systems follow another related road. Object-Oriented Languages, object-oriented databases and more generally innovative techniques based on the object model may help to support the handling of document logical structure.

This workshop will deal with ideas such as these. Presentations have been invited on research results, prototype experiences and surveys on

Object Oriented Languages AND:

- Document Structuring
- ODA
- SGML
- Imaging Models
- Mixed Mode Documents
- Hypertext and Hypermedia
- Document Databases
- Character Design and Recognition
- Parallel Processing of Documents

WOODMAN'89 is organized with the help of the BIGRE bulletin. Co-chairmen are Jacques André and Jean Bézivin. For more information, contact

BIGRE/WOODMAN'89

IRISA - Campus de Beaulieu

F-35042 Rennes Cedex, France

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Calendar

1989

- May 1 **TUGboat Volume 10, No. 2:**
Deadline for receipt of manuscripts.
- May 16-17 **Congres GUTenberg**, Paris, France.
Theme: \TeX and graphics. For information, contact Bernard Gaulle (Bitnet: UCIR001@FRORS31. See also page 118.)
- May 29-31 **WOODMAN '89**, Workshop on Object Oriented Document Manipulation, Rennes, France. For information, contact Jacques André (jandre@irisa.irisa.fr or fax: (33) 99 38 38 32. See also page 116.)
- Jun 29-30 **NTG — Nederlandse \TeX Gebruikers**, "TeX happening". Utrecht, The Netherlands. For information, contact C.G. van der Laan (Bitnet: cgl@hgrrug5, or +31/50 633374. See also TUGboat 9#3, page 316.)
- Jul 30-
Aug 4 **ACM SIGGRAPH '89**, Boston, Massachusetts. Contact: Chris Herot or Branko Gerovac, (312) 644-6610.
- Sep 11-13 **\TeX 89: 4th Annual Meeting of European \TeX Users**, University of Karlsruhe, FRG. For information, contact Rainer Rupprecht (Bitnet: RZ32@DKAUNI48. See also page 118.)
- Oct 3-6 **Protex V Conference: 5th International Conference on Computer-Aided Text Processing and its Applications**. Boston, Massachusetts. For information, contact Protex Conference, INCA, P. O. Box 2, Duín Laoghaire, Ireland; +353-1-613749.
- Oct 12-13 **RIDT'89 — Raster Imaging and Digital Typography**. Ecole Polytechnique Fédérale, Lausanne, Switzerland. For information, contact Prof. R.D. Hersch, Lausanne, Switzerland; (4121) 47 43 57/693 43 57 or hersch@elde.epfl.ch; or Debra Adams, (415) 494-4022 or adams.pa@Xerox.com. (See announcement, TUGboat 9#3, page 316.)

 \TeX Users Group 1989 Conference

— Tenth Anniversary —

Stanford University, Stanford, CaliforniaAug 14-18 **Short Courses: to be announced**Aug 21-23 **TUG Annual Meeting**Aug 24-25 **Short Courses: to be announced**

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- Sep 11 **TUGboat Volume 10, No. 3:**
Deadline for receipt of manuscripts (tentative).

1990

- Jan 15 **TUGboat Volume 11, No. 1:**
Deadline for receipt of manuscripts (tentative).

For additional information on the events listed above, contact the TUG office (401-751-7760) unless otherwise noted.

**GUTenberg Congrès:
T_EX et les graphiques**

Paris, 16-17 May 1989

The second annual Congrès of the Groupe francophone des Utilisateurs de T_EX will be held in Paris on 16-17 May 1989. The theme will be T_EX and graphics. Various papers will present a survey of T_EX graphics under MS/DOS, UNIX, VMS and Mac. New products will be unveiled. Major topics are presently oriented around METAFONT and PostScript. A "grand gourou" speaker will be invited. Will this person speak about new color products?

An introductory L^AT_EX course is being organized by Olivier Nicole and Jacques Beigbeder; a tutorial on METAFONT is planned by Victor Ostromoukhov.

A general assembly of GUTenberg members will be held on the evening of the first day in order to approve the composition of GUTenberg's executive board and to approve its decisions.

The two-day cost for the Congrès will be nearly 400FF for GUTenberg members, plus an additional 200FF for non-members. The location will be at a Paris north gate (Porte de la Chapelle) that's not so far from Roissy airport.

The *Cahiers GUTenberg* will begin publication officially during 1989. This journal will be formatted for A4 paper, using French typographic conventions. A L^AT_EX style file will be provided to prospective authors. It is expected that many of the papers to be presented at the Congrès will be published in the *Cahiers*. Subscription prices have been set at 150FF per year for GUTenberg members, 250FF for non-members. Four issues are planned for this year.

For information on the Congrès or the *Cahiers*, contact

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**T_EX89: 4th Annual Meeting of
European T_EX Users**

September 11-13, 1989
Karlsruhe, FRG

T_EX89, the 4th European T_EX Conference, will take place at Karlsruhe University, FRG, from Monday, September 11, to Wednesday, September 13, 1989. The conference will be organized by Anne Brüggemann-Klein, Department of Computer Science, University of Freiburg, and Rainer Rupprecht, Computing Center, University of Karlsruhe.

Following the tradition of last years' conferences, contributions are welcome from all areas of T_EX, METAFONT, and related subjects. Likely themes might include:

- Document structures
(L^AT_EX, SGML, ODA, ...)
- Non-technical T_EX
(humanities, music, exotic languages, ...)
- Other technical areas
(chemistry, physics, biology, ...)
- Difficult jobs with T_EX, L^AT_EX, ...
- Graphics and T_EX
- T_EX training
- T_EX as part of a larger system
(user interfaces, tools, environments, ...)
- T_EX as a production tool
- Fonts to use with T_EX
(METAFONT and other systems)
- T_EX and PostScript
- Macro packages
- Public domain T_EX vs. commercial T_EX

Besides traditional paper sessions, discussion groups on special subjects and exhibitions will be organized. In a special session at the end of the conference, highlights of the discussion groups will be presented to the general audience. Conference proceedings will be published after the conference.

Various workshops and participatory seminars will be offered before and after the conference. Proposals for topics and voluntary tutors are welcome.

The conference fee will be approximately DM 280,-. The fee includes registration materials, lunches, social events and a copy of the conference proceedings.

For information, contact

Rainer Rupprecht
Rechenzentrum
Universität Karlsruhe
Postfach 6980
7500 Karlsruhe 1, FRG
Bitnet: RZ32@DKAUNI48

A UK T_EX Users' Group — Report of a preliminary meeting

David Osborne
University of Nottingham, UK

National user groups in the T_EX-speaking world are quite the fashion these days, it seems. With the formation of user groups in West Germany, France and the Netherlands, there is an active and growing involvement of European T_EXers in meeting to discuss T_EX matters. To date, although there has been a widespread and growing use of T_EX within the United Kingdom academic community and also, fortunately, outside it, contact between users of T_EX has been largely informal. It has been common for T_EX users who encountered each other at various non-T_EX seminars and conferences to swap experience and news during coffee-breaks.

The undoubted success of the Third European T_EX conference in Exeter in July ("T_EXeter88") brought together a significant number of British users and produced a momentum for the formation of a user group devoted to T_EX. Credit for masterminding both the Exeter conference and the first organised meeting of UK T_EX users goes to Malcolm Clark of Imperial College, London. Thus it was during one of those coffee-break T_EX get-togethers in late September that I found myself the subject of Malcolm's well-known persuasive skills and agreed to organise an inaugural meeting at which a UK group might be formed.

Due to the short notice at which the meeting was arranged, its announcement was by electronic mail and details were also given in the UKT_EX Digest. This led to an unfortunate emphasis in favour of academic users; however, a number of T_EX users from commercial companies were among the 36 who came to the meeting held at the University of Nottingham on November 4th. I tried to plan the programme with a balance between talks and an opportunity to discuss the aims of the group but, as might be expected, there was just not enough time for everything.

The first speaker was Charles Curran of Oxford University. Charles has been actively interested in METAFONT for some years and discussed how fonts can be matched to specific output devices by tuning the `mode_def` parameters. It was obvious that this is a lengthy process of trial and error. During questions which followed, it was suggested that optimum results could be obtained if a definitive standard were available in the form of a laser-printed

Computer Modern "Sample Book", in the manner of Volume E of "Computers and Typesetting".

Since I have been involved in setting up T_EX on systems in our computing centre, I tried to give an overview of some of the pitfalls which await the novice implementor, despite the amount of helpful information in README files and other documentation. In fact, this is part of the problem: the sheer volume of information which needs to be assimilated and, ideally, before starting. I wondered if there is scope for a succinct yet detailed "How to implement T_EX and METAFONT on system X..." document for each major system.

From the somewhat arcane topics of METAFONT and T_EX implementation, our attention turned to an topic of which concerns many users in a stimulating look at "L^AT_EX in ConT_EXt" from Sue Brooks of BUSS Ltd. As someone using L^AT_EX to document a significant software package, Sue's point of view was that of the author and she gave a clear overview of the benefits which L^AT_EX offers a writer for logically structuring their document.

After lunch, we were treated to two very interesting reports from recent conferences. Cathy Booth from Exeter University had attended this year's TUG meeting in Montreal and described those threads running through the meeting which had most caught her attention. Chris Rowley of the Open University gave a companion talk on events at the Freiburg meeting in West Germany. It was clear from his description of the proposed further development of T_EX and L^AT_EX that we will be hearing much of interest from West German T_EX users in future.

As has already been mentioned, time was short and it was with regret that, with his agreement, we postponed the talk on "Picture Languages" from Sebastian Rahtz of Southampton University; hopefully, Sebastian will give this talk at a later meeting. Malcolm Clark then took the floor to give a wide-ranging assessment of the world T_EX situation. He had recently been appointed European T_EX coordinator (*in absentia!*) and was not yet sure what this entailed.

Malcolm first outlined the activities of TUG itself, then broadened the picture to include the various national groups which have been formed, not forgetting those groups with peripheral interests in T_EX as one aspect of electronic typesetting. Focusing on the main reason for the meeting, Malcolm then looked at what he felt was needed to further the T_EX cause and how a UK group could help to this end. There is clearly a need for English hyphenation patterns and some tentative plans were made

to develop these. He suggested there is scope for more in the way of information for those currently outside the T_EX community. This might include a descriptive “flyer”; details of typesetting bureaux who accept DVI files; descriptions of style files and more help for the implementor. Workshops on topics such as METAFONT, style files and document design could help current T_EX users to make best use of the software.

In the end, no firm plans were made at this meeting to form a UK T_EX users’ group but those present confirmed an interest in doing so. It was agreed that a further meeting would be held in London in February or March, since London is, for many, more accessible than Nottingham and the date would allow Malcolm to report on a TUG committee meeting which he would attend in January.

Finally, my thanks go to all the speakers who agreed, at short notice, to talk at the Nottingham meeting and to my colleagues in the Cripps Computing Centre who helped with the domestic arrangements. Thanks, too, go to the trustees of T_EXeter88 for financial support which assisted in providing lunch and refreshments. I hope those who attended found the meeting useful and that it will be the first of many.

Late-Breaking News

Production Notes

Barbara Beeton

Input and input processing

Electronic input for articles in this issue was received by mail and on floppy disk. Four articles were accepted in the form of camera copy (see the section on output), as were several illustrative samples that required special fonts or that could not be prepared on the American Mathematical Society’s typesetter for other reasons.

Authors who had written articles previously for TUGboat typically submitted files that were fully tagged and ready for processing with the TUGboat macros — `tugbot.sty` for PLAIN-based files and `ltugbot.sty` for those using L^AT_EX. (When

possible, a copy of the file actually used for production is returned to the author, along with the current version of the macros, if the author has requested them or if there have been changes. This seems to provide authors with incentive to write again for TUGboat.)

Articles in which no, or limited, T_EX coding was present were tagged according to the `tugbot.sty` conventions. Articles tagged according to the author’s own schemes were modified sufficiently to permit them to be merged with the rest of the stream. Especial care was taken to identify macro definitions that conflicted with ones already defined for TUGboat. In the case of L^AT_EX-based articles, it was not necessary to consider interactions with other articles. (`\documentstyle{article}` is the basis for `ltugbot.sty`; no method has yet been devised for processing multiple articles in a stream, so each is processed separately, and physical pasteup is used where required to merge partial pages.) For PLAIN-based articles, the side-effects of an author’s own definitions can usually be kept to a minimum by posting `\begingroup... \endgroup` around the article.

Most submissions for this issue were PLAIN; for convenience in processing, two items submitted in L^AT_EX but using no significant L^AT_EX features were converted to PLAIN. For these items, test runs of T_EX separately and in groups were used to determine the arrangement and page numbers (to satisfy any possible cross references). The final processing of these articles was in three T_EX runs, with ranges of page numbers skipped where L^AT_EX-based items would be inserted; starting page numbers of L^AT_EX items were indicated to support cross-referencing. L^AT_EX items, as mentioned above, were processed individually, and arranged in the proper order after camera copy was produced.

The following articles were prepared using L^AT_EX; all others (except for items received as camera copy, for which see below) used the regular `tugbot.sty`.

- Michael Harrison, *News from the VORTEX project*, page 11.
- Adrian Clark, *An enhanced T_EX-editor interface for VMS*, page 14.
- Peter Abbott, *UKT_EX and the Aston archive*, page 59.
- Michael Modest, *Using T_EX and L^AT_EX with WordPerfect 5.0*, page 68.
- Sriram Sankar, *APE — A set of T_EX macros to format Ada programs*, page 89.

- Frank Mittelbach, Addendum to *A new implementation of the array- and tabular-environments*, page 103.
- Schöpf, Rainer, *Drawing histogram bars inside the L^AT_EX picture-environment*, page 105.
- Dezső Nagy, *Vertical centering for transparencies*, page 108.
- C. G. van der Laan, *Typesetting Bridge via L^AT_EX*, page 113

Output

Camera copy for this issue of TUGboat was prepared on the devices indicated, and can be taken as representative of the output produced by those devices. The bulk of this issue was prepared at the American Mathematical Society on a VAX 8700 (VMS) and output on an APS- μ 5 using resident CM fonts and additional downloadable fonts for special purposes. The items listed below were received as camera copy; they were prepared on the devices indicated. The output devices used to prepare the advertisements were not usually identified; anyone interested in determining the device used for a particular ad should inquire of the advertiser.

- Unidentified:
 - all advertisements.
 - sample page of Japanese T_EX input, page 10.
- Apple LaserWriter (300 dpi): Michael Harrison, *News from the VORTEX Project*, figure page 13.
- Autologic APS- μ 5 (1440 dpi): Donald E. Knuth, *Typesetting concrete*, page 31; DEC 10.
- Canon CX (300 dpi): Georgia Tobin, *A handy little font*, page 28.
- Hell Digiset (900 dpi): sample page accompanying *A T_EX encounter in Japan*, page 9; FACOM (Fujitsu).
- Océ 6750 (20 dots/mm): Marius Broeren and Jan van Knippenberg, *High quality printing of T_EX-DVI files in the VAX/VMS environment*, page 56; VAX/VMS.
- QMS PS 810 (300 dpi): Kim Kubik, *AmigaT_EX...*, page 65; Amiga.

Coming Next Issue

Printing Vietnamese Characters by Adding Diacritical Marks via T_EX

Brother Eric Vogel FSC
Saint Mary's College, Moraga, CA

The technique described uses T_EX to produce the diacritical marks for the various vowels needed for Vietnamese. The marks used are: accent grave, accent acute, tilde, question mark and dot (below). New vowels will be introduced using the above by placing a hat (above a or e) or breve accent (above a) or by attaching a "beard" (using the breve accent) to o and u. The macros for these diacritics will be given.

Chess Printing via METAFONT and T_EX

Zalman Rubenstein

Every chess fan knows the pleasant difference between seeing an interesting chess position or a chess problem printed, and looking at the standard description of the pieces by means of an 8 \times 8 coordinate system a1 to h8.

To help bridge this gap we have written a METAFONT-T_EX program which enables one to print chess positions with ease, and to incorporate these positions with an arbitrary T_EX output.

