

## 1991 TUG Elections Procedure for nominations

Pierre MacKay  
Chair, TUG Nominating Committee

The 1991 elections will take place at the annual meeting, to be held in Dedham, Massachusetts, July 15-18, 1991. Elections will be required for all four officers: President, Vice-President, Secretary, and Treasurer.

It is the intention of the Nominating Committee to provide a slate of two candidates for each office. The bylaws provide for additional candidates to be nominated by petition to the Nominating Committee at least 30 days prior to the election, signed by the candidate and two other members in good standing.

In order to permit the slate to be published in the spring issue of *TUGboat*, the Nominating Committee hereby solicits suggestions and nominations for candidates, to be returned as soon as possible, but no later than April 2.

The names of candidates and petitioners should be submitted in the form shown in the TUG membership list or on a *TUGboat* mailing label; for each name, a full mailing address should be provided, and a signature should accompany every name. For candidates, a phone number and e-mail address, if available, would be helpful.

For a candidate whose name is submitted as a suggestion and not in the form of a petition, the Chair of the Nominating Committee will ask the candidate whether s/he will be willing to serve in the office for which the nomination is presented. This procedure can be facilitated by inclusion of a signed statement of consent from the proposed candidate.

It is recognized that past election procedures have not permitted members to vote for officers unless they attend the annual meeting. The bylaws state only that elections must be by secret ballot. Alternate procedures are being examined to determine whether wider participation can be accommodated. Any change in procedures will be announced in *TUGboat* 12, no. 2.

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## TeX in Czechoslovakia

Jiří Veselý

When President Václav Havel returned from the United States he reported that Czechoslovakia had again become popular with the Americans. This was one of the reasons why I started to write a report about TeX in this country. I promised to do so about a year ago but at that time I felt that it would hardly be of interest to the (probably mostly American) readers of *TUGboat*. Since that time have we found out that TUG was much more interested in supporting local groups in Eastern and Central Europe. This was one of the motives that encouraged us in our effort to create an independent Czechoslovak organization of TeX fans.

On May 9, 1990, a branch of TUG was registered in Prague. It was the last formal step required to give the group an independent and legal status. What preceded? My account will not necessarily cover all activities, but I hope it will be relatively complete. As far as I know the first practical meeting of TeX by Czechs was realized by mathematicians and physicists during their stays abroad. For a long time it was just something rather interesting but not importable to Czechoslovakia (an implementation of TeX on an abacus is unknown even now). Even a year after opening borders the standard PC AT in Czechoslovakia costs approximately as much as the Czech car "Škoda" and the number of laserprinters in the biggest and oldest Czech University in Prague (Charles University was founded in 1348) is rather small.

When the first PCs appeared in Czechoslovakia about 4 or 5 years ago the way to using TeX was open. At that time a few people in the Mathematical Institute of Charles University in charge of publishing the mathematical journal "Commentationes Mathematicae Universitatis Carolinae" (CMUC) decided to improve the appearance of the journal. We found that the articles which appeared in the Notices of AMS were very helpful and after several consultations with friends from the western universities we decided to replace the old technology by TeXnology. It took a year to acquire two PCs and HP LaserJet Series II and then we could start. We bought PCTeX from Kettler (FRG) to begin the marvelous adventure known already to most of you.

The group of people interested in TeX has grown rapidly. Since mid-1988 seminars have been organized among mathematicians. Also physicists

and some linguists started to be active in the  $\text{\TeX}$  field. The endeavor of Jaroslav Nadrchal led to important international contacts and some lecturers of the seminar in Skalský Dvůr reported to TUG about the growing interest in  $\text{\TeX}$  in Eastern European countries. Since the beginning of 1989 CMUC has been prepared exclusively with the help of  $\text{\TeX}$ . Our first contacts with TUG were not quite successful, but that changed: we are receiving the *TUGboat* in exchange for CMUC.

Shortly before the Revolution (the so called “velvet”, not “Great”, which is used for the Great Red October Revolution) in November 1989 we established a group of  $\text{\TeX}$  users within the Czechoslovak Union of Mathematicians and Physicists, which is our analogy of AMS. Since we want to be open also to people working in other fields, we decided to create an independent organization “Československé sdružení uživatelů  $\text{\TeX}$ u” (CSTUG). It is also open to people and organizations abroad. The address of it is as follows:

CSTUG  
 c/o MÚUK  
 Sokolovská 83  
 CS-186 00, PRAHA 8  
 Czechoslovakia

I would like to mention some people who helped us very much: Michael Doob (we translated his text “A Gentle Introduction to  $\text{\TeX}$ ” into Czech); Jon Radel, who kindly sent us a lot of public domain  $\text{\TeX}$ ware; Barbara Beeton, Malcolm Clark and Hubert Partl.

Since a lot of the Czech letters have accents, automatic hyphenation was a problem; on the other hand, all letters are printable with standard  $\text{\TeX}$  with accents  $\backslash'$ ,  $\backslash v$ , and  $\backslash\text{accent23}$ . Hyphenation patterns for Czech had already been generated: at first ad hoc after grammar rules by Ladislav Lhotka and then with the help of modified *patgen* by Petr Novák. Don Knuth's decision to modify  $\text{\TeX}$  was appreciated very much. The new 8-bit  $\text{\TeX}$  has already reached Czechoslovakia. Now a new “bilingual version” (Czech—English, not Czechoslovak) is available for everybody willing to start on public domain software. Besides, our organization has no “hyphen problems”, it is one for the whole Czechoslovak federation.

Two representatives of CSTUG visited the  $\text{\TeX}90$  conference in Cork and this again would not be possible without the help of TUG. The first general assembly of new independent CSTUG took place on November 10, 1990. We are going to keep contacts with TUG and national  $\text{\TeX}$

groups from other countries. We would like to organize a meeting in Czechoslovakia as a part of the traditional meeting of physicists at Skalský Dvůr. Economic changes make it more difficult, but we hope it will take place in September 1991. In virtue of the agreement from Cork we hope to get several copies of *TUGboat* as a collective member of TUG. A lot of friends from European organizations promised to help us and some have already done so. We already have also a small booklet in Czech on  $\text{\LaTeX}$  and another booklet on  $\text{\AMS-TeX}$  is forthcoming. We would be grateful for any public domain  $\text{\TeX}$  software (we already developed some things existing for a long time abroad) and texts in the public domain on various aspects of  $\text{\TeX}$  which we might translate into Czech. I would like to thank our  $\text{\TeX}$  friends and supporters for their help and on behalf of Czech  $\text{\TeX}$  fans I end with the wish to see many of you in Czechoslovakia in the near future.

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### Upgrades of $\text{\sbTeX}$ and $\text{\sbMF}$

Upgrades of  $\text{\sbTeX}$  and  $\text{\sbMF}$  for MS-DOS PCs are available by anonymous FTP from

Yale.YCC.VENUS.EDU

as *SB34TEX.ZIP* and *SBMF12.ZIP*. These are also available from SIMTEL20. The Aston repository keeps these files in BOO form. Also available from Aston is a provisional MS-DOS version of  $\text{\TeX-XET}$  contained in *SB32XET.BOO*.

– Wayne Sullivan

Editor's note: The program announced below is still under construction. The author has expressed an interest in hearing from anyone who has done or is doing work in this area. The TUG office would also appreciate receiving such information, which will be kept on file as a resource for answering future inquiries.

## TEX TALK

T. V. Raman

### Abstract

Traditionally books have become accessible to the visually handicapped only after they have been either published in Braille or more recently after they have been recorded in Talking Book format. However not all publications can be made accessible in this manner, and this still means that the choice of reading material available, especially in the technical fields, continues to be severely restricted. The fact that more and more publications are first written by the author using a computer along with the development of voice synthesizer technology presents us with an excellent opportunity of overcoming this problem.

Several advances have been made during the past few years using voice synthesizer technology and optical character recognition culminating in the development of reading machines. These machines can read out printed matter, provided the quality of printing is extremely good. They also suffer the disadvantage that special characters such as those occurring in mathematical texts continue to present a problem. For material published before the time when books and papers were written using the computer, this approach is perhaps the only way out. However the fact that more and more publications are available in electronic form needs to be exploited as there is no point in trying to reconvert something that is already available in computer readable format using optical character recognition.

This of course leads us to the problem of reading TEX source directly using a talking computer. TEX has the advantage of representing all special symbols, using special names that are formed using the letters of the alphabet along with a few extra special characters. Thus the Greek letters, which are ubiquitous in any mathematical text and present severe problems to any reading machine, are already present in the TEX source in a format that can be read out by a voice synthesizer. However we also need to take account of the fact that a TEX source

file is adorned with a lot of special characters that can sound extremely confusing if read out by the synthesizer.

We of course have the option of stripping away all these extra characters from the TEX source, but by doing this we would actually lose valuable information that is being given to us for free. There is enough information present in a TEX source file to enable a printer to lay out mathematical formulae, so that information should certainly be useful in transforming the text to a format that would be comparable to what a person reading out the printed text aloud would generate.

Consider the following example:

$$\frac{1+\sqrt{5}}{2} \quad (\backslash\frac{1+\sqrt{5}}{2}\backslash)$$

This is what the above expression sounds like when read out by a voice synthesizer:

backslash left paren backslash frac leftbrace  
one plus backslash sqrt leftbrace five right-  
brace rightbrace leftbrace two rightbrace  
backslash right paren .

It certainly sounds extremely mysterious! Instead consider the following piece of transformed text:

The fraction with numerator 1 + square root  
of 5 and denominator 2 end of fraction.

This certainly compares very well with what a person reading out the printed text resulting from the TEX source would say.

Similarly  $A \subset A \cup B$  is transformed to "A is a subset of A union B".

TEX TALK is a program that looks at the TEX source and carries out transformations like the above. The resulting text is much easier to understand when read out by a voice synthesizer. As becomes evident from the introductory paragraphs, the potential presented by this kind of software is enormous. The program as it currently stands is eminently usable but there is certainly a lot more work to be done on it. When complete it will perhaps result in something I have always hoped to achieve, namely to have the same kind of access to published material as anyone else.

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