the far-reaching consequences of the present chance and to actively pursue the project of approaching SGML from TEX. I suggest an active approach to SGML to the TEX Implementors Community, i.e. those colleagues who actively participate in TEX implementation, adaptation, and development.

### Suggestions

### § 4 TeX-based Implementation

Rather than following the official approach of using a parser, the first concern should be to implement a TEX format which is capable of interpreting one of the general SGML Document Type Definitions (DTD).

# § 5 Backing

This suggestion is based on the assumption that TEX might be a well-suited implementation language. First implementation experiments seem to be encouraging.

### § 6 Possible Steps

The project might advance in the following steps:

- 1. Implement interpretation of a general DTD.
- 2. Implement document structure validation.
- 3. Implement definition syntax of SGML.

### § 7 LATEX

If the first step could be completed successfully, the SGML general DTD might be offered either as the future IATEX user interface or as an additional one.

### Benefits

### § 8 Savings

The following benefits are anticipated:

- 1. Elimination of unneccessary parsing software if not required;
- 2. Elimination of unneccessary parse processing if not required.

#### § 9 Standardization

SGML processing could inherit most of the advantages of TEX itself, especially

- 1. vendor independence;
- 2. portability of the software;

All this could help to avoid a split of user worlds between SGML and  $T_EX$ .

[WM92] Reinhard Wonneberger and Frank Mittelbach. SGML. Questions and answers. *TUG-boat* 13(2):221 (July 1992).

Reinhard Wonneberger
 EDS Electronic Data Systems
 (Deutschland) GmbH
 Eisenstraße 56 (N15)
 D-6090 Rüsselsheim
 Federal Republic of Germany
 wonneberger @
 mzdmza.zdv.uni-mainz.de

# **Abstracts**

# Les Cahiers GUTenberg Contents of Recent Issues

### Numéro 12 - Décembre 1991

B. Gaulle, Éditorial : à propos d'erratum; pp. 1-2

The President of Gutenberg remarks on the success of the special issues of the Cahiers (the proceedings of EuroTEX and GUTenberg'91 and "Premiers pas en IATEX") and corrects some misconceptions regarding the use of TEX, SGML, typographic style, and TEX in Europe.

E. GÖPELT & B. SCHMID, WYSIWYG-TEX-editors on the basis of object-oriented system technology; pp. 3-12

This paper describes the motivation for and planned implementation of a WYSIWYG editor for the COMPINDAS (Computerized Integrated Data Base Production System) of FIZ Karlsruhe.

Michael Spivak, LAMS-TEX: A Public Domain Document Preparation System Extended AMS-TEX; pp. 13-20

LAMS-TEX provides three basic extensions to  $\mathcal{A}_{\mathcal{M}}\mathcal{S}$ -TEX:

- (1) As the 'L' in the name implies, IAMS-TEX provides the functionality of IATEX, including (a) automatic numbering, together with symbolic labelling and cross-referencing, for equation numbers, lists, chapter and section headings, figure captions, theorems, lemmas, etc., etc.; (b) automatic placement of floating figures; (c) automatic table of contents generation and tools for creating an index; (d) literal mode; and (e) bibliographies (including interfacing with BIBTEX, if desired). However the approach is rather different, with syntax that is generally much more concise, and designed to provide the user with much greater flexibility.
- (2) There are special macros, and extra fonts, for easily producing complicated commutative diagrams; the results are at least as good as those found in any professional books and journals. There are also special macros for partitioned matrices and "bordered matrices".
- (3) Finally, extensive table macros provide all the special refinements expected from professional typesetters.

Pierre Mackay, Un regard sur les pixels. Obtention de fontes de qualité pour imprimantes à laser à 300 dpi grâce à METAFONT; pp. 21–35

Two otherwise identical documents printed at the industry quasi-standard medium resolution of 300 dots/inch on laser printers can appear very different depending on whether a "write-black" or a "write-white" engine was used to print them. Most font-design and font expression systems appear to favor "write-black" technology, and there is some reason to suspect that "write-white" will never be entirely satisfactory. In any case, it is a good idea for the designer who expects to see a great deal of 300 dots/inch output to be aware of the difficulties involved in trying to support both technologies with the same design.

[Editor's note: This paper is a french translation of "Looking at the Pixels. Quality Control for 300 dpi Laser Printer Fonts, Especially METAFONTs" in Raster Imaging and Digital Typography II (R. MORRIS & J. André eds.), Cambridge University Press, 1991, 205–217.]

Disquettes Euro-OzTEX available from Association GUTenberg; Adaptation française: Yannis Haralambous; p. 36

Michel Goossens and Eric van Herwijnen, Introduction á SGML, DSSSL et SPDL; pp. 37–56

This article provides an introduction to ISO Standard 8879 SGML, the "Standard Generalized Markup Language" and discusses its relation with two other standards being drafted in the area of electronic document description, DSSSL for the page layout and SPDL for the visual presentation.

Jacques André and Philippe Louarn, Notes en bas de pages : comment les faire en LATEX?; pp. 57–70

Some facilities with IATEX's footnotes are exhibited, such as how to call footnotes from tabular array or how to refer the same note from different places.

Alexander Samarin and Anatoliy Urvantsev, CyrTUG, le monde TEX en cyrillique; pp. 71–73

This article presents an overview of publishing in the (former) USSR, how TEX fits into this environment, and a report on the CyrTUG organization, its structure and goals.

[Editor's note: This report was originally presented at EuroTeX'91.]

Hanna Kołodziejska, TeX en Pologne; pp. 74-77

This is a report on the history and current use of TEX in Poland, including commercial activities a characterization of the user population.

[Editor's note: This report was originally presented at EuroTEX'91 under the title TEX in Poland.]

Jacques André *et alii*, Lu, vu, ou entendu; pp. 78–83

Short takes on varied topics, with bibliographic information on recent books and other publications: orthography reform; typography; periodicals; publications prepared with, or about (IA) TEX; conferences.

Table des matières de 1991; pp. 84-85

# Baskerville Contents of Recent Issues

# Volume 2, Number 1, March 1992

Philip Taylor, Colophon; Editorial; p. 1

The editor of this, the second issue of The Annals of the UK TEX Users' Group, describes its production, and relates how he has handled articles that were received during the extended lapse between the premier issue and the present one.

Peter Abbott, Chairman's Report; pp. 1–2

The present Chairman of the UK TEX Users' Group recounts what has happened in the U.K. TEX world since the first issue of *Baskerville* appeared, and directs some words of encouragement to the readers, announcing the editor of the next issue, Sue Brooks.

Malcolm Clark, TUG in Europe and Amerika; pp. 2–7

The present president of TUG and former chairman of the UK TEX Users' Group gives an account of "the range of 'organised' TEX related activities in the world, mainly concentrating on the known national and language groups." The groups reviewed are those representing the Germanspeaking, Japanese, French-speaking, Nordic, and Dutch-speaking TEX users groups and those in the United Kingdom, Czechoslovakia, Hungary, Poland, Jugoslavia, Soviet Union, Mexico, and Ireland. This

is followed by remarks on common themes which recur throughout all the groups.

The final section of the article deals with the recent history of TUG and TEX, in particular the upheaval which resulted in Malcolm's selection as interim president of TUG, and with his view of the future.

This paper was originally presented at the February 1991 Dante meeting in Vienna.

Malcolm Clark, The Outgoing Chairman's Report; pp. 7–10

This review opens with the statement "The group's second year can be summarised in a very similar way to the first—'a measure of success, leavened with a few disappointments'." A summary of the year's activities begins with short descriptions of the meetings: a very wide range of topics was covered, at one-day meetings that are relatively easy to attend owing to the compact geographical area involved. Various other services are reviewed, both those specific to the group and some offered jointly with other groups. The article ends with comments on the future and some personal observations.

Chris Rowley, Gleanings Past and Present; p. 10

This short article delves into the first issue of *TUGboat* to recover some of Knuth's thoughts on TEX's user interface. It then relates some comments made on and offstage at a recent Monotype Conference in London.

Chris Rowley and Frank Mittelbach, The LATEX3 Project; pp. 10-11

This is the text of a proposal to the TUG Board of Directors for support of the IATEX3 project.

[Editor's note: A slightly modified version appeared in TFX and TUG News, Vol. 1, No. 1.]

Chris Rowley, The 1990 A.G.M.; pp. 11-12

The official report of the Annual General Meeting of the UK TEX Users Group, held at Aston University on Wednesday, 17 October 1990.

Chris Rowley, The 1991 A.G.M.; p. 12

The official report of the Annual General Meeting of the UK TEX Users Group, held at Aston University on Wednesday, 17 October 1991.

Philip Taylor, Postscript; p. 12

Final comments on production of the issue, plus the editor's best wishes to Sue Brooks, who assumes the editorship with the next issue.

# **Late-Breaking News**

### **Production Notes**

Barbara Beeton

## Input and input processing

Electronic input for articles in this issue was received by mail, on diskette, and was also retrieved from remote sites by anonymous ftp. In addition to text, the input to this issue includes METAFONT source code and several encapsulated PostScript files. For one article, which was based on an extended implementation of TEX, several illustrations were received on paper to be pasted in (see the "output" section). Most articles as received were fully tagged for TUGboat, using either the plain-based or IATEX conventions described in the Authors' Guide (see TUGboat 10, no. 3, pages 378-385). Several authors requested copies of the macros (which we were happy to provide); however, the macros have also been installed at labrea.stanford.edu and other good archives, and an author retrieving them from an archive will most likely get faster service. Of course, the TUG office will provide copies of the macros on diskette to authors who have no electronic access.

Font work was required for the article by salomon on arrows (p. 146).

The article by Rahtz and Barroca incorporates several (encapsulated) PostScript images, and was also most reliably processed using the New Font Selection Scheme; camera copy for this article only was output on the Math Society's Compugraphic 9600 Imagesetter.

About 50% of articles and 60% of the pages in this issue were prepared using IATEX.

In organizing the issue, attention was given to grouping bunches of plain or IATEX articles, to yield the smallest number of separate typesetter runs, and the least amount of handwork pasting together partial pages. This also affected the articles written or tagged by the staff, as the conventions of tugboat.sty or ltugboat.sty would be chosen depending on what conventions were used in the preceding and following articles; no article was changed from one to the other, however, regardless of convenience.

Test runs of articles were made separately and in groups to determine the arrangement and page numbers (to satisfy any possible cross references). A file containing all starting page numbers, needed