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General Delivery

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THE TₑX LOGO:
AN IMPORTANT NOTE

At the July TUG meeting, Don Knuth made the following request concerning the TₑX logo. Because many devices are unable to render the lowered "E" in the original TₑX logo, an alternate form has been devised, using a lower-case "e" to retain the spirit of the original: TeX. Whenever anyone refers to TₑX in print in a context which may ultimately be unable to render the old-style logo properly (e.g. a news release), the alternate form, TeX, should be used, and, if appropriate, some mention should be made that this is the logo for Don Knuth's "Tau Epsilon Chi". This is necessary to distinguish TₑX from an operating system called TEX that has been developed (and registered) by Honeywell.

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REPORT ON BUSINESS MEETINGS
TUG SUMMER MEETING
STANFORD UNIVERSITY, JULY 25-27, 1982

Susan Plass

Robert Morris has resigned as TUG secretary; Susan Plass was elected to replace him. Michael Spivak has agreed to serve as chairman until the next meeting.

A continuing question has been whether or not TUG should incorporate. This issue assumed a greater urgency when the AMS decided to terminate subsidies to TUG with the next fiscal year. Sam Whidden consulted the AMS attorney about the legal ramification of incorporation and reported that as long as TUG remains a small organization with limited finances there is no need to incorporate. The lawyer did recommend that TUG draft and adopt a set of bylaws under which to operate. A bylaws committee was formed consisting of Lance Carnes, Ray Goucher, and Susan Plass. They plan to present at the next TUG meeting a draft to be voted on by the membership.

General meeting

The following actions were taken by the membership at the general meeting:

- A general policy was set that membership fees should be set to cover the direct costs of the TUGboat issues to be published in that year.

Conference fees will be set to recover both direct conference costs and other TUG indirect costs.
- TUG membership for 1983 will cost $20 including a subscription to TUGboat; two issues of TUGboat are planned for 1983.
- For 1983 we will offer an institutional membership for $200. Institutional membership entitles an organization to name up to 5 individuals to receive subscriptions to TUGboat and to be listed by name in the membership list. A separate listing of institutional members will appear in each issue of TUGboat.

Steering Committee meeting

It was decided that the Winter 1983 meeting will be held at Stanford sometime during the spring break, March 18-27.

The following issues were addressed at the Steering Committee meetings:

1) It was decided that up to $1,000 will be contributed to the cost of sending a representative to the next ANSI standards meeting on typesetting.

2) Joey Tuttle of I.P. Sharp has offered to arrange the next meeting.

3) Replacements are needed on the Steering Committee for Robert Morris and Richard Zippel, who are inactive.

4) Monte Nichols has resigned from the Finance Committee; a new member at large should be sought. The Finance Committee currently consists of the Chairman, Secretary, Treasurer, and two other members of the Steering Committee.

5) The closing date for submission to TUGboat was established as six weeks after the preceding TUG general meeting.

6) Fees for advertising in TUGboat were set at $200/page.

7) On December 31 of each year, the price for each back issue of that year's TUGboat will rise to the full membership price for that year.

8) Ray Goucher was directed to handle 1982 institutional memberships retroactively based on our policy for 1983 memberships.

9) The Finance Committee was empowered to take whatever urgent actions are necessary between meetings, with the prime directive to keep TUG out of debt.

Ray Goucher reported that news releases for this meeting appeared in *TypeWorld* and *SIAM News*; several other publications, which generally print announcements of this type, were notified, but their publication deadlines were missed. A news release for the March 1983 meeting will be prepared and distributed in the Fall.

In his Treasurer's report, Sam Whidden expressed TUG's thanks to Donald Knuth for the support he has given TUG. His donated services for the TEX82 Short Course have turned an expected $12,000 deficit into a positive balance. A volunteer willing to teach a similar course at the March meeting will be sought.

The final issue addressed by the Steering Committee in its meetings is a difficult issue and was left unresolved. TUG needs people willing to work not just on TEX, but also on the bread-and-butter problems of organization, finance, and technical direction. Without the involvement of new members in the more pragmatic facets of TUG, the organization cannot thrive. It is up to the general membership to determine whether TUG as an organization will survive.

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Program, TUG Summer Meeting and TEX82 Short Course
Stanford University, July 25–30, 1982

USERS GROUP MEETING

Business meeting
Ron Whitney – introduction to TEX and TUG
    for new users
Don Knuth – TEX82
TEX82 Q & A
Don Knuth – the WEB system of
    structured documentation
Arthur Keller – tutorial for beginning TEX users
    (2 sessions)
Barbara Beeton – TEX problems help session
Site Coordinators – introduction and
    birds-of-a-feather sessions:
        DEC 10/DEC 20 (Barry Doherty)
        IBM 370 (Susan Plass)
        small architectures (Lance Carnes)
        Univac (Bill Kelly)
        VAX/UNIX (Cal Jackson)
        VAX/VMS (Monte Nichols)
Output device manufacturers' representatives –
    introduction and consultation
        Florida Data (Bob Booher, Frank Price)
        Hewlett-Packard (Jim Crumly, Tom Old)
        Imagen (Les Earnest, Jan Stoeckenius)
        Symbolics (Jane Durrant, Larry Hambly,
            Marc LeBrun)
TEX82 and WEB user experiences
Macro tutorial for intermediate TEX users
David Fuchs – output devices and drivers
Lynne Price – macro wizards roundtable
Don Knuth – demonstration of TEX82

SHORT COURSE – INTRODUCTION TO TEX82
Reading WEB programs
Representation of strings
Data structures for boxes and glue
Representation of control sequences
Syntactic routines (TEX's eyes and mouth)
Semantic routines (TEX's stomach and intestines)
Breaking paragraphs into lines
Hyphenation
Scanning file names
Input of font metric (TFM) files
Output of device-independent (DVI) files
Initializing a TEX production program

All twelve lectures of the Short Course were videotaped, and the tapes will be made available by TUG for rental or purchase; details can be obtained from Ray Goucher, c/o American Mathematical Society, P. O. Box 6248, Providence, RI 02940, (401) 272-9500.

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Attendees, TUG Summer Meeting and TEX82 Short Course
Stanford University, July 25–30, 1982

In the following list, names of persons attending only the meeting are not specially marked; attendees at only the Short Course are starred; attendees at both the meeting and Short Course are flagged by a †.

  Abramson, Fred – Signetics Corp.
† Arnson, William – McGraw-Hill, Inc.
* Atkinson, Michael – Science Center, Rockwell
    International
† Beeman, Roger – Boeing Aerospace Company
† Beeton, Barbara – American Mathematical Society
† Berkowitz, Marc – Adapt, Inc.
† Berry, Paul – I. P. Sharp Associates, Inc.
  Besset, Didier – Physics Department, Stanford
    University
*Blair, John – CALMA
  Blanford, Mark – Sandia National Laboratories
† Bollack, Ed – Information Handling Services
† Boyce, Jim – Hewlett-Packard Co.
† Brotsky, Daniel C.
† Brown, Heather – The University Of Kent,
    Canterbury
  Brown, Malcolm – Center For Information
    Technology, Stanford University
† Buckle, Normand – Université du Québec, Montréal
  Carnes, Lance
† Chaffee, Roger – Linear Accelerator Center,
    Stanford University
† Cherry, George – Language Automation Associates
  Clark, Debbie – Intergraph
† Clouthier, Pierre – Computer Output Services
    Information, Inc.
† Cole, Michael – Washington State University
† Crawford, Dona – Sandia National Laboratories
† Crumly, Jim – Hewlett-Packard Co.

† Cusso, Clint – Hewlett-Packard Co.
† Doherty, Barry – American Mathematical Society
† Doyle, Peter G. – Dartmouth College
† Dupree, Charles – Digital Equipment Corp.
  Eastman, Pat – Cadtec
  Ellis, Wade – The Computer Tutors
† Elsell, Anders – Royal Institute Of Technology, Stockholm
  Felippa, Carlos – Lockheed Palo Alto Research Lab
  Ferguson, Michael – Université du Québec, Montréal
  Ferris, Barry – Science Applications, Inc.
  Fina, Pat – Massachusetts Institute of Technology
* Fisher, Glen – The Code Works
  Foata, Dominique – Université de Strasbourg
  Fuchs, Abe
† Fuchs, David – Department of Computer Science, Stanford University
† Gabelnick, Stephen – Argonne National Laboratory
† Gaskins, Robert – Bell-Northern Research, Inc.
  Graham, Ron – American Mathematical Society
  Grim, Daniel – University of Delaware
† Grosso, Paul – University of Michigan
† Guenther, Dean – Washington State University
  Hage, Carl – Signetics Corp.
† Hallin, Mary Elizabeth – Bell-Northern Research, Inc.
* Harris, Kent – Consultant
† Hauck, Roger – Smithsonian Institution
  Hickey, Thomas – Online Computer Library Center
† Holsinger, Gregory – McGraw-Hill, Inc.
  Hsia, Doris – Computer Systems Laboratory, Stanford University
  Huang, Edith – California Insitute of Technology
† Hurley, Peter – Hewlett-Packard Co., Berkshire, England
† Hutchinson, George – National Institutes of Health
† Ion, Patrick – Mathematical Reviews, American Mathematical Society
† Jackson, Calvin – California Institute of Technology
  Janson, Barbara – American Mathematical Society
  Jeffries, Ron – The Code Works
  Jespersen, Dennis – Informatics General Corp.
† Jones, Roger – Science Typographers, Inc.
† Kado, Don – Information Handling Services
  Kanerva, Dianne – Department of Computer Science, Stanford University
† Keller, Arthur – Department of Computer Science, Stanford University
† Kellerman, Dave – Oregon Software
† Kelly, William – University of Wisconsin at Madison
† Knuth, Don – Department of Computer Science, Stanford University
  Kockinos, Constantin
† Kröger, Heinz – Zentralblatt für Mathematik, Berlin
  Lamport, Leslie – SRI International
  Larson, Richard – University of Illinois at Chicago Circle
  Leino, Arthur – Linear Accelerator Center, Stanford University
  Lodi, Ed – West Valley College & Computer Tutors
  MacKay, Pierre – University of Washington
† Mansell, Alana – Information Handling Services
  McGilton, Henry
  Mohr, August
  Mooney, Jim – West Virginia University

  Moffat, Shannon – Center for Information Technology, Stanford University
† Moortgat, Hugo – University of Santa Clara
† Naugle, Norman – Texas A&M University
† Nodera, Takashi – Keio University, Yokohama
† O'Connor, George – Hewlett-Packard Co.
  Old, Tom – Hewlett-Packard Co.
† Osmond, Carolyn – Information Handling Services
† Penny, Keith – Nuclear Division, Union Carbide
* Pettinicchio, Frank – McGill University
† Peuto, Bernard – View Tech, Inc.
† Plass, Susan – Center for Information Technology, Stanford University
* Ramshaw, Lyle – Xerox Palo Alto Research Center
  Reisor, Ronald – University of Delaware
  Robbins, Jeffrey – Springer-Verlag New York, Inc.
  Rodgers, David – University of Michigan
  Roth, David – Bell-Northern Research, Inc.
  Roudabush, Glenn – CTB/McGraw-Hill, Inc.
† Roy, Richard – Stanford University/ESL, Inc.
† Ruggles, Lynn – University of Massachusetts, Amherst
† Samuel, Arthur – Department of Computer Science, Stanford University
  Sandelin, Jon – Center for Information Technology, Stanford University
  Savitzky, Steve – Zilog
† Schildt, Barbara – Cadtec
  Schneble, Jack – McGraw-Hill, Inc.
† Senn, Mark – Purdue University
  Seropian, Hasmig – Zilog
  Shepherd, Gary – Sandia National Laboratories
† Spivak, Michael
  Spragens, Alan – Linear Accelerator Center, Stanford University
  Spurlock, Arlene – Lawrence Berkeley Laboratory, University of California
* Stoeckenius, Jan – Imagen Corp.
  Sterken, Jim – University of Michigan
† Tenney, Glenn – Fantasia Systems, Inc.
† Thedford, Rilla – Mathematical Reviews, American Mathematical Society
  Thomas, Arthur – ADAC Laboratories
* Thomas, Joe – Datalogics, Inc.
  Thomas, Margaret – Science Applications, Inc.
† Tobin, Richard – Online Computer Library Center
  Tomandl, Daniel – University of Washington
† Trabb-Pardo, Luis – Department of Computer Science, Stanford University
  Tuttle, Joey – I. P. Sharp Associates, Inc.
  Van Camp, Warren – Informatics General Corp.
  VanVoorhis, Sandra – Data Composition
  Villere, Gary – Informatics General Corp.
† Vitanye, David – Handar Associates
  Wakabayashi, Nobuo – Otaru University of Commerce, Hokkaido, Japan
† Walker, Gordon – American Mathematical Society
  Wendel, Whit – Addison-Wesley
  Whartman, Yoni – Ben-Zvi Printing Enterprises
  Whidden, Sam – American Mathematical Society
† Whitney, Ron – American Mathematical Society
  Wong, Henry – Signetics Corp.
† Woodsmall, Roger L. – Intergraph Corp.

† Woolf, Bill – Mathematical Reviews, American Mathematical Society

* Wu, Sheau-Huei – Datalogics, Inc.

Wulff, Robert – QUBIX

* Yugin, John – Scan Laser Printing Ltd.

† Zabala, Ignacio – Department of Computer Science, Stanford University

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AN INFORMATION INTERCHANGE FORMAT FOR TEX FILES

Pierre A. MacKay

University of Washington

In an earlier issue of this journal, there was reported a proposal made by Patrick Milligan for an information interchange standard for TeX files. I remember that there were several very strong points in that proposal, but I do not have it before me now and I will probably be repeating some parts of it unconsciously. I do remember noting at the time, however, that it was in part a proposal for a tape file information interchange standard and yet made no reference to *American National Standard X3.27-1978*, "magnetic tape labels for information interchange." Since it was clear at the July 1982 TUG meeting that the problem of mutually compatible tape file formats is still very much with us, I would like to refine Patrick Milligan's suggestions by proposing that, rather than attempting to define our own unique information interchange standard, we adopt and promote the use of the ANSI standard, which has already been adopted as a Federal Information Processing Standard (see FIPS publication No. 79. 1980, October 17. U. S. Department of Commerce. National Bureau of Standards).

The name of this standard is perhaps a bit misleading in that it might suggest a concern with only the text of ANSI standard tape labels— fixed-length 80-character records containing ASCII decimal numeric and upper-case alphabetic characters. At higher levels of implementation, however, the use of these labels imposes a certain discipline in file and record format, with the result that a reference to the upper levels of implementation is, in effect, a sufficient description of a standardized file format for character files and requires little more than the agreement to convert all binary files into BigEndian hexadecimal character notation to serve as an all-purpose information interchange convention for users of TeX.

The various levels of implementation of the magnetic tape label standard are described in *ANSI X3.27-1978*, Appendix A: "Levels of Systems," and most particularly in section A3: "Distinguishing characteristics of levels of labelling." This section is meant to serve as a guide for the thorough integration of tape label processing into the basic operating system, but it can also serve as the outline for a user-level utility program if nothing better is possible. I confess to a certain missionary zeal to convert a wider range of installations toward the provision of level 3 capacities as part of the standard operating system, in the manner, for instance, of the VAX/VMS operating system, where Systems level 3 label processing is the default for all character files. I am sadly aware, however, that this conversion will take time, and that many users will have to bargain for utility programs to supplement the present inadequacies of tape label processing as they are found on most systems. It would be no small service to computing if the TeX Users Group were to contribute to the wider acceptance and use of the most effective ANSI standards. (Incidentally, the ISO standard for magnetic tape labels is virtually identical with the ANSI standard.)

For a full understanding of the content of all labels used in a Systems level 3 tape label processing utility there is no substitute for a reference to the ANSI standard itself, which can be purchased (prepaid only, and not exactly cheap) from the American National Standards Institute, 1430 Broadway, New York, N.Y. 10018. The details of special interest for TeX users are that Systems level 3 should provide

File formats:	Single file single volume, Single file multivolume, Multifile single volume, Multifile multivolume.
Labels:	VOL1 HDR1 HDR2 EOV1 EOV2 EOF1 EOF2 (Full analysis and decoding of all required fields.)
Record formats:	Fixed-length or variable-length records (A prefixed fixed-length character count field is assumed for all variable-length records. Special terminator codes are never used.)

Any Systems level 3 operation ought also to allow for the inclusion in the prescribed order of user volume labels (UVL1 through UVL9) and user header labels (HDR3 through HDR9) together with the answering EOV and EOF labels. The standard does not require that anything be done with such labels, but it is highly desirable that a tape label processing system be able to read and bypass them. A truly courteous operating system will provide a buffer from which the user can retrieve information contained in these extra-standard labels.