



Writing a book: a lesson in humility

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We have recently published a book on timekeeping, targeting for beginners who have technical degrees but are unfamiliar with the timekeeping art [1]. The effort lasted over two years. Progress in the first year was relatively slow, and then came six months that were largely devoted to the writing and rewriting. Finally, before the book was published, there were six months of relative calm punctuated by brief interactions with the publisher and occasional bouts of frenzied double-checking. This talk is a discussion of the issues that we had to deal with.

The first problem was to find a publisher. In our case, we were lucky that long publication lists and resumes indicating standing in the field were useful. We did not negotiate terms, but we did ask for and were granted extensions of the several deadlines. We were very successful in negotiating improvements to the layout in the book's first pre-publication draft.

Typographical and grammatical errors were an incessant problem, and just one of the many reasons why co-authorship is important. Many improvements came about in our word-for-word discussions about what exactly each other wanted to say. A more difficult issue is what level of detail to provide. We tended to give timescale and time transfer equations in detail, but in retrospect we should probably have given more detail on NTP and PTP formats because they would be useful for engineers, and format changes are likely to be backwards-compatible.

We were surprised to find there was no review process, yet we managed to get valuable advice from colleagues. In any book like this we would recommend finding an expert to critically comment on each chapter. The expert would be fully acknowledged in the text. If the book is in English, a native speaker is a very good idea.

Copyright issues required care, but we found that almost invariably the copyright holder would grant permission at no cost – with every request we of course promised to give full credit to the provenance. The one exception unfortunately was IEEE journals, which had an impersonal form. However even here the authors frequently had published the same plots in open source copyright-free locations. It was particularly useful to search the NIST paper archive at <https://tf.nist.gov/general/publications.htm>, not just for the good science there but also because publications by US Government employees were not subject to copyright.

We made the decision to add pictures at the start of each chapter, which complement the “thousand words” that follow. It was difficult to find adequate pictures in some cases, but we knew that the first thing readers would do is skip through the chapters to view the pictures.

While it was extremely humbling to think we were qualified to write a book covering an entire field in the first place, it is also humbling to realize that it won't be too many years before the rapid advances in the timekeeping art would justify a second edition by us or an entirely new book by some of those making those advancements happen.

1. P. Banerjee and D. Matsakis, “Introduction to Modern Timekeeping and Time Transfer”, Springer Press.