can't do $X'$. In every case, you can do $X$ often more easily than you can in plain. But it is not documented anywhere. Our office staff mostly use plain \TeX because they find the \LaTeX{} book so uninformative. As difficult as they find The \TeX{}book, they feel they can eventually get the information out of it, but it just isn't there in the \LaTeX{} manual. Of all its deficiencies, the worst is the paucity of examples. The situation is somewhat better in French and German, and one of our secretaries makes good use of Raymond Seroul's book, *Le petit Livre de \TeX* [InterEditions, 1989, ISBN 2-7296-0233-X]. A somewhat expanded version, by Raymond Seroul and Silvio Levy, has now appeared in English: *A Beginner's Book of \TeX* [Springer Verlag, 1991, ISBN 0-387-97562-4]. Leaving all other considerations aside, I consider \LaTeX{} far superior to plain because it encourages you to think of a document in logical, not page layout terms. The criticisms of the diagram mode and \put above are precisely because they are such a departure from that ideal. Lamport actually suggests laying your diagrams out on graph paper before entering them. This is absurd. I have coauthored two books using \TeX{} and they each include several hundred diagrams.

**Conclusions**

I have successfully used \TeX{} for books, papers and even routine letters. I find it much easier to use than the standard text processors. Nonetheless, I find it has some deficiencies. Since Knuth has decided that \TeX{} will remain static, the time has come to think of a possible successor. I have set out above some of the possible directions in which change might come. Some of them might be done by a few modifications to the language that would leave the dvi output format unchanged. These could be accomplished by modifications to the underlying language, but would leave all device drivers and previewers current. However, some of the changes would require new device drivers which would render many of our auxiliary tools obsolete.

When \TeX{} was written the computing power available to the average user was much less. Freed from such limitations, we can now hope for a language that is a lot more powerful and easier to use. I hope to see a successor to \TeX{} that is worthy of its predecessor.

Since the first draft of this paper was written, there has been a new development. A formal network, called NTS-L ("New Typesetting System List") has been set up to discuss the question of a successor to \TeX{}. All issues are up for discussion. Should this new language be an incremental improvement to \TeX{} or a new beginning? Should it be upward compatible? Should it be aimed at microcomputers or only for workstations and larger? Even, should it make a pass at being WYSIWYG? The debate is wide-ranging and sometimes heated. Anyone interested should subscribe. Send email to listserv@vm.urz.uni-heidelberg.de with a one line message subscribe nts-l (Your Name Here).

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**Approaching SGML from \TeX**

Reinhard Wonneberger

**Abstract**

The present memorandum intends to encourage discussion on a pragmatic \TeX{} approach to SGML. It assumes a basic knowledge about SGML and builds on [WM92], which also contains bibliographic information.

Comments and contributions are welcome.

**Situation**

§ 1 *Concern*  
Although \TeX{} has become a de facto standard by now, the corresponding General Markup language \LaTeX{} cannot claim to be a standard. This implies severe limitations in using \TeX{} outside the academic world.

Such limitations might be overcome by combining \TeX{} with an accepted General Markup standard, which seems to be SGML.

§ 2 *καιρός* (time of opportunity)  
The present development project of a new \LaTeX{} gives the unique chance to introduce a new Markup Language instead of staying frozen in upward compatibility.

§ 3 *Conclusion*  
The community of \TeX{} users, esp. the implementors and other wizards, are encouraged to think about

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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 \LaTeX user interface or as an additional one.

Benefits

§ 8 Savings
The following benefits are anticipated:
1. Elimination of unnecessary parsing software if not required;
2. Elimination of unnecessary 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 \TeX.


\textbf{Abstracts}

\textit{Les Cahiers GUTenberg}\n
\textbf{Contents of Recent Issues}\n
\textbf{Numéro 12 - Décembre 1991}\n
B. GAULLE, Éditeur : à propos d’erreur; pp. 1–2

The President of Gutenberg remarks on the success of the special issues of the Cahiers (the proceedings of Euro\TeX and GUTenberg’91 and “Premiers pas en IM\TeX”) 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 \LaMS-\TeX; pp. 13–20

\LaMS-\TeX provides three basic extensions to \LaMS-\TeX:

1. As the ‘L’ in the name implies, \LaMS-\TeX provides the functionality of IM\TeX, 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 BIB\TeX, 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.