## Russian-Speaking User: From Chi-Writer and Ventura Publisher to TEX; Learning Difficulties

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## Why TEX is the Best

Let us start with a brief history of desktop publishing in Russia. Chi-Writer (CW) was the first russified text processor to enable an author to accomplish a composition or to prepare a camera-ready copy of a mathematical text. Based on a WYSIWYG principle, this program allows the author to work in the manner he or she was used to: that is, the result of composition is seen on the screen, which is why such work is similar to writing on paper. Thus many authors started working with CW.

The problems appear when the author is going to get a printout of the work. Laser printers, and cartridges for them, are very expensive in this country: moreover, not many organizations and authors have laser printers. To get a printout, the author brings the article to a publisher or to any other place where there is a laser printer, and then sees that the result is not whart was expected. The reasons are as follows: (1) differences in fonts used and those which the publisher possesses; and (2) the same fonts being tied to different keys. (In CW, each font is tied to the functional key on the keyboard and has its number in the fonts list. This number coincides to the number of the functional key. For example, font number one is tied to the F1 key. The number of the font can be easily changed by users; in this case the key to which the font is tied also changes. Bearing in mind the above, it is clear that there is no absolute coincidence in the programs modified by users. As a result, in the print out, the Cyrillic font may be replaced by the Latin font or the Symbol font may be replaced by the Greek. It is not very difficult to restore the order, but you have to know how to do it, and have experience, time and desire.)

Another problem, caused by the graphical nature of CW, arises when text which is prepared by CW is used in another program. This offers great difficulties for those who have no special converters.

I am not going to present in detail all the difficulties coming from using CW or explain the difference between CW and T<sub>E</sub>X, but I think that even the problems described above show that T<sub>E</sub>X is better.

Ventura Publisher was the second russified program to allow an author to compose a mathematical text. Ventura Publisher works on the WYSIWYG principle, but it has become an intermediary stage on the road to Tex, because of the convenience of first preparing an input file (ASCII or in a format of any program compatible with Ventura Publisher) and then importing it into the program. This way, working with Ventura Publisher, Russian-speaking users have first had to get used to working with an input file prepared by a word processor.

Ventura Publisher itself, like CW, has a large number of faults from the point of view of polygraphical quality, and in many cases the number of defects is increased if the keyboarder does not understand mathematical typography conventions. I do not want to say that in order to work with TeX it is not necessary to know the rules of composition of a mathematical text but in many cases TeX helps you, knowing the rules, and doing many things automatically.

Bearing in mind all the above we can propose once again that *TEX* is much better than CW and Ventura Publisher.

Up until now I have been reviewing the problems that authors come across working with a mathematical text in Russian. However, there are a large number of the authors who write articles or send translations of their articles printed in Russian to foreign publishers. Many of them are asked to prepare their articles in TrX and to send a .tex file to the editorial board. Such a requirement forces the scientists to study T<sub>F</sub>X and to work with it. In addition, it is very convenient to send a .tex file to a foreign publisher by e-mail, which is very important for Russian authors, due to the fact that our post does not work properly. Many of them have not worked with any desktop publishing system before and are not used to any system. For me, TEX was the first program I started working with and, consequently, I have had no inconvenience based on the custom of working in a WYSIWYG regime. Thus, those who are used to working with TEX and then start using any other program can not only confirm that TEX is much better but can judge that TEX is the best!

## Difficulties for Russian-Speaking Users Learning T<sub>E</sub>X

One of the main difficulties for Russian-speaking users in learning TeX is the small number of books on TeX (and TeX-related software) translated into Russian. In addition, Russian-speaking users are short of literature on TeX in English. Sometimes it is impossible to get the book needed just for a few days. To buy the book you need in dollars is impossible because of the inadmissibly high rate of the dollar to the rouble (a price of a book converted into roubles is greater than a month's salary).

Another difficulty, and I think it can also be considered as one of the main ones, is the absence of TeX support. To start working with TeX you need to have an opportunity of solving the problems that appear with somebody skilled in TeX. To build a support activity properly, a support person should know the level of users' education, their experience, and abilities (Hoover, 1992).

I have spoken with many beginners and heard that the problems appear at the moment of installation of TeX. Sometimes it is impossible to install the whole package because of the lack of room on a disc. For those who do not know the structure of the package there is a risk of skipping an important directory. That is why, from the very moment of installation of TeX, many questions arise and the user should have an advisor who is able to answer questions or point to appropriate documentation. In the near future such support can be partially accomplished due to the fact that electronic mail in Russia is becoming more widespread.

Approximately a year ago, electronic mail was something very rare and very expensive, especially for international communication. During the past year some changes have taken place in this field. Several non-commercial nets are being used now, and several organizations (universities, for example) have sponsors to cover their e-mail expenses. That is why it is possible now not only to use e-mail as often as you need, but to subscribe to teleconferences, to get information and the necessary materials, and to get the answers for your questions. The members of CyrTUG are discussing the possibility of having a common electronic archive. On solving this problem it will become possible to share information from abroad between the members of the group. It is

very important to have such an archive, paying attention to the fact that transmitting the information inside Russia, even via the commercial nets, is not very expensive.

In conclusion, I would say that in spite of the difficulties, T<sub>E</sub>X is spreading in Russia more and more widely (the latest CyrTUG conference confirmed this fact) and that the number of authors, scientists, and staff members of publication departments interested in T<sub>E</sub>X increases.

## **Bibliography**

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