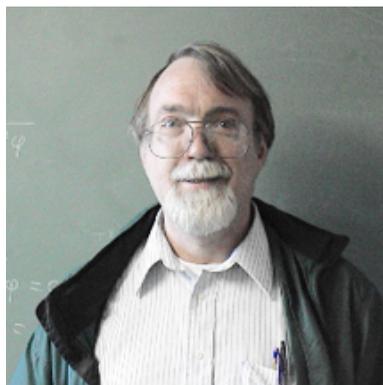


# Dan Luecking

Dan Luecking's answers on `comp.text.tex` are models of precision.

[Interview completed 8 November 2004.]



*Dave Walden, interviewer:* Please tell me a bit about your personal history independent of  $\TeX$ .

**Dan Luecking, interviewee:** I was reared in a small town (pop. 350) in southern Illinois populated almost exclusively by descendants of German Catholic immigrants. I was the second of 10 children.

After three years at Quincy College in Illinois, I graduated in 1971 from Southern Illinois University at Edwardsville with a BA in math. I spent the next five years at the University of Illinois in Urbana, receiving an MS in math in 1972 and a PhD in 1976.

After college, I was an instructor at MIT for two years and an assistant professor at Michigan State for three years. I moved to the University of Arkansas as an assistant professor in 1981, was later promoted to associate professor, and am now a professor. In 1989 to 1990, I was a visiting instructor at Trinity College in Dublin.

I married my wife Jan in 1986, acquiring a beautiful stepdaughter, Lindsay. Our son, Nicholas, was born in 1987.

*DW:* When and how did you first get involved with  $\TeX$  and its friends?

**DL:** It was on the sabbatical in 1989–90 at Trinity College. I was told that the fastest way to get a paper typed up was to do it myself in  $\LaTeX$ . I had a bit of research ready to write up and took it as an opportunity to learn by doing. I wrote the paper in about a month using  $\LaTeX$ .

When I returned to Arkansas, there was only one shared computer available to me. It contained a DOS version of  $\VTeX$ .  $\LaTeX$  was an extra-cost option for  $\VTeX$  at the time, so I learned plain  $\TeX$ . Later I found out about  $\emTeX$  and installed it on that computer. In the process, I became the Person-to-See about using  $\TeX$  on a PC (the only other version of  $\TeX$  around was Textures on a couple of Macs). Shortly after, that PC became my office computer. In successive computer upgrades I moved to  $\MiKTeX$  in 1997 and  $\fpTeX$  in 2002.

Sometime in the mid-90's I learned about  $\mfpic$  and used it quite a lot to create graphs for math quizzes and tests. It was through it that I got involved with Metafont and MetaPost.

*DW:* Almost daily, I see your very clear, to-the-point answers to various queries on the `comp.text.tex` list. How did you come to be a contributor to the  $\TeX$  community?

**DL:** It started with Eberhardt Mattes, the creator of  $\emTeX$ . I joined an email list of  $\emTeX$  users shortly after I first encountered it in 1990. I was very impressed with him.

Not only were his programs of high quality, but he monitored the emTeX mailing list and was always willing to join the discussion in a friendly, open, helpful manner. That, and the fact that he provided his software without cost, impressed the heck out of me.

Then I had a disk crash and had to download and reinstall emTeX. Inspired (I think) by Mattes' example, I kept notes, intending to write and contribute a report on the experience, including the errors I made as well as the tips I discovered. I wrote this up as a sort of getting-started guide and sent it to one of the TeX archives. This turned out to be pretty popular, as emTeX was in a confusing state at the time: some of its programs were in beta and significant changes were going on. I recall having mathematicians approach me afterward to ask "Are you the Luecking that wrote Setting Up emTeX? Thank you!" Hardly anyone has ever thanked me for my math papers.

I started reading `c.t.t` around 1991 and have done so since, almost every day, and I still get a thrill when someone says "thank you" for a suggestion that helps out.

The most extensive contribution I've made (in terms of man-hours) is `mfpic`. I sent a few suggestions for improvements/features/bugfixes to Geoffrey Tobin and we discussed how hard it would be to make `mfpic` work with MetaPost. I looked into it and managed (by trial and error mostly) to get it to draw some `xy`-axes, except the lines produced were way too thick. I tracked down the reason for that and, before I knew it, I was hooked. Since then I have assumed the maintenance of `mfpic` and work in MetaPost almost as much as in TeX.

**DW:** The world wide TeX infrastructure is very extensive. What aspects of the infrastructure or transitional events have impressed you?

**DL:** I have to say that the biggest event for me was the start of CTAN. It is difficult to describe how hard it was pre-Google (pre-WWW in fact!) to track down (L<sup>A</sup>)TeX material. With CTAN all that changed and I have nothing but gratitude for the volunteers who keep it going. The names I see most often in this connection are Robin Fairbairns, Jim Hefferon, Reinhard Zierke and Rainer Schöpf, but there could conceivably be others not as visible. Also George Greenwade was very much involved in the early days.

Just about as big an event was the advent of L<sup>A</sup>TeX 2<sub>ε</sub> in 1994. At the time I didn't see it as significant. L<sup>A</sup>TeX was pretty slow on my memory-limited PC and I tended to see it as bloated, but once I upgraded to a Pentium, that was no longer a significant problem and I started to see how convenient it was compared to coding in plain TeX.

Between the easy distribution of packages through CTAN and a better process in L<sup>A</sup>TeX 2<sub>ε</sub> for integrating packages, the number of packages seems to have exploded. It is also easier to find and distribute documentation, so there is a lot better process for finding out how to do things. Unfortunately, the sheer number of packages makes a second level of documentation all the more crucial: documenting what packages are available and what they do. The UK-TUG TeX FAQ maintained by Robin Fairbairns and the CTAN Catalogue (Graham Williams) are good starts (as is *The L<sup>A</sup>TeX Companion*) and more is added all the time.

Finally, emTeX is not much thought about nowadays, but in its day it was probably the most-used TeX on personal computers. I think it very significant that it made a high-quality complete TeX system available for the masses even on relatively low-performance hardware.

**DW:** I sometimes think of my involvement with TeX as being part of a "community". Do you have any thoughts on TeX as a community?

**DL:** In my mind the TeX community is a vast and loosely knit group of individuals who have only their use of TeX in common. The important individuals are undoubtedly those

who keep things running smoothly: the program developers, CTAN maintainers, package authors, and those who contribute help and advice either through the writing of books and documentation or through their postings to CTAN.

The strength lies in the amazing willingness of  $\TeX$  users to help one another. Sure there is occasionally a bit of friction on `c.t.t`, but mostly it is honest advice and patient instruction, freely given. Maybe this comes from an appreciation of the example set by Knuth when he made  $\TeX$  freely available.

The weakness may have a common source with the strength: many things are done by a loose association of volunteers, and things are not always done in a timely manner nor always well coordinated.

*DW*: Do you have an image of how  $\TeX$  and the  $\TeX$  world will or should evolve?

**DL**: I'd have to say that I don't really have any image of what will or should happen. No matter what improvements occur, there will always be more to do. There used to be endless discussion on `c.t.t` about how convenient it would be to have a direct `tex-to-ps` (later `tex-to-pdf`) program. Now we have it and there is the same endless discussion about some other newly perceived need.

My fascination with  $\TeX$  is probably based in no small part on the  $\TeX$  language itself. It may be a terrible language for coding things in, as some say, but I find learning its ins-and-outs a rewarding experience. Hiding that behind any level of user-interface has little appeal to me. But I'm probably completely atypical. If there is a successor to  $\TeX$  with "better" programmability, I might be just as fascinated with it.

*DW*: Enough about  $\TeX$ . Before I conclude this interview, please tell me a bit more about your work or activities outside the  $\TeX$  world.

**DL**: I teach and do research in mathematics. My area of expertise is complex analysis, but I spend most of my teaching time on calculus, differential equations and discrete mathematics.

I spend my spare time mostly at folk dancing. I am one of the performers in a local folk dance group called Anoush, which rehearses one night a week. I also help run the Fayetteville Traditional Dancers, which mostly entails doing the calling at our monthly dances.

I used to enjoy playing Go, but without a ready source of opponents in this area I've not played at all in the last 15 years (Internet play doesn't appeal to me at all). I also spend a lot of time at Free Cell and Minesweeper (76 is my best score).

*DW*: Thank you very much, Dan, for taking the time to communicate with us. I have enjoyed our exchange and learned much from it.