

Cahiers **GUT** *enberg*

∞ TECHNiques IN SIBERIA

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Cahiers GUTenberg, n° 10-11 (1991), p. 7-13.

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TEXniques in Siberia

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Abstract. This article summarizes the problems of giving a \LaTeX course in Siberia. It concludes with an overview concerning the future of \TeX inside the USSR.

Résumé. *Nous présentons dans cet article les problèmes liés à l'enseignement de \LaTeX en Sibérie. Nous concluons par un survol de l'avenir de \TeX en URSS.*

Key words: \LaTeX , training, USSR

1. Introduction

My visit to Siberia in 1983 led to a long standing friendship with Siberian scientists. Mutual visits have since occurred frequently. During a Russian high-school computercamp at Ob Lake in 1989, which i attended with eight Dutch students, i surprised my Siberian hosts with the power of \TeX . In Novosibirsk \TeX was mainly known because it was written by Donald Knuth from Stanford University with which Novosibirsk University has an exchange program.

In November 1990 Dr. Anatoli Urvantsev¹ visited the Netherlands. During his visit he attended a meeting of the Dutch TeX Users Group (NTG), where he again became attracted to the power of \TeX . Together we discussed the possibilities of \TeX and especially the use of \TeX in Siberia.

Urvantsev is working in the science city Akademgorodok, 30 kilometers South of the "Chicago" of the USSR: Novosibirsk. The level of Science is rather high, illustrated by the fact that Akademgorodok host about 100 international, USSR and regional conferences a year. Quick, high-quality publishing of proceedings is difficult and we agreed that \TeX or \LaTeX could simplify matters. So mutually we decided to set up a \LaTeX course.

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2. Why L^AT_EX?

In 1987 i started to use T_EX. I wrote my own macros and concluded that in a way i was writing my own kind of L^AT_EX. I was forced to explore L^AT_EX upon request of my institute, which was introducing L^AT_EX as the **document preparation tool**. To train our seven secretaries in the use of the program i set up a three-day course, held in the middle of nowhere (still in the Netherlands) to guarantee that we weren't disturbed by daily work, phone calls, etc. The result of this training was a cook-book [2], full of examples, which is still in use.

During that time i also used L^AT_EX to edit my own books [3]. The editing of an astronomical yearbook proved to me that L^AT_EX is 99% powerful enough.

So i answered the request of initiating T_EX in Siberia by offering an 18 hour L^AT_EX course based on my earlier experience. This time i really went to the middle of nowhere.

3. Course

3.1. Material

Since i am not a millionaire, it was impossible to buy books for the course, i had to prepare my own course material. This was based on the earlier-mentioned cook-book [2], important pages of Lamport's book [1] and the L^AT_EX manual [4]. Why re-inventing the wheel? I visited the USSR already ten times so i know about possible limitations: language problems, equipment etc. It's easy to give a course somewhere in the Netherlands, everything you want or need is available. Or you bring it yourself and charge them for it. Bringing all the things you need to Siberia is impossible nor can you charge them. That they create their own cook-book, example book is a rather stimulating result. I deny that i reinvented the wheel, it was an exclusive course adapted to my clients and based on a lot of experience. As mentioned earlier due to my job at the Institute i know rather well what scientists want to do with T_EX or L^AT_EX.

ArborText was kind enough to provide the latest versions of μ T_EX and AMST_EX for cyrillic fonts. During the course we used the built-in previewer. In this situation it was not wise to wait two days before starting exercises.

The previewer is also a good teaching-aid. Again as a result of the course we produced a Siberian L^AT_EX cook-book [5].

I also prepared 40 exercises, we made them all ² through which i tried to test the knowledge and understanding of my students. Considering the language problem, **teaching by example** is the best approach. Appendix A gives an overview of the topics of the exercises.

3.2. Equipment

During the course we used 6 AT with 30 Mbyte hard disks. Imagine the fun of installing all the 45 ArborText diskettes. I felt like a disc-jockey. Urvantsev confessed it was a hard job to arrange for all the PC's. His colleagues couldn't believe the amount of effort he put in to organize the course, seminar. Later on we also used a HP-Laserjet IIP, but in fact we only used it to produce the course-certificates.

3.3. Students

The most important part of a course are the students. Urvantsev selected 13 students originating from different parts of the scientific community: a publishing house, computing center and university. Although i asked that students would be selected on the basis of their knowledge of English, their level of English was poor. So i simplified my English and, with the help of a Dutch friend,³ i survived. Of course it's rather easy to visualize things in T_EX. A remarkable fact was that 11 of the 13 students were female. The oldest student was over 50.

I presented the course in six lessons of three hours, and each with a tea-break (made in a "Samovar") according to Russian traditions .

It was an advantage that nobody had a really good knowledge of document preparation. Some of them knew about Chiwriter and only one knew about Ventura. It seemed that Soviets adored Norton, so we used the Norton Commander to perform our needs.

²A result i never expected

³She graduated from Groningen University and speaks Russian fluently



Figure 1. The author (top row, second left) and his students in the conference-room of the Vice-President of the Siberian Division of Academy of Sciences of the USSR (photo: Maaïke van Koldam).

4. Topics

As mentioned earlier i used Urban's manual as the main text of the course. Table 1 shows the set-up of the course. Chapters are referring to Urban's manual [4].

Based on my earlier experience i used examples relevant to my students work. In the case of the aforementioned astronomy secretaries i used astronomical examples. And for the simple text i used phrases from the gossip journals. Since there are no such magazines in the USSR, i either used the examples of Urban's manual or invented them myself. We also used some examples from the \LaTeX manual composed by Samarin. This booklet (in Russian) was brought along by one of the students. Nobody in the Computing Center knew about this booklet. It was also useful to

lesson 1	Chapter 1 & 2 <i>Introduction & Getting Started</i>
2	Chapter 3 <i>Control Sequences</i>
3	Chapter 4 <i>begin and end environments</i>
4	Chapter 5, partly Chapter 6 <i>Putting It Together</i>
5	Chapter 6,7 & 8 <i>Tables and Figures, Cross-References, Equation Formatting</i>
6	Chapter 8 <i>Equation Formatting</i>

Table 1. Course setup, each part is 3 hours

explain commands. As mentioned earlier, the lack of knowledge of English was sometimes a problem.

Also i used my own experience and the experience of "my ladies" in the course. At my institute i am the local T_EX answering machine so i have a good impression of what the users of T_EX or L^AT_EX want to do. I tried to introduce commands through examples which are frequently used in making documents. The following example illustrates that:

```

\newlength{\novo}
\setlength{\novo}{5cm}
\hangindent=\novo \noindent But last week, humour turned
to alarm when the group .....

\settowidth{\novo}{novosibirsk}
\hangindent=\novo \noindent But last week, humour turned
to alarm when the group .....

\addtolength{\novo}{3cm}
\hangindent=\novo \noindent But last week, humour turned
to alarm when the group .....

```

Another practical example is the use of \@ in tabular-environment. And because the array-environment is a special form of the tabular-environment it's rather useful in the array-environment too.

```
\begin{tabular}{lr@{,}l}
      & \multicolumn{2}{c}{p}\\
      & \multicolumn{2}{r}{p}\\
apple, 1 kilo & 2&50 \\
coffee, 250 gram & 10&09 \\
bread & 0&25 \\
\end{tabular}
```

In illustrating `\newenvironment` i used a too simple example. After the complaints of my students i gave an example using `\newenvironment` to define the head of a complicated, often used table. The default question when using lists is how to change the default labels.

Error recovery etc. (Chapter 9 of Urban's manual), was addressed during each of the lessons. The best way to do it: make and recover your errors yourself.

5. Cyrillic

I intended to use AMST \TeX to do the cyrillic things but unfortunately one of the distribution disks was damaged. So my colleagues from Groningen sent me some files by email and also a local hacker helped me create cyrillic fonts. Dimitri Vulis supplied programs to do the encoding from the Russian keyboard to \TeX .

6. CyrTUG

To stimulate \TeX it's necessary to first have an organisation, like CyrTUG. In the Soviet Union having enthusiastic people is not enough — you have to organise. Otherwise Novosibirsk is knowing about what is going in Leningrad our vice-versa. In Western-Europe, in general, everybody knows about everybody. In the Soviet Union it's not the case. The end of May CyrTUG is founded: a logical and necessary step. Keep them informed and communicate with them.

Acknowledgements: I want to thank my Siberian host Urvantsev for supporting my stay, Maaikje van Koldam for helping me to survive, Betsy Dale from ArborText for supplying $\mu\TeX$, the Dutch \TeX Usersgroup (NTG)

and the colleagues and secretaries at my institute for providing examples and problems every day.

References

- [1] Leslie LAMPORT, *L^AT_EX user's guide and reference manual*, Addison-Wesley, Reading, Mass., 1986.
- [2] Theo JURRIENS et. al., *L^AT_EX kookboek*, 1988.
- [3] Theo JURRIENS, *Hemelwijzer 1989*, De Feniks Pers, Meppel, 1988.
- [4] Michael URBAN, *An Introduction to L^AT_EX T_EX Users Group*, P.O. Box 9506, Providence, RI 02940, U.S.A, 1986.
- [5] Theo JURRIENS et. al., *A Siberian L^AT_EX cook-book*, 1991.

A. Exercises

- simple text, illustrating the meaning of `\par`, blank lines and spaces,
- `\indent` and `\noindent`,
- dashes, the use of `~` and overfull boxes and how to hyphenate,
- special characters, control words and - symbols,
- preamble, changing sizes, `\newlength`,
- type faces and type sizes,
- two column, `\raggedright`,
- `\begin{center}`, `\begin{quotation}` etc,
- floats,
- lists,
- `\newcommand` and `\newenvironment`,
- the different styles,
- footnotes,
- title-page,
- page-numbering and page-style,
- table of contents, list of tables etc,
- `\include`,
- `\ref` and `\label`
- bibliography and `\cite`
- tabbing and tabular,
- a lot of math,
- letters,
- cyrillic.