Abstracts

Les Cahiers GUTenberg
**Contents of Issue 31 (December 1998)
and Issue 32 (May 1999)**

Issue 31

This issue of the *Cahiers* was set in *Apolline*, by Jean-François Porchez. For more information about font variations across the *Cahiers* series, see the end of this column.

JACQUES ANDRÉ, Éditorial; pp. 3–4

The editor begins by stating that each issue of the *Cahiers* has its own look. That of the current one has been affected by the following keywords: "Delay", "Regular" [i.e., non-thematic], "Corrections", and "Technique". Each factor is then examined in turn, with each benefitting from Jacques' characteristic wry humour.

It should be noted that the article by Esperet and Girou is complemented by an article by André and Girou which appeared in *TUGboat* 20,1 (1999), pages 8–14.

PHILIPPE ESPERET and DENIS GIROU,
Coloriage du pavage dit "de Truchet" [Coloring of "Truchet tiles"]; pp. 5–18

Three years ago, an algorithmic problem on tiling of a plane was set as a contest puzzle. After presenting various aspects to the puzzle, we give the main answers received. The winner was Rouben Ter Minassian. [Author's abstract]

The abstract does not allude to the fact that there are a good number of colour images of various Truchet 'tiles' included! Solutions showing three different approaches are provided: one based on PostScript, one on META-POST, and one using PSTricks. As with all articles in the *Cahiers*, this one can be had as a downloadable file from the GUTenberg website (see new address at the end of this column).

DENIS ROEGEL, Anatomie d'une macro [Anatomy of a macro]; pp. 19–27

This article provides a detailed explanation of a macro to calculate prime numbers. It also provides us with an opportunity to highlight some lesser-known TEXnical concepts. [Author's abstract]

While the explanations may be in French, the macro in its entirety is just a collection of the same old English control sequences we've all come to ... look sideways at ... as we move along to something else ...;-)). The blow-by-blow account of what's happening is what makes this particular presentation quite interesting ...

DANIEL TAUPIN, `ltx2rtf` : envoi de documents LATEX aux usagers de Word [`ltx2rtf`: sending LATEX documents to Word users]; pp. 28–37

The `ltx2rtf` compiler translates LATEX source files into RTF, a format available in many text editors, notably Microsoft Word. Originally written by Fernando Dorner and Andreas Granzer, students in Vienna (Austria), the initial version can be found on CTAN under the name `latex2rtf`. During the period 1997–98, we corrected and adapted the original version to run with LATEX 2ε, under the name `ltx2rtf`. The distribution is mainly intended for use under MS-DOS Win95 and Win 3.11, but the program, written in standard C, can be compiled on any UNIX system with a CGG compiler.
[Author's abstract, with corrections]

The author's conclusion is worth noting:

> Just as it is not the purpose of dvips to allow compositors to replace LATEX with PostScript, `ltx2rtf` is not intended to have people abandon LATEX in favour of Word. Its sole purpose is to facilitate the transmission of properly formatted documents to people whose only viewing and/or printing tools are those provided by Microsoft. By doing so, it greatly expands the potential group of recipients of files originating in LATEX.

SOPHIE BRISSAUD, La lecture angoissée ou la mort du correcteur [Painful reading or, death of the proofreader]; pp. 38–44

This paper was first published at the ATypI conference at Lyons, in October 1998. The author reminds us that proofreading ought to be done only by professionals. She claims that it would be a pity if proofreaders were to disappear.
[Author's abstract]

The article is followed by a response from Jacques André, editor of the *Cahiers*.

JACQUES ANDRÉ, Petite histoire des signes de correction typographique [A brief history of proofreaders' marks]; pp. 45–59

The history of the most important proofreaders' marks is shown. These marks are as old as printing. This fact is a sure indication that typographical quality has always been a major preoccupation of printers and that proofreaders are the genuine guarantors of the written language.
[Author's abstract]

Issue 32:
"Journées GUTenberg 1999", Lyon

The issue includes papers presented at the recent GUTenberg annual meeting, which looked at both the specific and the general issues of TEX usage today. The specific subset of papers on 'TEX and XML' is reserved

for *Cahiers* 33/34, a double issue. The papers outside that set are included here.

This issue was set in *ITC New Baskerville*, with *Gill Sans* for `\sf` and *Letter Gothic* for `\tt`. Of special interest are the sample pages of *SMF Baskerville*, a math font by Yannis Haralambous.

THIERRY BOUCHE, Éditorial : TEX à l'approche du IIIe millénaire : état des lieux et perspectives [Editorial: As we approach the third millennium . . .]; pp. 3–4

The editor muses over the redirection of TEX's efforts from purely paper-based to the ever-expanding electronic permutations for displaying text and math. The articles in the issue are similarly quite broad in range, from beautiful typesetting (books, fonts, screen displays) to ever-improving tools (CDs and packages for French-language materials) to access TEX's capabilities, with a fair-sized detour to the world of musical notation.

As for the more specific focus of TEX and XML, the theme of GUTenberg's annual meeting, readers will find the conference papers in the next *Cahiers*, a double issue (no. 33/34).

YANNIS HARALAMBOUS, Une police mathématique pour la Société mathématique de France : le *SMF Baskerville* [A math font for the French Math Society: SMF Baskerville]; pp. 5–20

The author describes in detail the evolution and design issues involved with creating a math Baskerville to work with the well-known text Baskerville. The introduction moves quickly but surely over what is becoming well-known ground, in terms of what is currently available as fully developed math fonts and current strategies to expand the repertoire of workable and aesthetically acceptable combinations of math and text fonts. The paper then moves through a brief history of the Baskerville font, and provides information on where the various commercial components can be acquired — this is not free-ware! And finally, the details dear to a font designer's heart, including a set of figures to compare a half-page of mathematics published by the Presses Universitaires de France with the same material set in SMF Baskerville, and closing with over 5 pages of Baskerville math, using examples from `testmath.tex`, an AMS test file.

Note: A reminder that another approach, that of combining elements from various fonts to arrive at a workable math font, was described in a recent issue of *TUGboat*. See Thierry Bouche, "Diversity in Math Fonts," *TUGboat* 19,2 (1998), pages 121–135. As well, in the same issue, on pages 176–187, Alan Hoenig described "Alternatives to Computer Modern Mathematics". The number of viable alternatives to the very complete CMR math fonts is rapidly expanding and everyone who works in mathematics typesetting should be heartened by all this activity.

HÀN THẾ THÀNH, Améliorer la typographie de TEX [Improving TEX's typography]; pp. 21–28

This paper describes an attempt to improve TEX's typeset layout in pdfTEX, based on the adjustment of interword spacing after the paragraphs have been broken into lines. Instead of changing only the interword spacing in order to justify text lines, we also slightly expand the fonts on the line as well in order to minimise excessive stretching of the interword spaces. This font expansion is implemented using horizontal scaling in PDF. When such expansion is used conservatively, and by employing appropriate settings for TEX's line-breaking and spacing parameters, this method can improve the appearance of TEX's typeset layout.

[Author's abstract]

This is a translation (by Thierry Bouche) of the original paper, first presented at TUG'98 in Toruń, Poland (August 1998). The article appeared in *TUGboat* 19,3 (1998), pages 284–288, where it was called "Improving TEX's Typeset Layout".

LAURENT GUILLOPÉ, Statique et dynamique de documents mathématiques [Static and dynamic aspects of mathematics documents]; pp. 29–34

Various prototypes intended to examine a set of mathematics criteria are described. Even if none meet the contradictory requirements for this sort of numerical display, definite progress can, nevertheless, be noted.

Keywords: databank, reader, formula, mathematics, PDF, HTML, Internet

[Translation of French résumé]

A translation of the final paragraph of the introduction might help clarify things a little:

> This article is placed in the midst of the general framework of opposition between the static (books) and the dynamic (electronic representations). TEX, as *lingua franca* in the mathematical research community (amongst others) plays a pivotal role. And yet, it rapidly falls away in the face of the contradictory constraints of such displays; it is the resolution of these contradications which interests us here. Initial choices, preferred constraints, these yield quite different results.

JOSÉ GRIMM, Le rapport d'activité de l'Inria [Inria activity reports]; pp. 35–45

This article focusses on production of Inria's activity reports, starting with a collection of some 80 different LATEX documents, and then printed in 9 hardcopy volumes (totally some 2,294 A4-sized pages), translated into HTML via `latex2html` (3,131 web pages). Three document classes are used,

along with three bibliography styles and two perl scripts. [Translation of author's résumé]

Of interest to anyone involved in very large-scale document production from multiple sources, and destined for multiple displays.

FABRICE POPINEAU, fpTEX : teTEX pour Win32 [fpTEX: teTEX for Win32]; pp. 47–61

The article provides an extensive overview of this port of teTEX for Windows machines, providing TEX users — and more particularly, TEX installers — with details on choices and decisions made regarding the development of the fpTEX distribution.

This article is a precursor to the paper which will be presented at TUG99, entitled "fpTEX: A teTEX-based distribution for Windows".

DANIEL FLIPO, Francisation d'un format LATEX : nouveautés [Adapting a LATEX format for French: updates]; pp. 63–70

TEX distributions based on Web2C v.7.x (teTEX for UNIX, fpTEX for Windows, CMacTEX for Mac), in conjunction with the revised mltex.sty package by Bernd Raichle, have considerably simplified the development and use of LATEX formats adapted for French-language applications. This report aims to examine some of the new possibilities.
[Translation of author's résumé]

RENÉ BASTIAN, Figurations et notations de l'objet musical [Musical representation and notation]; pp. 71–90

Instead of giving a 'History of solutions' that composers have chosen to use, regarding musical notation, we will begin by highlighting a few extreme modes of notiation and then examine how some solutions, which appeared reasonable at the time, never got off the ground. This will be followed by a proposal for a grammar of musical exchange, one which might serve as a link between contemporary concerns and the traditional stock of notational symbols. [Translation of author's résumé]

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Articles from *Cahiers* issues can be found in PostScript format at the following site (*note the new address*):

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http://www.gutenberg.eu.org/pub/gut/
    publications/publis.html
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About the *Cahiers*

Font use over the years. The GUTenberg group are currently producing issue 33/34. I've been doing these summaries since issue 12 (!). And in all this time, I have been quite blind to the fact that CMR is not the default font of choice. So, just for the record, here's a list of the main text fonts used in previous issues of the *Cahiers* — just one more reason to find a few copies (now available as downloadable .pdf files from their website) and see what a lot of *Apolline* or *Stone* looks like!

Most issues carry an explicit Colophon but I'd like to thank Jacques André for filling the gaps in this listing.

32	ITC New Baskerville, with Gill Sans for the \sf and Letter Gothic for \tt; several pages of SMF Baskerville
31	Apolline
30	Stone
28/29	CMR
27	Adobe Palatino
26	Adobe Palatino
25	Adobe Minion Multi Master
24	Adobe Palatino
23	CMR
22	Adobe Garamond
21	CMR
20	Mainly Univers, with some parts of Lucida and Omega
19	CMR
1–18	16 of these in Times

Change in website address. Another bit of news: the GUTenberg website has changed (noted in issue no. 31): www.gutenberg.eu.org/pub. Jacques tells me that GUTenberg intends to have all its publications on the website; to date, all of the *Lettres* are there, and the *Cahiers* start with issue no. 14.

[Compiled by Christina Thiele]