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The first Dutch T_EX days

a report by Victor Eijkhout and Nico Poppelier

1 Introduction

The Dutch TEX Users Group, in Dutch 'Nederlandse TEX Gebruikersgroep' or NTG, was started about one year ago in Groningen. At the meeting in the autumn of 1988 it was decided to have a first presentation to 'the outside world' in the summer of 1989. Three people from the University of Utrecht volunteered to organize these first 'Dutch TEX days' and suggested June 29 and 30, in the Utrecht University computer centre.

After some thought the organizers decided upon a two-part programme: the first day would consist of two courses – one for beginners and one for experienced users – and the second day would consist of various presentations.

2 First day: ATEX courses

The NTG members who were invited to teach the courses – Jan Luyten (Computer Centre, University of Groningen) and one of the authors (NP) – suggested that, since in the Netherlands \LaTeX is used more than plain \Tau EX, the courses on the first day should be \LaTeX courses. Therefore the organization settled upon a beginners' course, which would focus on presenting examples of the possibilities of \LaTeX by means of examples that the students could try out themselves, and an expert-level course, that would focus on \LaTeX document styles.

The two groups that gathered on June 29, twenty-seven people in the beginners' course and nineteen in the document style course, were very enthusiastic. The beginners' group, which consisted of secretaries, employees of Elsevier Science Publishers and various other people, even insisted on getting back to their pc's half an hour earlier after lunch.

During lunch and the breaks for coffee and tea there was also enough time for discussions and problem solving. At the end of the day organizers, teachers and students decided that it had been a successful day: plans were made to improve the course material, to add a course for advanced LATEX users and to teach these courses again next year.

3 Second day: presentations

On June 30 some sixty people gathered to attend the opening address by Kees van der Laan, chairman of the NTG, an invited talk by Malcolm Clark, TUG's European coordinator, and ten contributed talks which were given in parallel sessions. As 'guests of honour' Joachim Lammarsch and Luzia Dietsche, chairman and secretary of Dante, the German TeX users group were present.

3.1 Opening talk - Kees van der Laan

In the opening talk, Kees van der Laan, chairman of the NTG, summarized the short history of the NTG and presented the list of working groups of the NTG. Most of these working groups have been rather active in the short period since the NTG started and a lot has been achieved already:

- material for introductory meetings and courses has been developed
- there is a *Bitnet* discussion list, called tex-nl which is now an *open* list where questions are usually answered within a few hours by some of *NTG*'s more experienced members
- since a few weeks there is also a file server where so far hyphenation patterns and style files can be found, but where more material will be added in the near future.

Kees van der Laan also mentioned that there are now firm contacts with the Dutch SGML users group, and that most likely next year's presentation of the NTG will be a joint one of the Dutch SGML users group and the NTG.

He concluded by saying that the NTG, a young and energetic users group, will try to establish contacts with other user groups in Europe, such as the groups in Germany, France and the Northern-European countries.

3.2 TFX in Europe & TFX in the future - Malcolm Clark

Malcolm Clark, TUG's European coordinator, spoke about the importance of organization in the world of T_EX and, especially, the need for European T_EX users to organize and to present themselves. He stressed the point that, if European users feel that TUG should pay more attention to what is happening here, they should become TUG members.

He also tried to answer the question 'Why does TEX get bad publicity, or none at all?'. His answer was that the TEX users just do not write often enough that TEX is a marvellous and powerful document production system, which features things that other programs are just beginning to show – and guess where they got the idea from? He added that TEX is a de facto standard, a fact that is too often ignored.

3.3 From SGML to TeX and vice versa – Jos Warmer

At the invitation of the NTG working group on the T_EX -SGML relation, Jos Warmer, who has been involved in an Amsterdam project for the implementation of an SGML parser, gave an introduction to SGML, briefly explaining document type definitions and the mechanism of tags and end tags. As an example he showed the title page of his lecture in both $I\!A\!T_EX$ and SGML form. He then explained that an SGML parser primarily tests on whether the SGML document conforms syntactically to the document type definition. However, as a further elaboration of the earlier example showed, a simple substition mechanism seems almost to be able to perform a translation from SGML to both T_EX and Troff.

Jos Warmer concluded by indicating some of the problems involved in the translation from SGML to T_EX and vice versa – where in his opinion the reverse operation is the more difficult one. He mentioned the problem of T_EX 's special characters, which necessitate insertion of backslashes, the need to specify a syntax for mathematical formulae in SGML for translation to Eqn or T_EX , the fact that the choice of back-end – for instance $I_E^AT_EX$ – already influences the structure of the document type structure, and he suggested that the translation to T_EX may very well need to be context-sensitive because of such idiosyncrasies as the gobbling up of spaces after T_EX commands.

3.4 DTP versus T_EX- Ad Emmen

The speaker, who works in the Amsterdam universities' computer centre and has ample experience with both desktop-publishing programs and TEX, talked about the general features of desktop publishing programs and the relative simplicity with which you can integrate text with graphics. He then discussed the differences between dtp systems and TEX/IATEX, and their respective advantages and disadvantages.

Ad Emmen concluded by giving examples of cases where T_EX/IAT_EX is to be preferred and cases where he considered dtp systems to be a better tool.

3.5 Metafont – Walter Jaffe

Some time ago Walter Jaffe finished a very nice-looking Hebrew font, suitable for reproducing texts from, e.g., the Jewish Bible and Talmud, since it contains the characters for the consonants as well as for the vowels.

He started his presentation with a short introduction to MF, the nature of the language, the process of designing letters in MF, and presented his work on Hebrew characters.

3.6 T_FX's hyphenation algorithm - Gerard Kuiken

Gerard Kuiken, author of a 5000-item list of hyphenation patterns for the Dutch language – generated by hand! – discussed in detail the line breaking algorithm of T_EX and the computation of demerits therein. He then explained the hyphenation algorithm and the compact storage that T_EX uses for both these patterns and the hyphenation exceptions.

The last part of his presentation focussed on the particular difficulties of hyphenating the Dutch language. In Dutch, words are on average longer than in English, and situations abound where a hyphenation may be morphologically correct but semantically unfortunate, the classic example being the compound word bet-o-ver-groot-moe-der ('great-grandmother') where the first part of the compound betover means 'bewitch' and hyphenating after beto suggests a similar continuation.

The speaker treated in detail the example ver-kleden ('change dress') versus kerk-leden ('church members'), which is treated correctly by his patterns, but on which even a recently compiled set of patterns, derived from a list of 350000 hyphenated words, fails.

3.7 Simple T_EX- Andries Lenstra

While the Dutch TEX days had in general a bias towards IATEX, Andries Lenstra's lecture was solely concerned with Plain TEX. However, he started out by criticising the way Plain TEX is often used, namely as a deluxe typewriter, with people interspersing the input with skips and explicit font changes. Like the speaker before him, Auke van der Groot, who talked about a macro package for user manuals, Andries Lenstra stressed the need to separate the logical structure of the document from its visual structure: an author need only be concerned with getting his message across, and must leave typography to people qualified in that respect. If an author is also the macro writer – as in the case of this speaker – he must try to keep as many degrees of freedom open as is possible, and confine the actual visual commands to a section containing what Andries Lenstra called 'the tuning knobs'.

He illustrated this by means of his macro package 'Simple.TEX' – of less than 10k size – that he developed when writing the course material for a statistics class he teaches. He treated in some detail the way his macros cope with the problems of optional arguments, when, for instance, only in the case of two consecutive non-empty arguments a separating space needs to be inserted.

3.8 Transparencies with IATEX-Kees van der Laan

Kees van der Laan, who is involved in teaching various courses and is also a member of the NTG working group on course material, presented a small package, in the form of a IATEX document style, for developing transparencies to be used in teaching courses. In this lecture Kees van der Laan explained how to use the macro package and discussed the philosophy behind the transparency document style, which is of course based on the notion of separating logical structure from visual structure.

3.9 TeX for the Dutch language - Victor Eijkhout

This lecture, an official presentation of one of the working groups of the NTG, consisted of an inventory of the collective efforts of three members of working group number 13 and a project not related to one of the NTG working groups. This latter item concerned the public availability of a new list of hyphenation patterns for the Dutch language, which was compiled using PATGEN on a list of 350000 hyphenated words. Even this list, however, is not quite up to the problems associated with compound words in Dutch. An extra problem is that its size requires recompilation of both IniTeX and TeX.

Victor Eijkhout then presented three \LaTeX style options that remedy some acute problems: first of all the option dutch replaces in all four standard \LaTeX styles the definitions containing English words such as 'Contents', by parametrized definitions and sets the parameters initially to Dutch values, but English settings are included as well. The style options a4 – not the one by John Pavel – and sober then set the page size to European standards and reduce white spaces and font sizes in the standard \LaTeX styles.

In the third part of his lecture, the speaker discussed why the layout of, for instance, the article style of IATEX is unacceptable for Dutch use, and he presented an artikel style—currently under development—that is compatible to article, but which has a different layout. His conclusion was that the flexibility of IATEX is in part illusory: in order to achieve certain effects it has turned out to be necessary to rewrite certain macros contained in latex.tex, including them in the new style file.

The speaker conluded his talk by mentioning that all of the above items are freely available on the recently installed Dutch tex-nl fileserver, and gave the appropriate commands for retrieval.

4 Other topics

Apart from the parts of the programme we wrote about in some detail, there were also presentations of AmigaT_EX, various applications of IAT_EX, and the use of T_EX in preparing company manuals.

During the entire day there were also various vendor presentations in the computer centre by, e.g., the local Atari dealer and Hewlett Packard.

In the computer centre there was a stand with reports and various other publications on T_EX , IAT_EX and SGML, such as a Dutch book on IAT_EX , 'Publiceren met IAT_EX ' ('Publishing with IAT_EX), written by NTG members from Groningen, and a report written by NTG members and IAT_EX users from Utrecht and Amsterdam, discussing IAT_EX and the differences between IAT_EX and desktop-publishing systems.