BIJLAGE X

Board-of-Directors and Euro-Summit at Cork90

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Cork90: the end of a decennium, the start of a new era

Summary

TUG organizational:

- TUG is really open now.
- Working Groups will be sent off with better task descriptions and reporting time schedules.
- How to fulfil better membership needs is proposed.
- A scholarly TUGboat and a separate newsletter is proposed. Topical TUGboat issues are under consideration.
- No increased membership/postage fees for those outside USA.
- The dangling reciprocal membership question is near to a pilot study.
- BoD can operate faster because of adoption of voting by e-mail.
- An extended membership directory is asked for.
- A resource directory is asked for.
- Maintenance/evolution of TEX etc. software must be handled by TUG and LUG s; DEK and LL are out of it!
- More attention will be paid to PR activities: Welcome c.q. Information/Demo packets will be prepared.

Euro-Summit:

- Eastern and Western European countries will exchange information.
- A status report, Euro-Summit Cork90(?), will appear with contact addresses and status reports.

Cork90

Cork is a friendly city by the sea with many bridges —not as famous as the Koningsberger bridges though— with in the past George Boole laying down computer science basics at this very University 1849–64: Boolean algebra. The conference was well organized, with the novelty of e-mail for every participant (Well-done Peter!)

This first TUG conference in Europe must not be confused with the previous European meetings sponsored by TUG, like e.g. the last Karlsruhe meeting. The organization had the usual set-up: conference over several days with one stream of presentations, the vendor booths, board meetings at 'morning, noon and evening,' with courses at the days before and after. The Europeans had their marathon too: The Euro-Summit!

Another novelty was the availability of the proceedings of the TEXas AM meeting. (Congratulations Lincoln!)

1 Board of Directors meetings

E-mail clashes and heavy phone-calls preluded what might be called a phoenix meeting. The key-issue was: How should TUG fulfil its international role, despite its USA roots and lacking time to handle things appropriately. Waves coming ashore from Western Europe, immediately followed by the even higher Eastern European seas, not to mention the waves from the Pacific, especially Japan! Some numbers: TUG ≈3,500 members, Western Europe ≈1,500 members, Eastern Europe 500–1000, with an enormous potential, Japan ≈500 members, Australia ?, China ?, ... One thing for sure: the sea will eventually calm down, let us make a guess at 10,000–15,000 members, within 5 years (another guess), with a tenfold or so out there, just silently running their TEX engine, without much ado. So, how is TUG going to address the international challenge?

1.1 Openness

First, the basics, what about openness? At this meeting the board was keen on *acting as a board* and therefore motioned to have access to all information, especially that privileged to the executive committee. It was also agreed to have the minutes available within a month after the meeting and have these accepted and available for free within another month, with the TUG office nagging. In TUGboat, or the newsletter, the president will summarize as soon as possible the main issues treated, in easy going prose.

1.2 Working groups

Second, the working groups (WG s) need a proper description of their task and reporting time schedules. More or less so motioned and passed.

1.3 Organizational structure

Third, the organizational structure will be reconsidered by a WG appointed by Nelson Beebe, where the size of the board, the representation (by election, by appointment), etc. will be addressed. With an International TUG in mind, *perceived as such by the people outside the United States !* As an *aside,* some confusion of tasks has been cleared up: the executive director (ED) is no longer a board member! The renewal of the ED-contract can't be done without consent of the board! So TUG will endeavour hard times, and it is expected that the community will experience less service the coming year.

1.4 E-mail voting of BoD

The board of directors (BoD) also motioned the possibility of voting by e-mail, in order to continue work, instead of awaiting the next TUG meeting with an overcrowded BoD agenda. After settling details the motion was passed.

1.5 Reports

Apart from the Language/Local User Groups (LUG s) reports, the following committees reported:

- on local working groups (in writing),
- on membership issues (in writing),
- bylaws (in writing and acting),
- on local working groups (in writing),
- multilingual review (in writing and for review by the membership at large),
- scholarship,
- PD software and its distribution,
- elections/voting by (e-)mail,
- T-shirts (a winner in time spend-revenue ratio),
- finance committee (yes, we will have a loss).

Some 18 committees were listed, with a few missing, especially the one devoted to education.

Much information exchange took place and creative ideas filled the room.

From the written reports the main ideas are summarized below with some oversights added.

1.5.1 LUG s

TUG feels that LUG s are extremely important because they contribute to have TEX etc. widely accepted. We have some well-known and prospering LUG s from Western Europe and Japan, with those from Eastern Europe just taking off. From within the USA the California and Delaware local groups made themselves known.
How to assist?

- Give the welcome feeling (Is formalization of LUG s necessary?).
- Provide information packets:
  for members a resource directory,
  for novices a welcome package (with among others membership/resource directory),
  and for interessees a demo package.
- Provide a list of ideas where LUG boards might pick from in order to serve their members
  How to:
  handle local queries,
  organize resources,
  compile the good information,
  disseminate information,
  distribute books/software/gadgets etc.,
  to organize local meetings,
  to set-up a newsletter,
  start cooperation, ...
- Support local meetings and conferences.
- Support organizing classes, by providing courseware, (names of) teachers, and some funding if needed.
- Share know-how (information/speakers/teachers exchange).
- Fund projects where everybody profits from (TUGboat, LATEX project, TEXHaX, floppy copying machine (passed)).

In return?

- Submission of status reports, participation in board/committees, etc.
- Submission of articles,
- Provide speakers/teachers/authors etc.

Still dangling are:

- The reciprocal/mutual/associate/. . .-membership issues: TUG with any LUG.
- LUG cooperation; an European newsletter/journal in various representations? shared projects? fileservers synchronization?

1.5.2 Membership committee

Axiomatix is expansion of membership. Some proposals made:

- A membership satisfaction survey has been set up and sent out.
- A membership card is urged for.
- Members should be able to obtain discounts and/or special offers on the sale of TEX/TUG materials.
- What about: 'Welcome to membership' packet from TUG and/or LUG?
- What about: 'Information packet with demo floppies or even PD version for free?'
- What about: 'TUG a member?'
- Reciprocal membership TUG with LUG s should be costed out, a pilot study?
- Encourage vendors to help: ask for including as part of a TEX etc. book the TUG/LUG info leaflet; similar enclosure for software sold.

- What about: 'Checking membership list with customer lists, TEXHaX/MaG lists, and inviting non-members to membership?'
- What about: 'Posters with the benefits of TUG/LUG?'
- We should follow-up lapsed members.

Added: Courseware for LUG/TUG beginning course should comprise the information packet.

1.5.3 Working Groups committee

One of the complaints is that WG s don't report regularly. Although this demonstrates that in a volunteer-based organization 'the flesh is stronger than the will,' the board adopted a motion about providing proper guidance to WG s.

1.5.4 Font character encoding committee

Michael Ferguson pushed ahead the difficult standardization process. LUG s are strongly invited to comment on the WG-proposal, sealed by the board.

1.5.5 Fileservers/TUGlib work

Don Hosek and Nelson Beebe have been quite active in this area, not to forget the volunteers out there who feed and maintain the servers. Synchronization of the various fileservers is an ideal task which will never be attained. The long-term goal of course is, to have your local fileserver intelligent enough to handle appropriately your requests. The Achilles heel in any system is to keep the directory up-to-date. Synchronization (and maintaining) tables of contents to strive for is already neat, and useful anyhow. NETlib experience has it that the software used to be available while the directory lagged behind.

1.5.6 (PD) Software validation and distribution

Thinking about software distribution by TUG, especially for personal computers (PC s), has just started. Some LUG s distribute already, apart from the difficult question of a quality/TEX seal (passed Trip/Trap test appropriately, sufficient documentation is provided, etc.) This is different from the former implementers job, because of scale.

A floppy copying machine will be purchased by the office; LUG s can make use of it, at some unknown conditions of yet.

1.6 Home work

During the conference two notes were composed:

- Expanding the use of TEX along with implementation plan, and
- Objectives for TUG 1991–92.

Although these notes reflect most of what was brought to attention (before and at the meetings) they have not been discussed in open and have not been passed, because, . . . , believe it or not, lack of time, other important business, and *no time-control on the various items* of the agenda. For a complete report await the minutes which will be out very soon, because of e-mail acceptance procedure. For the impatients: look out for the president's view of the meetings in next TUGboat or newsletter.

1.7 Next TUG conferences

The very next one is scheduled in summer at the 'home' of TUG: Providence Rhode Island. For the next 'TUG in Europe' meeting offers have been received from GUTenberg and CSTEX. The decision will be made in October.[1]

2 Euro-Summit

For this summit Western and Eastern European 'LUG s' were invited. Present were: GUTenberg, DANTE, ukTEXug, NordicTUG, NTG; Irina from Russia, two delegates from Poland, Yugoslavia, HunTUG, and from CSTUG. For TUG Nelson Beebe, Alan Hoenig and the executive director Ray Goucher, were present; the meeting was chaired by Malcolm, the European coordinator.

After a welcome etc. we started by making ourselves known followed by overviews of the status and wishes of the various LUG s. These surveys as well as the contact addresses were considered useful and therefore Malcolm volunteered in bundling this information (To appear)[2] Moreover, we agreed to extend the Western European information exchange process to the whole of Europe: every LUG will receive newsletters/minutes etc. from the other LUG s. Of course the European coordinator will be informed as well.

The atmosphere of the meeting was cordially, but a bit out of balance to my taste: some 'patronizing' attitude of the Western groups towards the Eastern. Undoubtedly it must have been read as eagerness to assist the 'new' ones. Agreed most Eastern LUG s endeavour difficulties because of *currency conversion* problems, *insufficient network facilities* and in general *hardware drawbacks.*

The Eastern representatives felt it extremely useful just to be present, to participate at the conference, to meet so

[1] GUTenberg pushed ahead. They announced to have the meeting in France, organized by GUTenberg next September, with all the LUG presidents on the program committee, independent from TUG.

[2] This report will partially overlap with the publications:
Summary of resources available to TEX users, TUGboat, 11#1, 32–35, # 2, 207.
The international reports in the proceedings issue, TUGboat, 11#3, 444–450.
TEX, TUG, and Eastern Europe, TUGboat, 11#1, 122–123.

many people with similar interests, to share experience, and to take home most of the Aston archive.

2.1 A summary of characteristics

- **DANTE**
  Most rapidly growing LUG with ≈800 members, a newsletter, two fileservers (also FTP access), listserver, projects: TEX at highschools, TEX on TV, TEX in journals, and several active famous people: Frank and Rainer, Appel, Schwarz, von Bechtolsheim, Wonneberger, Brüggeman-Klein, the LATEX-project guarded by Frank and Rainer.
- **GUTenberg**
  A solid group with ≈400 members, a journal, a listserver, joined fileserver with DANTE, well-attended open meetings, with o.a. TUG/LUG representatives. Offered to host next European meeting.
- **ukTEXug**
  They have Malcolm! (and therefore TEXline, the Exeter proceedings out, firm contacts with other LUG s, . . .), the Ashton archive activity, moderated listserver, several teachers, a TEX companion book in proof, a hundred members or so.
- **NordicTUG**
  Humming TEX and working on character encoding schemes, institutionalisation is fled from like the plague.
- **NTG**
  Roughly a hundred members, two fileservers, a listserver, LATEX activity, bother about teaching and cooperation (especially with other LUG s and SGML), no newsletter yet: just minutes plus appendices (≈ 100p), various contributions to TUGboat.

On the whole Eastern European groups encounter language problems:

- lack of hyphenation tables,
- problems with accented characters,
- problems with (cyrillic)fonts,
- translation of *the* books into the local languages.

They also have problems in just getting the materials there. Most groups are not yet formally organized. At the moment it is unclear in what way help could be given apart from exchanging contact adresses, information, software and the news.[3] Note that Bien and Ryśko already published articles in TUGboat.

3 Birds-Of-a-Feather sessions

Of the several BoF s one did address a motion to the board.

3.1 Future of TEX

The board is asked to acknowledge that TUG and the LUG s have to maintain and develop TEX etc. That it should oversee and coordinate changes to TEX in order to prevent fragmentation, that it shall find a balance between stifling and development, that it shall stimulate and/or fund research into unsolved typographical problems! This motion has not yet been discussed by the board, because, . . . , yes, you know already.[4]

4 Conference

A separate conference report will appear written by Nico, Johannes and myself.

[3] More detailed information: see the earlier announced Euro-Summit90 report

[4] Added in proof: See Knuth's statement enclosed as appendix.

BIJLAGE Y

The Dutch and international 1990 TEX conferences

N.A.F.M. Poppelier, C.G. van der Laan

10–13 September 1990

The fifth European TEX conference was also the first TEX Users Group Meeting in Europe, i.e. the first international meeting of the users group outside North-America. The conference was held at University College Cork, a university campus with a charming mix of old and new buildings among lawns and trees, in Ireland's second largest city.

The organizer of the conference, Peter Flynn, who works at the computer centre of University College Cork, had done a great job on organizing this big conference with about 175 attendees from 23 (!) different countries, with the notable exception of Japan. As for the social side of the conference: there was a get-together party after registration on Sunday evening, a dinner at the university restaurant on Monday, and on Tuesday an excursion to Blarney Castle, followed by dinner with live music and folk dancing in a restaurant nearby. Apart from this there was also plenty of opportunity to meet people and discuss various things during coffee, lunch or tea breaks. The programme was not overfull and there was more than enough time to discuss TEX and related matters with TEX users from all over the world.

Monday, September 10

After not-so-formal opening speeches by the Minister for Science & Technology of Ireland and the dean of University College Cork, the first international TEX conference in Europe was a fact.

Erich Neuwirth (University of Vienna) had the honour (unpleasant task?) of giving the first talk. He showed that you can create quick-and-diry databases with basic tools such as TEX and the Unix tool `awk`. Erich seemed to advertise the use of `awk` by larger parts of the TEX community: `awk` has been ported to the MS-DOS world and, apart from several commercial versions, there is a free version available from the Free Software Foundation.

In her talk on TEX and hypertext, *Christine Detig* (University of Darmstadt) gave several definitions of hypertext, and discussed advantages and disadvantages of the hypertext approach. The conclusion of her talk was that the future of electronic publishing *could* be an interwoven electronic process with the following elements: (1) hypertext and logical markup, (2) TEX for typesetting, (3) drivers for various screen and printer types. One criticism: discussions about 'hypertext' can only be useful if all people attending the talk have *seen* hypertext – describing it on paper or transparencies is certainly not enough to get an idea of what it is, or what it can be.

Les Carr (University of Southampton): 'Experiments with TEX and hyperactivity'. Les Carr reported on work, done by Sebastian Rahtz and him, based on the question: How can existing (TEX) marked up copy be used in a hypertext system? Particularly amusing was the division of users/developers of these kinds of systems into the 'fluffies' and the 'technoids'.

Problems tackled include the use of TEX to format text being displayed on screen in variable sized windows, embedding generic hypertext navigation tools in the source and using a single source to generate both printed and hypertext versions of a document.

The authors concluded with: 'It is clear that TEX in a hyperactive world can only survive in a generic markup form such as LATEX. Much of its power (such as pagination) is irrelevant in this context, and its implementation language will continue to put off many potential designers. But TEX retains a raw beauty of its own, and if we decide that the hyper systems we build must have a formatting engine behind them, we are confident that TEX will continue to be the first choice for many years to come.'

The talk by *Johannes Braams* (PTT Neher Laboratory), 'The Dutch N ational LATEX effort" was a report on the work done by working group 13 of the Dutch TEX Users Group. He discussed the development of a set of document styles that are compatible with the standard document styles of LATEX, but have a layout that appeals more to Western-European tastes, and the work on 'internationalizing' LATEX, i.e. adding tools to LATEX that allow an author to switch between different languages, a project that bears the appropriate name 'Babel'.

Adrian Clark (Essex University): 'Documenting a TEX archive'. The key issue addressed was: 'An archive

This interim report will finally be published in Malcolm Clark's favourite magazine: TEXline.

is only as good as its documentation.' Where is the archive? How to locate the software? How to get it across? The emphasis was put on the second question. Experience has it that *functionality* requests precede name requests. Keywords and help systems are the tools, along with the good old systematic index, provided there is a generally accepted one. The author reported about a proto system for automatically maintaining the 'index' of the archive, the help system etc. In order to have this kind of systems working, contributors must be persuaded to obey the submission rules: along with the software, documentation in a certain standard format must be supplied. Perhaps overlooked is the issue of a general accepted classification index. Even within the field of numerical software several indices are around.

During the lively discussion after the presentation, useful ideas about what users would like to see were proposed, ranging from:

- the ideal situation, just your own local archive 'at the corner' with *virtually* everything,
- to documentation requirements (time stamps, version indication, minimal tests, quality, refereeing, etc.).

Nelson Beebe mentioned the synchronisation effort of the various archives and the TUGlib project. These projects have the same kind of problems.

Tuesday, September 11

Thomas Kneser (GWD Göttingen), the first speaker on Tuesday morning, presented an adaptation of the work of Thomas Reid to a LATEX context. Thomas Reid has developed macros that allow to have paragraphs of text to 'wrap around' figures. Thomas Kneser showed that these macros can be successfully adapted to the LATEX case. However, in some cases a certain amount of cheating is necessary to get the desired result.

In his talk, 'The document style designer as separate entity', *Victor Eijkhout* (TEXTechniek) discussed the need for a separation of all tasks in a TEX-based system in three 'layers': (i) the author, who uses a document style prepared for a certain class of documents, (ii) the document-style designer, who creates a document style from a TEX-based toolbox, and (iii) the TEX expert who creates and maintains the toolbox. He argued the need for a programmable toolbox, so that the style designer could write TEX macros without programming in TEX; this point was illustrated with examples from a format the speaker developed.

'QuickDraw, PostScript, TEX' by *Tim Murphy* (Trinity College Dublin) was a rather confusing talk. Afterwards I was unable to summarize what it was he had tried to tell us. A lot, I know, but it lacked coherence. What I did pick up was this: he loves GRIF, but hates SGML, for reasons that are still unknown to me. He appeared to be in favour of the work, done by a Euromath committee, on defining a complete syntax of mathematical formulae for GRIF. He advocated the basic idea of GRIF of letting a document be generated by a context-free grammar.

M. Maclenan (South Bank Polytechnic) considered himself to be very new to TEX and definitely not an expert, but he showed some very interesting TEXnical stuff. At the South Bank Polytechnic there arose the need for a tool for drawing circuit diagrams for text books. PICTEX, although it requires a lot of memory and is rather slow, can produce impressive full-page circuit diagrams. The speaker showed that a form of object-oriented programming can help a lot. In the discussion after the presentation, speaker and audience came to the conclusion that an interesting extension – and a possible time-saver – would be a collection of symbols and parts of diagrams created with METAFONT. Another future development could be integration of TEX with a CAD package: extract a list of (x, y) coordinates from the CAD programme and use this as input to a TEX macro package.

The talk by *Rainer Schöpf* (University of Heidelberg), 'Towards LATEX 3.0', was a list of ideas for the new version of LATEX. He outlined some ideas for a future version of LaTeX, but cautioned that none of these ideas were definite yet. Much importance will be given to the style designer interface.

For about a year now, Frank Mittelbach and Rainer Schöpf, have been discussing ideas – mostly via electronic mail – for a new version of LATEX with a group of TEX, LATEX and document-style experts in Europe and the United States. A proposal for the new design and a few prototype parts of the new package are expected shortly.

The presentation of *Brian Hamilton Kelly* (Cranfield Institute of Technology) was the last one before the visit to Blarney castle in the afternoon. His presentation focussed on a new public domain implementation of TEX 3.0 and METAFONT 2.0 for VAX/VMS. The distribution contains normal and 'big' versions of TEX, LATEX and SliTEX. Useful facilities: TEX's e option really works, TEX, LATEX and SliTEX now available as VMS command verbs. It has recently been extended by Don Hosek and is now also the DECUS implementation.

Wednesday, September 12

Malcolm Clark (Imperial Cancer Research Fund Labs), was kindly asked to change the title of his presentation, 'Post Congress Tristesse', even though most attendees didn't understand why. His presentation was a very enlightening one for those TEXies interested in doing book projects with TEX. The topic of his talk was the process of making the proceedings of the TEX'88 conference at Exeter ready for publication. To discourage anyone with ideas of being an editor in the near future, here's a list of the problems Malcolm described:

- variations in medium (disk, electronic mail and even paper)
- character coding (ASCII, EBCDIC)

- late submission (please wait—wait some more—nag— threaten to print just the abstract)
- input form (plain TEX, LATEX). In the end, everything was converted to plain TEX with additional macros to reproduce a layout similar to the layout of Addison-Wesley's computer science series.
- a professional indexer was hired to compile the index afterwards: the result was bad.

An important decision: do you referee papers or include all of them? The speaker's view was that you should not edit or referee a paper: if someone wants to present work with TEX or METAFONT, he or she should be free to do so. Removing syntactical errors is acceptable, any further editing of the English – or almost English – isn't.

A matter of style: who determines the layout, the editor or the author? Answer: the editor, so the authors should not markup (too much). In some cases plain ASCII is better than **TEX.

Finding a publisher: Addison-Wesley (not interested), Springer (no contacts with them), John Wiley & Sons (never publish proceedings). Finally Ellis-Horwood published the proceedings. Advantages of E-H: no control, you can do whatever you like as editor. Disadvantages: you have to do everything, upto and including producing the bromide!

Conclusions:

- Publishers like it when authors do all the work *for them*, which is a really funny view!
- Publishers should not accept 300 dpi camera-ready copy, since this is without exception of appalling quality.
- Computer Modern is an excellent font at 1270 dpi, but looks horrifying at 300 dpi. Books produced from low-resolution output are no advertisement for the high quality of TEX's typesetting.
- Adobe and other font producers still have to come up with a nice font that includes math!
- Copy editors are essential. However, some publishers accept manuscripts in electronic form, or even offer the possibility of electronic mail submission, and then eliminate technical editing from the publication process.
- Working with other amateurs on any project means sooner or later that they withdraw as soon as other things become more important.
- Expect no thanks.
- It's fun!

'TEX & SGML' by *Kees van der Laan* (University of Groningen) was a talk that could have been more interesting if more people in the audience would have had some experience with SGML. It is not enough to give the following description: 'SGML is a meta-language that is a means to express your thoughts on the entire lifecycle of documents', that serves as a standard for tagging and interchanging documents, and that provides a mechanism for representing special characters, tables, and mathematical and chemical formulae, using ASCII coding. The speaker has recently investigated the problems with conversion of material coded in TEX or LATEX to SGML, especially mathematical formulae and tables.

If SGML becomes a household word in electronic publishing and publishers provide their authors with *document type definitions* (dtd's), authors have to be aware at all times of this dtd and the tags, entities and attributes it defines. The publishers need standardized general-purpose dtd's or SGML experts who develop new dtd's.

Another problem of using SGML for the coding of mathematical formulae and tables is the apparent impossibility of separating form from content.

Publishers and other users of SGML often state that one of the advantages of SGML is that it allows one to store information such that it can be used for other purposes later on. One of the conclusions of the speaker was that re-usage is maybe not that important since scientists tend to continually rewrite and update their articles and books. Another conclusion was that the meta-ness of SGML is a strong point of SGML, but at the same time also one of its weakest points.

Olivier Nicole (INRA) presented another use of the PICTEX package. He used it to printing graphs that were generated by the statistical package S. From both talks on PICTEX at this conference it became clear that it is a very useful and powerful package: the PICTEX macro package can be found in several electronic archives, and there is a very good manual available. However, it is very slow, you need a big version of TEX and a 10 kb `tex` file can result in a `dvi` file that is ten times as large!

The rest of the day was devoted to font design with METAFONT and various applications of such fonts.

Alan Hoenig (CUNY) presented a solution to the problem of labelling figures in TEX documents. His message was: graphics are no longer a problem for TEX (?), but the problem is to get labels in the figures that use the same font as the text. The basic strategy is the following: create a picture with METAFONT, write the coordinates of points to be labelled as `fontdimen`'s to the `tfm` file. In the TEX document you pick up the x and y coordinates from the `\fontdimen`'s.

METAFONT lacks read and write operations, so (ab)using the `tfm` file for this purpose is the easiest solution. Furthermore, writing a parser in TEX to decode information in the log file of a METAFONT run would be, to say the least, cumbersome.

Final remark: to make it easier to use METAFONT for creating all sorts of pictures, one needs a macro package 'on top' of it, similar to LATEX 'on top of' TEX.

'Typesetting Old German' by *Yannis Haralambous* (Université de Lille) was one of the nicest talks of the entire conference. It was awarded the prize for best presentation at this conference. The speaker started out by observing that many people believe that old (early) music can be best enjoyed when played on old instruments. If you draw a parallel with reading old texts: these can maybe be enjoyed more when they have been printed with old typefaces. The speaker showed pages from the Gutenberg 42-line bible and a book by C.Ph.E. Bach. To re-create these texts, the speaker has designed METAFONT fonts for Gotisch, Schwabacher, Fraktur and ornamented capital letters – the ornamented capitals where beautiful and extremely well done, enough for a big round of applause. While working on the Fraktur it turned out that the old designers applied Bezier curves without knowing it: a lot of the curves can be specified by only a few pen positions.

As an aside the speaker has also created an Arabic font, of which he also showed examples. His next project will probably Renaissance Greek, where you need a font with ± 400 ligatures.

Mícheál Ó Searcóid began his presentation 'Irish letter forms with METAFONT' with a short history of writing in Ireland. Elizabeth I ordered the design of an Irish typeface, modelled after written letter forms. Use of this typeface started around 1571. Through history there have been several re-designs. After the historical introduction, the speaker showed an example of modern Irish letter forms, created with METAFONT.

The next presentation, on 'An international phonetic alphabet', was by *Dean Guenther* (Washington State University) and Janene Winter. Dean is manager of the project and Janene was the METAFONT specialist. The project was started because of frequent requests from the humanities departments. At first, some papers were published with Computer Modern fonts and handwritten phonetic symbols. Later on, phonetic symbols were created as bitmaps. However, these only looked good with Almost Modern Roman, so a new font was needed when people started using CM. There were lots of obstacles: MF-84 came when Janene had just learned MF-79, there was no help on campus, there was no previewer. But the result is an IPA font, to be precise: a 128-symbol subset of one of the varieties of IPA.

Since Janene now works for the AMS, the work on the IPA project has unfortunately stopped. At the State University of Washington a different IPA project has started, partially based on the work done at WSU.

Adrian Clark (Essex University): 'Halftone output from TEX'.

Thursday, September 13

Nico Poppelier (Elsevier Science Publishers): 'SGML & TEX in scientific publishing'. This presentation was non-technical. The speaker's idea was not to discuss the 'What and how?', but the 'What and why?'. What can SGML mean to a publisher, i.e. what role can it play? SGML and TEX can be be a nice combination, but so can combinations of SGML with other sophisticated text-processing systems and/or typesetting systems.

The speaker also discussed

- some of the advantages of LATEX over plain TEX, both for journal and for book publishing, and
- other uses of TEX within Elsevier Science Publishers, namely as the back-end of a database-publishing system

The presentation by *Amy Henrickson* (TEXnology), 'Getting TEXnical' was a 30-minute crash course in TEX macro writing. A series of useful techniques, lots of examples, a few basic and a few not-so-basic TEX tricks. Interesting talk, but with a very high pace.

Frank Mittelbach (EDS, Rüsselsheim) intended to give a talk 'New BibTEX requirements' instead of having an open discussion with this title, as was announced in the program. The main points of Frank were that

- BIBTEX is not suitable for applications in the humanities or, e.g., for books with bibliographies in every chapter
- BIBTEX does not fit well with LATEX 3.0
- adapting BIBTEX to other languages than English is not always possible

He proposed several major changes to BIBTEX; the complete list is too big to be repeated here, but the paper will appear in the proceedings.

The title of the presentation by *Angela Barden* (City of Cork Vocational Education Committee) was intriguing: 'Purchasing pain with all that joy'. It turned out to be an interesting, and sometimes amusing, examination of several books on TEX. The speaker, who is a teacher of reading skills, examined the following books:

- 'The TEX book' by Don Knuth. It tells lies and jokes (even in the index, where it is out of place), hides information in exercises, contains exercises that are too difficult, the often confusing dangerous bends, and conflicting instructions. On the whole, a user-unfriendly book.
- 'The Joy of TEX' by Michael Spivak. The first exercise in the book was pointless, so why do the others? And the answer given in the back was wrong and unintelligible. The term 'macro' is never defined. 'Maybe it helps mathematicians, but not me', was the speaker's conclusion.
- The PC-TEX manual, by the same author. A page-numbering scheme and a confusing structure. For example: there is an appendix A and an appendix F, but no other appendices. The speaker abandoned the book at an early stage.
- 'LATEX user's guide and reference manual', by Leslie Lamport. The speaker was grateful to the author for his straightforward way of presenting information. No tedious exercises, a no-nonsense way of writing, clear concise prose.
- 'TEX for the impatient', by Abrahams, Hargreaves and Berry. Not radically different from the other books. A dull layout, an enormous amount of print

on a page, turgid style, but not as bad as the other books.

- 'A gentle introduction to TEX', by Michael Doob. Not a bad book, but unfortunately there are exercises.

Advice for future books: tell no jokes, be careful about the imagery you use (if TEX has eyes, mouth and stomach, what is the analogon of `\shipout`?), use shading or another technique to distinguish input from output, use illustrations to clarify concepts, separate text book from manual, give more examples, don't hide information in exercises.

In his presentation 'TEX in schools, just say no', *Konrad Neuwirth* argued against teaching TEX in schools. There doesn't seem be a class where TEX would be appropriate: it doesn't teach you anything about math, writing math or physics reports with TEX in class takes more time than the usual 50–60 minutes, and as an instrument in teaching aesthetics TEX is also questionable, since most TEX documents look horrible to a trained eye. Furthermore: TEX is not the most user-friendly of programs.

Philip Taylor's talk 'Improving the æsthetics of mixed font documents' was an account of the work on the book 'Principles of nutritional assessment', which was recently published by Oxford University Press. According to the speaker, Don Knuth's final exhortation in the TEX book, 'Go forth and create masterpieces of the publishing art', has developed into 'Go forth and create horribly looking books that shriek TEX(LATEX)!'

Letting TEX typeset a book with a pleasing design, using Postscript fonts (Times Roman) for text and Computer Modern for math, and with lots of tables and illustrations turned out to be a far from trivial task. The resulting book was passed around during the presentation and proved to be an attractive book, impeccably reproducing the sort of looks one expects from the Oxford University Press, where it was published. One small criticism: Philip had forgotten to turn on `\frenchspacing`.

After a rather long introduction on the history of various page patterns and the document types in which they occur, the next speaker, *Alan Wittbecker* (DEC), came down to business: 'ArchiTEX as an international page pattern maker'. ArchiTEX is a macro package that he developed to re-create the variety of page patterns he described, using TEX. For that, a rectangular grid is put 'on top of the page'. To every intersection point of the grid a box of text can be attached.

The last presentation of the conference was 'Integration of graphics into TEX', by *Friedhelm Sowa*. The idea behind the speaker's approach is to convert the output of graphics packages, in this case files in `tif` format, to TEX's `pk` files. A picture is divided into tiles of certain dimensions, and the tiles are converted to characters in a TEX-type font. TEX is then used to glue the tiles together to produce the original picture. The speaker discussed various methods of obtaining half-tone pictures, with varying number of grey shades and with or without error distribution, and showed several examples.

Birds-of-a-feather sessions

The organisers of a TEX conference had a golden moment when they came up with the idea of bof. The idea is simple: on every day of the conference programme the organization allocate one or more time slots of, say, half an hour. Anyone with ideas for a discussion can allocate a time slot and . . . just go ahead! In other words: the programme provides time especially for informal or improvised discussions.

At the Cork conference, there were birds-of-a-feather sessions, or bof's, on graphics, the future of TEX, and LATEX 3.0. The bof on the future of TEX was especially interesting, since it became a three-hour discussion that resulted in a petition to the board of TUG and Don Knuth, signed by some 25–30 concerned TUG members.

One of the major problems at present is the fact that the creators of TEX, LATEX, BIBTEXand MakeIndex have, for various reasons, decided to stop working on their programs. In some cases they have announced that they consider their programs as mature, i.e. will not develop them any further. This is a matter of great concern to many TUG members and to the board of TUG as well.