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## Editorial comments

Barbara Beeton

### iTeX lives!

(ding-ding!)<sup>1</sup> A communication from Don Knuth reports that his sister gave him “a curious Christmas present”. Gift Republic Ltd. has a gimmick to offer a previously nameless star to customers, and allow the customer to give it an unofficial name. According to the promo lit,

The chosen star name will not necessarily be recognised by any scientific organisation or by astronomers and Gift Republic can accept no liability for this. Star names are published in the Gift Republic Star Registry which is stored in a secure location. A record of the Registry is periodically submitted to the British Library to ensure public accessibility and preservation.

The star chosen for Don has the AGASC\_ID<sup>2</sup> of 29897992; its coordinates are 9h 23m 46.4s, 1° 12′ 49.6″.

That (appropriately) puts it in the constellation Hydra, near the ‘head’ end — roughly midway between the serpent’s head and the constellation Sextans.

Its magnitude is 12.9. (That’s pretty dim, but it surely would be a lot brighter if we could get closer.)

I have no idea of the estimated distance from Earth to iTeX. But it’s probably pretty large, and that might explain why I haven’t seen any implementations yet.

Are there any astronomers in the audience? If so, we invite confirmation of the name.

Don concluded his message with this postscript: “Maybe there’s even a computer scientist in iTeX’s solar system who has given the name ‘iTeX’ to *our* sun. . .”

[The recent announcement of a star, only 40 light years away, with seven approximately earth-sized planets, leads one to think that this could even be a possibility, however remote.]

### L<sup>A</sup>T<sub>E</sub>X tutorials

Searching with Google for “L<sup>A</sup>T<sub>E</sub>X tutorial” produces the result “About 11,700,000 results (0.42 seconds)”. This is rather overwhelming. How is it possible to know what is current, demonstrates best practices, and presents material in a logical order? To some

extent, this is subjective, and what is helpful for one person will not necessarily be effective for another.

There are just a few tutorials listed on the TUG website.<sup>3</sup> While the basics of L<sup>A</sup>T<sub>E</sub>X are stable, there are always new developments worth sharing — tutorials can be instructive for both beginners and more advanced users.

Prodded by a suggestion that this might be a useful area to explore, I decided to review some of what is now available.

I admit to a strong bias in this area, based on decades of experience assisting authors in preparing manuscripts for publication by the AMS, and answering questions on various T<sub>E</sub>X forums. I am not encouraged by much of what is found on the web. For example, the first two introductory tutorials I sampled were well produced and organized logically, but they both recommended using a double backslash to start a new line of text. Prejudice against this practice is not just personal bias; the learners are being taught some things that will get them in trouble later on. These particular examples had many thousands of views reported, and favorable comments, but in my opinion they should not be recommended unconditionally, which is what I would hope for, for presentations listed by TUG.

Another example of a really good idea, but one that needs work, is the L<sup>A</sup>T<sub>E</sub>X Wikibook, [en.wikibooks.org/wiki/LaTeX](http://en.wikibooks.org/wiki/LaTeX). Like the tutorials, video and audio, this includes material does not exemplify “best practices”. The Wikibook *is* being worked on, but progress is slow.

It would certainly be welcome to have more good tutorials listed on the TUG website. If someone out there would be interested in reviewing what is available, please let us know. Like book reviews, which are both published here in *TUGboat* and posted on the TUG website, such exposure can (we hope) be a positive incentive for improved instruction.

### The Go fonts

A family of fonts commissioned by the Go programming language project has been developed by the Bigelow & Holmes font foundry. The family (called “Go”) includes proportional and fixed width faces in normal, bold and italic renderings. These fonts are particularly well adapted for use in displaying program code, with “punctuation characters easily distinguishable and operators lined up and placed consistently.” They are licensed under the same open source license as the rest of the Go project’s software.

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<sup>1</sup> [zeeba.tv/tug-2010/an-earthshaking-announcement](http://zeeba.tv/tug-2010/an-earthshaking-announcement)

<sup>2</sup> AGASC stands for the AXAF (Chandra) Guide and Acquisition Star Catalog.

<sup>3</sup> [tug.org/begin.html#doc](http://tug.org/begin.html#doc) and [tug.org/interest.html#latextutorials](http://tug.org/interest.html#latextutorials) with related material in the surrounding sections.

The announcement, made last November, appears at <https://blog.golang.org/go-fonts>.

L<sup>A</sup>T<sub>E</sub>X support was announced shortly thereafter as the `gofonts` package, which includes both font subfamilies under the names `GoSans` and `GoMono`; the package is available from CTAN.

Chuck Bigelow reports that the Go fonts work well with Lucida fonts

because they have the same x-heights and similar weights as Lucida, although width metrics are like those of Helvetica and Arial. That’s because the Go fonts were derived from the Luxi fonts, which were derived from Lucida fonts.

The Go proportional fonts are sans serif, especially appropriate for screen displays at small sizes. They are “humanist” in style, “derived from Humanist handwriting and early fonts of the Italian Renaissance, and still show subtle traces of pen-written calligraphy.” This is in contrast to the “grotesque” style characteristic of fonts like Helvetica. (An early 19th century sans serif typeface was named “Grotesque”, and the name became generic.) The monospace fonts carry slab serifs.

The italic form of the Go fonts is an oblique version of the roman, with the notable exception that the *a* is single story, redesigned to harmonize with the bowl shapes of *b* and similarly shaped letters, as shown in this sample.

<i>abdgpq</i>	<i>abdgpq</i>
<i>abdgpq</i>	<i>abdgpq</i>
<b><i>abdgpq</i></b>	<b><i>abdgpq</i></b>
<b><i>abdgpq</i></b>	<b><i>abdgpq</i></b>

The Go Mono fonts are eminently suitable for rendering computer code, as

[they] conform to the DIN 1450 standard by differentiating zero from capital O; numeral 1 from capital I (eye) and lowercase l (ell); numeral 5 from capital S; and numeral 8 from capital B. The shapes of bowls of *b d p q* follow the natural asymmetries of legible Renaissance handwriting, aiding differentiation and reducing confusion.

The cited blog entry provides more complete information.

Late addition from Chuck: An upgrade of the Go fonts is (already) in the making. It consists mostly of a bug fix to the `chart/box` characters, plus some

renaming to conform to current PostScript character naming. The Unicode “replacement” character (U+FFFD, a question mark reversed out of a black lozenge) is also being added.

On a related note, “Go” is not the first font to be named after a programming language. Adrian Frutiger designed a font named “Algol” to be used in a book about the Algol language, published in 1963.<sup>4</sup> This was a one-off creation in phototype, and has been long out of production. Jacques André, who told Chuck about this type, wishes someone would make a digital version. Any takers?

### METAFONT at 32

The 2<sup>5</sup> anniversary of METAFONT was celebrated last year, but I failed to mention it at the time. Well, better late than never.

As might be expected, Don Knuth presented a retrospective, with slides, at the San Francisco Public Library. The talk was part of the “Type@Cooper West” series, and the video is posted at [vimeo.com/184705112](https://vimeo.com/184705112). The video is also posted at [www.youtube.com/watch?v=0LR\\_lBEy7qU](https://www.youtube.com/watch?v=0LR_lBEy7qU).

The slides from the talk can be found on Don’s web page: [www-cs-faculty.stanford.edu/~knuth/MFtalk.pdf](http://www-cs-faculty.stanford.edu/~knuth/MFtalk.pdf).

Among the photographs are pictures of everyone who worked on METAFONT, font designers and graduate students alike. There’s a particularly nice photo of Don with Hermann Zapf and Matthew Carter; another shows the main “team”: Don with Richard Southall and Arthur Samuel as well as the students — how young they look!

### From TUG’16, more from Joe Clark

Two adjuncts to Joe Clark’s presentation at TUG 2016 are posted on his web site:

[blog.fawny.org/2016/11/07/tug2016/joeclark.org/appearances/tug/](http://blog.fawny.org/2016/11/07/tug2016/joeclark.org/appearances/tug/)

The video from the conference is also up:

[zeeba.tv/type-and-tiles-on-the-ttc/](http://zeeba.tv/type-and-tiles-on-the-ttc/)

The blog post contains Clark’s reactions to the TUG contingent that took up his invitation to tour some of the subway stops discussed in his talk. It also contains photos that are not in the published article. And finally, it contains his admission that, after the *TUGboat* editors had “converted [it] to some version of TeX” he simply edited the TeX file, “despite my never having done that before. A reason why TeX is still in use is because it actually works.”

◇ Barbara Beeton  
tugboat (at) tug dot org

<sup>4</sup> <https://tinyurl.com/frutiger-algol>