
Spending MacTeX funds

Richard Koch

1 The creation of MacTeX

At the 2005 TUG conference in Chapel Hill, North Carolina, Wendy McKay organized a lunch for Mac users and essentially willed MacTeX into existence then and there. She declared a “MacTeX group” with no official membership or rules; apparently we became charter members, and development began. On the form to join or renew membership with TUG, Wendy requested a special line for contributions to MacTeX, as already existed for L^ATeX and a few other projects.

2 Spending the MacTeX Fund

Contributions to the fund were slow at first, but it has grown to several thousand dollars, and today is one of the most popular funds administered by TUG.

As the fund grew, TUG directors suggested that we find ways to spend the money. My immediate reaction was that we should use it to hire programmers to fix a few thorny issues that had come up in the Mac world. This suggestion was immediately shot down when TUG folks pointed out that a thousand dollars is an impressive contribution, but will pay a programmer’s salary for only a week (or less). Gradually I learned that the TeX world is an open source miracle, created by thousands of men and women whose only reward is the gratitude of the people using their software. We cannot afford to hire programmers, but we can use the fund to smooth a few bumps along the way.

3 Specifics

Jonathan Kew originally wrote X_qTeX for the Macintosh. X_qTeX could use ordinary Mac fonts directly because Apple had a special framework to handle fonts, and the tables in TeX for kerning and the like could be replaced by calls to that framework. Later Kew extended X_qTeX to work on most platforms; then his day job changed and he had less time for TeX.

All was well until Apple decided to rewrite the font framework for a new version of Mac OS X. The framework used by Kew became “deprecated”. Both old and new frameworks were shipped, but eventually the deprecated framework would be dropped and X_qTeX would stop working on the Macintosh. What to do?

We struggled with this problem for years. Then Khaled Hosny miraculously appeared. He typeset Arabic using X_qTeX, and understood X_qTeX inter-

nals, but he didn’t own a Macintosh. So we bought one for him using money from the fund. Soon X_qTeX used the new font library. Problem solved!

4 LaTeXiT and TeX Live Utility

The MacTeX installer includes the widely used GUI programs ‘LaTeXiT’ by Pierre Chatelier and ‘TeX Live Utility’ by Adam Maxwell. Three years ago, Apple started requiring that install packages be notarized. Any application in a notarized package must be signed by an Apple developer and adopt a hardened runtime. It costs \$100 a year to be an Apple developer, and adopting a hardened runtime requires XCode running on recent hardware. Chatelier and Maxwell objected to that \$100 per year on principle and were happy with their current machines. So the programs had to be omitted from recent releases of MacTeX.

We offered to buy new hardware and pay the developer fee out of the fund, but both programmers were reluctant. We kept trying, and eventually, as the need for their programs never lessened, the authors relented. As of 2021, their programs are back in MacTeX, and have code with both ARM and Intel hardware support, thanks to the fund.

5 Bringing people to TUG conferences

In a small number of cases we paid TUG conference fees for users, and in one case we paid transportation fees from France to the US. That participant was Bruno Voisin, who was and is extremely active on Mac mailing lists. We wanted to meet him.

This was a wise use of money: Bruno is responsible for the Ghostscript we ship each year with MacTeX, including compilation instructions for CJK fonts in the Far East (working with Norbert Preining), and keeping track of Ghostscript’s new transparency operators (with Herbert Schulz). Now the MacTeX build instructions for Ghostscript have folders labeled “Bruno-Preining Email” and “Bruno Contributions” and a document named “How to Compile Ghostscript” with instructions from Bruno which I mechanically follow to create the package.

6 Lesson

In the open source world, my colleagues and I in the MacTeX group do not know how to invent tasks and hire people. But if others are already doing the work, we may be able to smooth a rough spot or two using generous contributions so many people have made to the MacTeX Fund. Thanks to all!

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