

THE ANNALS OF THE UK- $\text{T}_{\text{E}}\text{X}$ USERS' GROUP

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Edited by
Jonathan WEBLEY

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The committee can be contacted at:

uktug-committee@uk.tug.org

1 Editorial

2 Welcome to the revived *Baskerville*. *Baskerville* was for many years the journal of UK-TUG and archived copies are available through our website. **2**
3 The UK-TUG committee has decided to start anew publication of *Baskerville* and I have been co-opted onto the committee as editor. This is the first new issue. Since the purpose of T_EX is to produce “marks on paper” *Baskerville* has been printed and posted out; though the PDF version has been emailed out and is also available on the web. Contact me if you do not wish to receive paper copies of subsequent issues. **4**

The journal is named after a serif typeface designed in 1757 by John Baskerville. Previous issues of *Baskerville* used the Baskerville font but this issue uses the default *Computer Modern* font. **5**

This particular issue is somewhat light in content. The quality of future issues will depend on *you*, the membership of UK-TUG. I do not intend to create all the content myself, and welcome contributions on matters relevant to T_EX or UK-TUG. **6**

I think that a newsletter is central to the well-being of a user group such as ours, and I look forwards to hearing your comments on this issue. **7**

Jonathan Webley
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2 Baskerville Survey

The committee of UK-TUG recently undertook a small online survey with regard to the preferred format for *Baskerville*. There were 34 responses and almost 90% of respondents would prefer to see *Baskerville* in A4 format. Just over half want a printed copy.

There were several favourable comments regarding the return of *Baskerville*. Members of UK-TUG are looking for news about UK-TUG and TUG. They also want technical articles on various topics relating to T_EX and friends, such as on L^AT_EX packages and “how to” articles.

These requests correspond with our vision for *Baskerville* and hopefully we can meet the high standards set by previous editors.

3 Events

3.1 BachoTeX 2009



The Polish TeX Users Group, GUST, have been holding an annual international TeX conference since 1993. These conferences aim to popularize TeX, METAFONT and other TeX related software as well as typography in general.

The XVIIth Conference, BachoTeX 2009, was held at the traditional TeXies' and GUST meeting place, Bachotek near Brodnica, in the north-east of Poland, from 29 April until 3 May 2009 inclusive. The GUST AGM was held during the conference.

The conference aimed to get a glimpse of the future, and the title was:

“TeX: at a turning point, or at the crossroads?”

Bogusław Jackowski is chairman of the Program Committee which can be contacted at:

papers-2009@gust.org.pl

The conference website is:

www.gust.org.pl/BachoTeX/2009

3.2 Call for TeX Pearls

GUST, the organisers of BachoTeX, is seeking to continue the tradition of “The Pearls of TeX Programming”. Briefly, Pearls are

- short and generic TeX, METAFONT or METAPOST macros
- code snippets that are easy to explain and preferably not obvious
- sometimes obscure oddities, exhibiting weird TeX behaviour – dirty and risky tricks and traps are also welcome
- not necessarily useful or serious

Pearls are collected throughout the year by Paweł Jackowski, contact:

pearls@gust.org.pl

Further details, and the collection of pearls, can be found at:

www.gust.org.pl/projects/pearls

3.3 Mathematics and Fiction

| *b s h m* |

The British Society for the History of Mathematics is hosting a workshop on the relationship between mathematics and fiction on 30 and 31 May 2009 at Rewley House, Oxford. The workshop will include readings and interviews with writers, talks about the uses of mathematics in fiction, and opportunities for discussion and debate.

One of the contributors is Donald Knuth, the creator of TeX. He is Professor Emeritus of the Art of Computer Programming at Stanford University and author of the seminal multi-volume work “The Art of Computer Programming”. Knuth will be talking about his novel “Surreal Numbers”, published in 1974 and still available on Amazon.

The workshop is organised by

- Tony Mann (A.Mann@gre.ac.uk)
- Noel-Ann Bradshaw (N.Bradshaw@gre.ac.uk)
- Raymond Flood (Raymond.Flood@conted.ox.ac.uk)

Further details of the workshop can be found at:

www.bshom.org/meetings/Fiction.html

3.4 EuroTeX 2009

EuroTeX 2009 takes place this year in the Hague, the Netherlands, on 31 August through 4 September 2009, and the conference will focus on educational uses of TeX, such as manuals, presentations and teaching materials. The conference will be in English.

The fee for UK-TUG members is €350, which includes everything except the excursion day (which costs €75). In particular it includes accommodation and meals.

The official website is:

www.ntg.nl/EuroTeX2009

3.5 TUG 2009

TUG 2009 will take place in Notre Dame, Indiana, from 28 to 31 July. This three-day conference focuses on practical techniques for document



production using L^AT_EX, T_EX, ConTeXt, METAPOST and friends.

For the registration form, maps, the proposals already accepted, and more see:

tug.org/tug2009

April had several deadlines related to the conference:

- 13 April 2009: This is the deadline for abstract submissions; the call for papers is at:

tug.org/tug2009/cfp.html

Although proposals may be accepted after the deadline, of course potential attendees would like to know what they'll be seeing. So if you'd like to give a talk, please try to submit an abstract by the 13th.

- 17 April 2009: This is the deadline for bursary applications; for information and the application form see:

tug.org/bursary

No late applications will be accepted.

- 27 April 2009: This is the deadline for the early bird registration discount. After this date, the registration fee will be increased. Register for the conference through Notre Dame's website via this link:

tug.org/tug2009/register.html

3.6 UKUUG Summer Conference 2009

UKUUG is the UK's Unix and Open Systems User Group. Their summer conference will be from Friday 7 August to Sunday 9 August 2009, at the Birmingham Conservatoire (School of Music) near the city centre. For further details see:



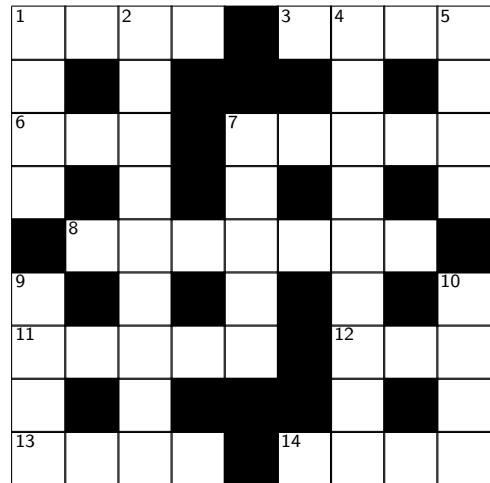
ukuug.org/events/summer2009

One of the streams will be a half day training session on *T_EX and typesetting*.

4 The Hound

Jonathan Webley

This is a somewhat easy, cryptic crossword and the solution can be found at the end of this issue.



Across

- 1 In Africa, see a container. (4)
- 3 These tools are a product of bad laws. (4)
- 6 Misuse this girl. (3)
- 7 These weeds for veg. (5)
- 8 On this ship, the wicked queen mates. (7)
- 11 Pawnbroker is unclean, almost. (5)
- 12 Mineral found in store? (3)
- 13 Poor deals are without a toboggan. (4)
- 14 Idea came from me, twice. (4)

Down

- 1 In the discus, perhaps, achieve one's peak. (4)
- 2 It's a sight, the centilitres in awful cat's pee. (9)
- 4 Beg and owe with one, sadly together we looked dismal. (9)
- 5 Kent's editor knows the issue. (4)
- 7 Hades loses a ghost. (5)
- 9 These insects cause errors. (4)
- 10 Sounds like I hear when present. (4)

5 Currency Symbols in L^AT_EX

Jonathan Webley

5.1 The Dollar and the Pound

Standard keyboards contain the dollar sign (\$), which, of course, is a special symbol in T_EX, so needs to be prefaced with a backslash or oblique: `\$`. This symbol works properly in both text mode and math mode.

Keyboards also have a pound sign (£), the use of which requires the package `inputenc`. Additionally, there is a standard command `\pounds`, which renders as £. This command works properly in both text mode and math mode.

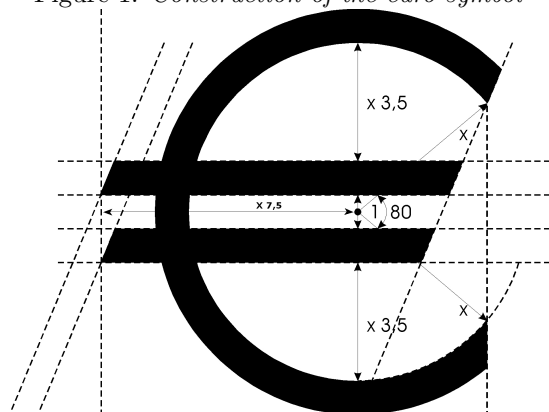
Additionally, standard L^AT_EX contains two commands for these signs:

`\textdollar` which renders as \$, and
`\textsterling` which renders as £.

5.2 The Euro

The European Commission specified a euro logo with exact proportions and colours. Whilst the Commission intended the logo to be a prescribed glyph shape, many font designers created their own variants.

Figure 1: *Construction of the euro symbol*



According to the European Commission:

“Inspiration for the € symbol itself came from the Greek epsilon (ε) – a reference to the cradle of European civilisation –

and the first letter of the word Europe, crossed by two parallel lines to ‘certify’ the stability of the euro.”

An approximation to the euro symbol can be created on a typewriter by typing a capital “C”, backspacing and overstriking it with the equal (“=”) sign.

On many computers the euro symbol can be obtained with the `<ctrl>+<alt>+e` keystrokes.

In L^AT_EX the euro has its own package, `eurosym`, which contains these commands:

Symbol	L ^A T _E X
€	<code>\geneuro</code>
€	<code>\geneuronarrow</code>
€	<code>\geneuowide</code>
€	<code>\officialeguro</code>

All of these symbols are generated using the “C” character of the current body font. The package also contains the command `\euro` which maps to `\officialeguro` but can be altered using a package option.

5.3 And the rest of the World

The `textcomp` package includes these symbols:

Symbol Name	L ^A T _E X Used in
฿ baht	<code>\textbaht</code> Thailand (THB)
¢ cent	<code>\textcent</code> US, Canada
¢ cent, old style	<code>\textcentoldstyle</code>
₡ colón cedi	<code>\textcolonmonetary</code> Costa Rica (CRC), El Salvador (SVC), Ghana (GHS)
¤	<code>\textcurrency</code> generic currency sign, it is a character used to denote a currency when the symbol for that currency is unavailable

Symbol Name	L ^A T _E X Used in
\$ escudo ¹	<code>\textdollaroldstyle</code> formerly Portugal (PTE), Cape Verde (CVE)
₫ dong	<code>\textdong</code> Vietnam (VND)
€ euro	<code>\texteuro</code> Eurozone (EUR)
f florin or guilder	<code>\textflorin</code> Aruba (AWG), Netherlands Antilles (ANG)
₲ guarani	<code>\textguarani</code> Paraguay (PYG)
₣ lira	<code>\textlira</code> formerly Italy (ITL) and others
₦ naira	<code>\textnaira</code> Nigeria (NGN)
₱ peso	<code>\textpeso</code> Philippines (PHP)
₩ won	<code>\textwon</code> South Korea (KRW), North Korea (KPW)
¥ yen yuan	<code>\textyen</code> Japan (JPY) China (CNY)

The `mathdesign` package redefines `\texteuro` to be compatible with these fonts: *Utopia*, *Charter* or *Garamond*.

And then there is the `marvosym` package which has these symbols:

Symbol	L ^A T _E X Use
₰	<code>\Denarius</code> ² obsolete symbol for the German pfennig
€	<code>\EUR</code>

¹This version of the dollar sign with two vertical lines is called the *cifrão*. Amounts are generally written so that it serves as the decimal separator, such as 20\$00 for 20 escudos.

Symbol	L ^A T _E X Use
€	<code>\EURcr</code> euro compatible with <i>Courier</i>
€	<code>\EURdig</code> euro compatible with <code>marvosym</code> digits
€	<code>\EURhv</code> euro compatible with <i>Helvetica</i>
€	<code>\EURtm</code> euro compatible with <i>Times Roman</i>
\$ β	<code>\EyesDollar</code> <code>\Shilling</code> ³

In conclusion, L^AT_EX caters for all common, and some not so common, currency symbols. Unicode, however, has a few additional ones, and is far better documented.

6 Wikibooks

Jonathan Webley

6.1 Wikis

Wikis are the backbone of Web 2.0 – collaborative websites with dynamic, user-driven content.

The Wikimedia Foundation hosts many wiki projects in many languages using its MediaWiki application. These wikis all have the same, simple ethos – information is free. Notoriously, any anonymous amateur can contribute and there is no guarantee that information is either correct, complete or legal.

But surprisingly the concept works and the flagship project, Wikipedia, is a huge success. There are many editors making small contributions and a few who spend hours and hours editing. Minor errors are easily fixed, articles are continually kept

²The denarius was a Roman coin. The dinar is a descendant of the denarius and is used, or was formerly used, by several countries. However, Serbia, for example, uses the Cyrillic De (Д) letter for the dinar.

³This symbol resembles a beta (β) but I believe it to be more akin to the German Eszett ($\ß$). It is possibly a symbol for the schilling, the pre-euro currency of Austria.

up to date, and an army of volunteers check for vandalism and enforce standards. Copyright issues are dealt with, facts are checked and malicious contributors blocked. Wikipedia has readable and useful articles covering many more topics and in more depth than any paper encyclopædia.

6.2 L^AT_EX and MediaWiki

The MediaWiki software supports L^AT_EX. It uses a limited subset of $\mathcal{A}\mathcal{M}\mathcal{S}$ -L^AT_EX generating either PNG images or simple HTML mark-up, depending on user preferences and the complexity of the expression.



In MediaWiki, L^AT_EX commands are enclosed within the tags `$` and `$`; there is a button to insert these into the edit box. So a simple equation, such as Euler’s formula, would be entered as

```
<math>e^{i\pi} + 1 = 0</math>
```

And should appear on screen as:

$$e^{i\pi} + 1 = 0$$

Maxwell’s equations provide an example requiring aligned equations, and are entered as:

```
<math>
\begin{align}
\nabla \cdot \mathbf{D} &= \rho_f \\
\nabla \cdot \mathbf{B} &= 0 \\
\nabla \times \mathbf{E} &= -\frac{\partial \mathbf{B}}{\partial t} \\
\nabla \times \mathbf{H} &= \mathbf{J}_f + \frac{\partial \mathbf{D}}{\partial t}
\end{align}
</math>
```

```
\frac{\partial \mathbf{D}}{\partial t}
\end{align}
</math>
```

And these appear as:

$$\begin{aligned} \nabla \cdot \mathbf{D} &= \rho_f \\ \nabla \cdot \mathbf{B} &= 0 \\ \nabla \times \mathbf{E} &= -\frac{\partial \mathbf{B}}{\partial t} \\ \nabla \times \mathbf{H} &= \mathbf{J}_f + \frac{\partial \mathbf{D}}{\partial t} \end{aligned}$$

Equations are not automatically numbered, and the `align*` environment is neither available nor required.

6.3 Wikibooks

Wikipedia has several sister projects and Wikibooks is one of the more useful of these. Whereas Wikipedia hosts many encyclopædic articles, Wikibooks hosts fewer, longer articles or books, with a more connected narrative and chapters that would normally be read in order. Each Wikibook aims to be a definitive reference work – though few achieve this.

The Wikipedia article on L^AT_EX is short and covers only a few subjects such as the history of L^AT_EX and licensing issues. But in Wikibooks, the L^AT_EX book has over 30 chapters (or pages) and appendices. Some of these are substantial and considered “complete”, others are bare stubs. The chapters cover various subjects including tables, graphics, indexing and maths environments. There is a small index and a glossary and contains material both for the beginner and the expert. Wikipedia concentrates on the *why* and Wikibooks on the *how*.

Other sister projects include Wiktionary, a dictionary, which ultimately aims to define all words in all languages. Wikiversity is a “university”, which aims to have learning resources such as courses and tests, but has only a limited amount of material on L^AT_EX.

6.4 Featured Book

The Wikibook on L^AT_EX is a featured book. Out of the thousands of Wikibooks, less than 70 are featured. A random selection of featured books appears on the front page of Wikibooks. Featured

books have an exceptionally high quality, lots of content and are well-formatted. L^AT_EX was nominated in April 2007, garnered seven supporting votes and achieved featured status in May 2007.



The L^AT_EX book is listed as the 4th most popular Wikibook. Books are ranked by their most popular page, which for L^AT_EX is the front page – the contents page. This page averaged over 1000 hits per day over a sample period in 2008. Several other pages (or chapters) from this book also made it into the top 20.

Wikibooks, unlike most other wiki projects, has this year introduced reviewed pages. Reviewing assesses pages with regard to readability, accuracy and depth. A reviewed page is considered to be a stable version of that page. Reviewing can only be carried out by “editors”. Editor status is automatically granted to contributors who have met various criteria such as having made sufficient edits and having a confirmed email address. All pages need to be reviewed, and re-reviewed if changed. In the L^AT_EX Wikibook many pages still require to be reviewed.

6.5 Conclusion

All wiki content must be seen as a work-in-progress. If you don't like it – you can fix it, improve it or start again from scratch. The L^AT_EX Wikibook has several small chapters which need to be expanded; other chapters need to be enhanced, and more chapters could easily be added. There are also two very short and incomplete Wikibooks on T_EX.

In conclusion, the L^AT_EX Wikibook is a reasonably good online resource, and one that can only get better, especially with our support.

6.6 Links

L^AT_EX Wikibook:

en.wikibooks.org/wiki/LaTeX

T_EX Wikibook:

en.wikibooks.org/wiki/TeX

T_EX for the Impatient Wikibook:

en.wikibooks.org/wiki/TeX_for_the_Impatient

Wikibooks guide to reviewing pages:

en.wikibooks.org/wiki/Using_Wikibooks/Reviewing_Pages

Wikipedia article on L^AT_EX:

en.wikipedia.org/wiki/LaTeX

Wikipedia help on displaying formulæ:

en.wikipedia.org/wiki/Help:Displaying_a_formula

7 The Hound Answers

Across

8. steamer, 11. unclé, 12. ore, 13. sled, 14. mème
1. case, 3. awls, 6. Sue, 7. swede,

Down

4. woebecone, 5. seed, 7. shade, 9. bugs, 10. here
1. cusp, 2. spectacle,

8 Contributions

All contributions to *Baskerville* should be sent to the editor at:

baskerville@uk.tug.org

Articles on any area of T_EX or its friends, UK-TUG or related topics are very welcome. The Committee is particularly keen to publish articles with a UK *flavour*. Send in your comments on this issue; your suggestions, letters, thoughts, tips and hints, articles, jokes, questions, requests for help, jobs, cartoons or puzzles – anything relevant will be considered for publication.