

Post Congress Tristesse

Malcolm Clark

Malcolm Clark, *TEXpert systems ltd.*, PO Box 1897, London NW6 1DQ

email: malcolmc@uk.ac.pcl.mole

Abstract

Almost every conference now has its proceedings made available to attendees, and perhaps even published to a wider audience. This is a description of the production of one conference proceedings, charting progress and pitfalls from the conference itself to the final bound proceedings being mailed to the attendees. It attempts to suggest that some aspects of the publishing process are perhaps more awkward than we might expect, but equally that there are unexpected rewards as well.

Introduction

Because we deal with an electronic typesetting system we may subscribe to the widespread myth that the progression of documents from manuscript to published form is now easier and more straightforward than it was formerly. The original text may be captured directly at the keyboard, then massaged into its correct grammatical and syntactical form until eventually something emerges which we may happily present to a publisher (or perhaps a local print shop). Because most of the process is (almost) under our own control we begin to wonder what all the fuss is about. On the other hand, few people really do complete the path from manuscript to book, although most of us are sure that it represents only a few more small steps forward.

The gulf between this make believe world and an instance—the production of the proceedings of the $\text{T}_{\text{E}}\text{X}_{88}$ conference—may help to expose the myth (and create other ones). It is a single instance, and of course is straightforward to dismiss through its own blend of chance and circumstance.

Perhaps I should have learned by my own previous experiences. The first conference proceedings I edited and produced through $\text{T}_{\text{E}}\text{X}$ was in 1984. This took an agonising 3 years (April 1981 to May 1984), but I at least had the excuse of having to key in the manuscripts myself, struggle with a buggy implementation of $\text{T}_{\text{E}}\text{X}_{80}$ and placate (apparently ungrateful) authors. Preview devices were few and far between and my only output device was an Autologic APS- $\mu 5$. In other words, I went straight to bromide, and often from there to the bin. But eventually the proceedings were published, and I still think they are quite attractive. There are some things I would change, but the constraints

of CDC Cyber/ $\text{T}_{\text{E}}\text{X}_{80}$ /APS- $\mu 5$ would have made such refinements extremely difficult. Shortly after, I typeset a book of thermodynamic tables using the Cyber/ $\text{T}_{\text{E}}\text{X}_{80}$ /APS- $\mu 5$ combination which were subsequently published by Pergamon.

In 1985–6 I had the temerity to write a Fortran book, which I produced entirely through the medium of $\text{T}_{\text{E}}\text{X}$ on a PC. The very first versions of $\text{T}_{\text{E}}\text{X}$ on IBM personal computers had appeared. This was my first encounter with stable and reliable $\text{T}_{\text{E}}\text{X}$. The Fortran book was laser “typeset” on an Imagen 8/300, and I had a preview facility on the PC. Of course, in those heady days, we thought that laser printed output was good.

By 1986 I therefore had some experience not only with producing conference proceedings, but also with producing a whole author-prepared book through $\text{T}_{\text{E}}\text{X}$. I thought I had solved most of the problems inherent in the publishing process. A publisher was now merely the outfit handling printing, binding and distribution. Everything else could be under my control. This of course was the sort of image being presented at the time as “desktop publishing” took hold. Having “published” from the desktop before the terms were invented, I felt I knew it all.

Theory

Obviously a conference proceedings is at least as easy to produce as a book. After all, the manuscripts are prepared by someone else, so the creation or origination is already taken care of. All we have to do is take the “compu-scripts” and pipe them through $\text{T}_{\text{E}}\text{X}$, and lo, a few minutes later, out will come the proceedings, which can then be dispatched

to the publisher. Within a few weeks of the conference, the bound volume will be winging its way to the participants. Excellent theory. But consider the following.

Ennui. If the conference organizer is also the editor of the proceedings, he or she may feel that once the last participant finally departs that it's over. The adrenalin levels reduce and you can start normal life again. Wrong. The difficult bit is just beginning. First you have to extract the papers from the authors, while at the same time fending off the participants who want to know when the proceedings will be out. The few authors who have already presented you with their papers also cannot see why there is any delay.

The paper isn't finished yet. The authors may not yet have finished writing their papers. What they presented is likely not quite what they wrote down. As an editor, you can of course take a really hard line and demand that all papers have to be in before they may be presented. In my view this is unrealistic and counter productive. \TeX users are known by their cooperative and amiable natures (the one or two exceptions are all the more cuddly and lovable for not adhering to this norm).

If you are trying to arrange a conference, you want as many papers as possible. It's an eerie feeling scheduling three days of talks long before anyone says they are coming. The first few months of organisation are very lonely. In general you are delighted to extract a plausible title and an abstract. Demanding a fully written paper is expecting a great deal. In any case, I would argue that the paper might so benefit from the delivery that it requires amendment, enhancement, improvement, or even rewriting. If the conference is any good it will expose the authors to some new ideas which likely have relevance to their own specialties. So at best we can expect some editing by the authors, which will take up some time; at worst, we can expect to see the paper actually rewritten.

\TeX or \LaTeX ? Since we have (at least) two "standards," \TeX and \LaTeX , some authors prefer one, and some the other. At the time of the conference I had very little experience with \LaTeX style files, and didn't really want to convert to \LaTeX . The "standard" \LaTeX book style seemed clumsy and foreign to me. At the time it seemed less arduous to change the \LaTeX "encoded" documents to plain than vice versa. Fortunately no-one submitted an article in something completely bizarre. At no time

did I assume I could produce a heterogeneous volume which combined both plain \TeX and \LaTeX —although that is what *TUGboat* does.

Of course it was always the intention to produce the whole proceedings with \TeX . As a matter of principle, but also because many of the papers discussed aspects of \TeX which could only be illustrated by using \TeX itself.

The Papers Trickle In

Almost all the papers arrived electronically, either as floppy disks (of both persuasions), or as electronic mail. I had no difficulty in transferring all of these to the Macintosh with Kermit. There was still one slight problem, since one of the major relays used by the UK for the transmission of electronic mail is Rutherford, where due to an incompatibility between ASCII and EBCDIC certain characters are mapped incorrectly. Incorrect mapping is no great problem, provided it is one to one. It isn't. Fortunately, knowing the problem, it is possible to correct it manually.

And one or two came on paper, or not at all. This last category represents a problem. Naturally I wanted the conference proceedings to reflect what went on at the conference—or, at least, the formal part of what went on. I was reluctant to erect some sort of refereeing structure. It was not an academic conference, and refereeing seems inappropriate. Therefore the papers are not going to be screened beforehand, except in a very rudimentary way. Once a paper has been presented it should be represented in the proceedings, if the proceedings are supposed to represent the conference. Two papers which were on the program but not presented do not appear in the proceedings. One extra paper does appear, but I plead extenuating circumstances and editor's privileges (there's no point having power if you don't abuse it). The extra paper was from Poland, and discussed some aspects of the adaptation of \TeX to Polish typographic needs. This seemed so appropriate and apposite for a European conference that, despite the fact that the authors could not present the paper, I included it.

This still leaves the problem of the papers which don't arrive. There are several reasons why this might occur. Some papers just never do get written, and some did fall in that category. But I still had the abstract. So the abstracts went into the proceedings. The other non-papers were those which were written, but went elsewhere because of the delay. Really, only one fell into that category.

The particular paper contained a great deal of rather Unix-specific, L^AT_EX-specific graphics and had proved to be beyond the capabilities of any driver to process (in its entirety). It was therefore a paper I put to the bottom of my pile, and when I came to retrieve it, it had gone (it is available in another form now).

A Matter of Style

I had decided not to issue a set of style instructions to authors, except to indicate that provided they could provide an ASCII text, with or without markup, I would handle it. This seemed an almost achievable base level. My own experience, borne out with conversations with others, seemed to be that authors would ignore the stylistic recommendations anyway. There are two stylistic features at work here. There is the ‘consistency’ aspect of style, and the “use of language” aspect

Consistency. The “house style” may require that we always refer to a device independent file as a `dvi`, or `.dvi` or even `dvi` file. We can always say that provided we encode the phrase as `\dvi` it really doesn’t matter. The “style” will pick it up and put it in correctly. But first you have to have the author encode it as `\dvi`. They might, and they might not. Were it not for authors and their whims and vagaries, producing books would be simple. There are also the other elements of expanding “*e.g.*” to “*for example*” and “*i.e.*” to “*that is.*”

Language. “Use of language” is a fascinating area. The language of the conference was English, for which I make no apologies; English is sufficiently well-understood in the rest of Europe to make it close to a *lingua franca*—ignoring the obvious oxymoron. But as an international conference, the first language of many of those offering papers was not English.

What then do we do with the infelicities of grammar and style? I find this a thorny problem. I have always resented editors who turn my own idiosyncratic style into bland Euro- (or perhaps Oxo-) english. I prefer to think that what I am reading was written by an individual, and by neither a committee nor a machine. My criterion was therefore “is the meaning clear?” The reader will be able to find sentences in the proceedings which are a little quirky, and which may even amuse. I argue that this is no bad thing, unless it obscures the meaning for those who do not appreciate the full weft and warp of English. These considerations

are as applicable to those who claim to possess English as a first language.

I would like to think that the reader can detect those instances where the authors are not native English speakers, and will therefore appreciate all the more the heroic job those authors will have done in expressing themselves in an alien mode.

My own addition to house style was to remove as many accents as possible. Just because T_EX allows you to say “naïve” instead of “naive” does not mean you should. English had the foresight to dispense with all this fancy foreign frippery, while accomodating hundreds of “foreign” words. There is no need to lard on the accents to a language which does not use them. If we can distinguish and pronounce rough, cough, chough, lough, through, bough, hough, enough, slough, Slough and tough, as well as bow, cow, low, row, throw, how, hoe, enow, tow, toe, sloe and slow, we really don’t need it in “naive.”

Look and feel. There is a rather grander aspect to style, the sort that is enshrined in the look of the book. We each have feeling of what constitutes a sentence or a paragraph, and how we assemble these elements into larger units. It should not come as too much of a surprise that there is little agreement on these “feelings.” Some people write very long sentences or very long paragraphs. T_EX hardly encourages paragraphs over about two or three pages long. The subdivision of text into units (like sections and subsections) is a personal business. An article made up of lots of sections and subsections looks very different from one with few. The differing “granularity” may mean that the interplay of white space obscures what the editor fondly thought was the underlying homogeneity of layout style. A conference proceedings is likely to be an extreme example. A book by a single author is far less likely to exhibit these pathological symptoms.

Publish, Please

Although it may not have been obvious to the authors, I was beavering away, assembling, editing and negotiating. I had approached a couple of publishers with the project, choosing those who I knew to have some “interest” in T_EX. Addison Wesley (who produced the first European T_EX Conference Proceedings) didn’t want to know; similarly, Wiley’s “didn’t do conference proceedings.” So I went back to my old reliable publisher, Ellis Horwood. Provided I produced the typeset pages, they would

do the rest. Naturally I would present them with some interim examples to confirm that I was not too far from their house style.

The printing. In the beginning, I thought we would laser print the final copy. Although I knew a few people who could take \TeX dvi and typeset – a few of them had been at the conference: Cambridge University Press, Imprimerie Louis-Jean, Stürtz, American Mathematical Society. I had not done it myself since the days of the APS- $\mu 5$. This is the one area where the delay in production was an advantage. Had I managed to get the proceedings out by Christmas 1988 (once an idle dream), they would have been laser set. The extra effort in going to typeset in late 1989/early 1990 was minimal. The increase in perceived quality seems enormous.

I had become convinced that laser printing was only suitable as a proofing stage. “Masterpieces of the publishing art” were simply not possible with 300 dpi printers. In addition, I had come to the conclusion that Computer Modern looked really good at typeset resolutions, but that it had never been intended for low resolution printing.

I admit I look at the other \TeX conference proceedings (the two European conferences and the last two TUG conferences), and I’m inclined to think that they do not show \TeX at its best. Having said that, I open myself up to similar criticism. At worst, I think *my* proceedings are merely mediocre. They are still the best produced of the bunch.

I decided to phototypeset, using the University of London Computer Centre’s Linotron 300. Members of the typesetter’s user group had used it to produce \TeX output. A couple of friendly Vaxes had been monopolised for a weekend to produce the 1270 dpi \TeX fonts, which were subsequently used in a number of publications. I was assured that it was a well-trodden path.

Production Problems

I was fortunate that none of my authors provided manuscripts which required one of the currently fashionable “gross” \TeX versions. Everything could be processed on my 1Mbyte Mac Plus with *Textures*. By the end of the project I also had access to a 4Mbyte Macintosh IICI, which was appreciably faster. The last paper to arrive (by email from Austria), Michael Ramek’s, was processed entirely on the IICI. I had always expected that Michael’s paper would present a problem. I had erroneously supposed that he used a “gross” \TeX . The complexity of the graphs and chemical structures which

he produced through \TeX macros encouraged my view. In the event he made such an excellent job of coding the macros that there was no problem with a “standard” memory version.

The typesetter strikes back. Although I had not finished editing all the papers, most were done by the time I had arranged to use the ULCC typesetter. I therefore started to produce some bromides. After all, there should be no problem, others had done it before me. To my surprise and amazement I discovered that “ \TeX ” fonts meant just that. None of the \LaTeX fonts were available, nor were the logo fonts used for the METAFONT logo. After a great deal of ferreting around I found the necessary fonts at the Open University and was able to ship them not only to ULCC, but also to the Aston Archive.

But even shipping the dvi to ULCC had presented a problem. My IICI had software which allows a large file to be shipped in a matter of seconds to my host Vax. The Vax could then be used to FTP the file to ULCC, again in a matter of seconds. Unfortunately, this two stage process appeared to damage the file in some way, so that it was not recognisable when it reached the ULCC microVax. I could have solved the problem eventually, but instead I choose to use another route, using Kermit to transfer the dvi file directly from the Mac to the microVax which was the typesetter’s front-end. This worked, but it took an enormously long time: a couple of hours for a file. I had been advised to send files of no more than about 40 pages. Needless to say, everything went through at least twice. Just as it is impossible to see the mistakes in preview on the screen, it is also impossible to see all the mistakes in the laser printed copy. Once in bromide, some more of the remaining mistakes leap out before you.

An exceptional story. Rick Simpson’s was one of the exceptional papers. The story is a little involved. His paper discussed three ways of inserting diagrams into a \TeX document. Two of the ways involved using a preprocessing program which generated both METAFONT code and \LaTeX instructions. The METAFONT code was then processed to produce a single character which did all the things that \LaTeX couldn’t – for example, graph elements. The third way was to take a scanned image and convert it to “packed pixel” format – in other words, another character which could be handled “in the normal way.” Somehow I had managed to acquire an IBM 6150 running AIX, as well as Rick’s own port of \TeX to that machine. I could therefore edit

his paper, which he provided on floppy, readable by AIX. This still didn't solve the problem of output, but I thought I might always either "cut and paste" or have him laser print it from my edited version. I managed to move the text of the paper to a DOS disk (AIX allows you to create DOS disks), which could then be moved, via Kermit, to my Mac. Of course, the diagrams were not going to travel quite so easily. I reasoned that since I had the METAFONT files it should be possible to run these through METAFONT to produce a complete set of pk files which a suitable driver could process.

I persuaded Philip Taylor to generate the pk files: I knew he had some experience with METAFONT, and since he used Vaxes I was confident that the file transfer to ULCC would not be difficult. He duly produced both 300 dpi and 1270 dpi pk versions of the METAFONT files, and ran the paper with the illustrations and the other pk file on his local machine to produce 300 dpi output. When he tried to generate the 1270 dpi version, the device driver fell over and died. Reading Rick's paper a little more closely, I noted that the device driver would have to be able to handle very large characters. Evidently this one had been unable to do so. I would have been happy to have some of the paper typeset and to include as much of the pk "bits" as possible, but unfortunately Phil had lots of other things to do. In the meantime, Rick had sent me an up-to-date laser printed copy of his paper. I resorted to typesetting the text and using cut and paste for the graphics.

I see no conceptual or ethical problems here. Cut and paste has been in the armoury of book producers for a long time. If it is appropriate, I shall continue to use it. It had already become evident that cut and paste was going to be used for the diagrams in Angela Oakley and Tony Norris' paper, since the PostScript files they generated were long gone. This is another instance where speedier production would have been appropriate.

Cut and paste was used only in the two papers mentioned above. All the other "graphical" elements, like those in Michael Ramek's paper, Anne Brüggeman-Klein and Derick Wood's paper, Alois Heinz' paper and Jörg Winckler's were handled by a mixture of T_EX and *Textures*' \specials. Anne and Derick's paper was provided in L^AT_EX, and made heavy use of the picture environment. Fortunately they also provided some equivalent macros for plain T_EX. These included the picture environment from L^AT_EX, which is sufficiently modular that it can be removed from L^AT_EX and used more or less independently. It was used for a diagram in Jörg's

paper, and also, with some modification, for a large diagram in Angela and Tony's paper.

The clouds part. Alois Heinz' paper, as noted above, made use of two \specials. Fortunately, he had also used *Textures*, but because I was sending the dvi file to a very different dvi-to-PostScript convertor, I couldn't expect to handle the pictures correctly, and I had expected to cut and paste them, but at this point I had two pieces of good fortune. First, Blue Sky, the authors of *Textures* made an early release of their PostScript outline Computer Modern fonts available. The second stroke of luck was to be summoned to Cheltenham to use one of Linotype's LN300 machines. I took Alois' paper with me. It proved to be embarrassingly simple to generate the paper, \specials included. No doubt purists will now be taking their magnifying glasses to prove that there are significant differences between the outline Computer Modern and the bitmapped Computer Modern. I know which I prefer to use. There is something attractive in having an LN300 attached to your Macintosh. Who needs laser printers?

Keying in. One paper was about a system based on T_EX. Our original intention had been to use that system to produce bromide, emulating the style of the rest of the proceedings, but permitting the differences to be seen by the comparison that would be manifest. This one had been electronically lost. Fortunately I had a paper copy, so I rekeyed it, although one or two small changes had to be made in the text to reflect the reversion to T_EX.

The End is Nigh

By this time, everything had fallen into place, and only the front matter and end matter were still to be done. Previously when I had created indexes for books I had done it myself. I had soon concluded that indexing was not only difficult, but it was also time consuming. I felt that an author (or editor) was far too close to their subject to be able to make the "correct" sorts of judgements about the indexed material. Indexing must be kept for mature reflection, preferably someone else's. I hired someone else to do the job—a professional indexer. Judge for yourself. The preface and table of contents were simple enough to do, although time consuming. The last few jobs still take time. The most difficult decision was whether to have a dedication. I wanted one, but decided it would create too much embarrassment.

All this time, my publisher had been remarkably patient. Ellis Horwood was then bought out by the US publisher, Simon and Schuster. I had a momentary shudder when I heard this. Oh dear, there goes my contract. But no.

At length the bromides, together with what I hoped were clear instructions on the paste-ups, were sent off to Ellis Horwood in Chichester. The proceedings arrived in my hands on April 30th (twenty-one months after the conference!).

A Few Lessons to Ignore

Editing. Editing takes time. Do not underestimate the task. Perhaps insisting that authors adopt a standard style would have simplified things. I'm not sure about this at all. Part of my doubt relates to the fact that a T_EX conference, in particular, will likely contain papers which extend any style to its limits, or will require extensions to the style to accommodate features the editor/style writer has not considered.

The sheer physical task of editing can be arduous and time consuming. It can be frustratingly difficult to spot typographic errors on the screen. Anyone who has had anything published has had the experience of picking up the end result and instantly seeing a typo. Professional copy editors have a rare skill, which we should not underestimate. Indeed, if publishers have one great benefit to bestow on us, it is in copy-editing.

I think the weakest part of the proceedings are the bibliographies. I thought of having a single bibliography, but this is awkward unless you are able to use a tool like B_IB_TE_X. Since I was not using L_AT_EX, that was not possible. I am conscious that the bibliographies are not as consistent as they might be. A version of B_IB_TE_X which worked independently of L_AT_EX, together with the ability to generate chapter-at-a-time bibliographies would have helped.

Leave well alone. Timeliness might be preferred to production values. Certainly, quite a few authors would have been better pleased to see their offerings in print much sooner. I would too. Equally, a number of others seemed quite pleased that something would be produced, however late it was. But one of the features of having everything available electronically is that there is always a tendency to keep refining beyond the point at which the refinements are noticeable. A commercial venture does not have this problem: it goes bankrupt.

More cooks. It is very difficult to surrender control to someone else. There are only one or two others I could have shared this with. The few times I had to go outside my own resources proved to be counter productive. While this rather reinforces the notion that you have to do it all yourself, I don't think that is what I am implying. Where there are properly definable tasks, they can be assigned. Like the phototypesetting, the indexing, and the stuff the publisher did. I think the copy-editing should be separated out, too.

It's a lonely job. Nobody loves the editor. The authors generally can't understand why it's taking so long; wives and/or lovers begin to wonder who you are; your publisher takes to phoning you to ask when the bromides will be ready, or starts writing "bank-manager" looking letters. It's not for the squeamish or the sensitive. And don't expect thanks.

Conclusion

In common with so much of T_EX, the conference and the proceedings were an amateur affair. Recall that *amateur* need not be a perjorative term, any more than *professional* implies excellence. This was a labour of love. I hope I never lose my amateur status.

Would I do it again? Of course. Some people never learn! But next time I'll get it right.

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