

Book Reviews

Book review: *T_EX per l'impaziente*

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P. W. Abrahams, K. Berry and K. Hargreaves, *T_EX per l'impaziente*. (Translation of *T_EX for the impatient*; translated by Gaia and Guido Franchi.) Milano: Addison-Wesley, 1991. 396 pp. ISBN 88-7192-022-8.

Although in Italy there is no national TUG association, the T_EX users community is pretty broad since T_EX is widely used in academic environments as well as in commercial activities and in public services.

In the summer of 1991 the Italian branch of the well known publishing house Addison-Wesley published a translated version of *T_EX for the impatient* by P. W. Abrahams, K. Berry and K. Hargreaves. The new title, *T_EX per l'impaziente*, closely reflects the original one, and the same applies for the contents, although the sitting White Rabbit of Alice in Wonderland is reproduced only on the front cover, not in the chapter front pages.

The translators, Gaia and Guido Franchi, did a very good job with the translation, but they had to face the lack of professional phototypesetters capable of setting a book with Computer Modern fonts; in my country there are no problems with phototypesetters that use the classical PostScript standard fonts and a large variety of other outline fonts, since most of the machinery is imported or is adapted from U.S. hardware and software. Therefore the Franchis had to rely on their 300 dpi laser printer and have the publisher print the whole book from the translators' originals; the result is fairly good but compares unfavorably with the English version.

On the other hand the Italian version is free from that annoying bug that infested the original book, when the Optima font with a different character layout was used for the command headings so that open and closing braces were substituted with en-dashes and closing double quotes respectively; the Computer Modern sans serif font is used in its place, but when you find `\l` you don't know if it means `\l` or `\I`.

The translation is quite good, and some of the small errors of the English version are eliminated (for example in the Edible Mushroom table *Boletus edulis* is spelled correctly) and the translators succeeded in rendering all the examples in Italian, even the one that explains the `\parshape` command

with the paragraph shaped as the silhouette of a wine glass; it is not simple at all considering that Italian words are significantly longer on the mean than their English counterparts.

It is not the purpose here to praise or disparage the book: it has more or less the same advantages and faults that Victor Eijkhout pointed out in his review (*TUGboat*, vol. 11 (1990), pp. 572–573) but it has some features that are specific for the Italian orthography that were not listed (of course) in the original English text; this is a reason why the translators must be praised for the good job they did. At the same time (a book review must always contain some criticism) there are some points that leave me unsatisfied, and I think it is very important to point them out because, besides this translation, they might be overlooked also in other circumstances.

- From the very beginning (page 15) the translators introduce the possibility of assigning a category code 13 to the accented characters à, è, é, ì, ò, ù that have individual keys on the Italian keyboard, and to define them so as to correspond to the `\'a`, ..., `\'u` commands. This is certainly possible if the T_EX implementation in use accepts input characters with ASCII codes higher than 127; but this is not always the case. Sometimes this is just impossible, sometimes it requires a special initialization with a suitable `codepage` file that establishes the necessary correspondences for the input and the output of these characters with the internal codes that T_EX uses; no warning is given with this regard.
- Italian hyphenation, or better, the patterns that were used for the Italian hyphenation of this book, are reported in an appendix (pp. 381–382); the rules are taken from an unspecified Italian grammar that I suppose was a junior high school level textbook. The rules specified in such initial level grammars reduce to the simple statement that “you can put the hyphen wherever the syllable to the right of the hyphen starts with one or more letters that may be found at the beginning of another Italian word.” This statement probably holds true for the totality of the words a junior high school student might encounter, but is completely unsatisfactory with grownup people's vocabulary.

Apparently Guido Franchi listed the groups of two consonants that could be found at the beginning of words¹ and then prepared patterns

¹ He lists also `v1` but I do not know of any *common* Italian word starting with this group: there

with all combinations of one and two consonants of the form

$$1K2 \quad 4B3C4 \quad 4s3s4$$

where K is any of the 16 “Italian” consonants², and B and C are the sets of consonants such that $B = K \setminus h$ and $C = K \setminus \{h, l, m, n, r, s\}$. They obtain a total of 210 simple patterns that do a pretty good job with the setting of the book.

Unfortunately this set of patterns has several drawbacks (and one advantage):

1. the set contains a large number of combinations that never occur in Italian (for example all those of the series $4q3C4$, and many more);
2. the set is incomplete in the sense that it cannot split vocalic clusters into their component diphthongs and “triphthongs”; although TEX minimizes the number of hyphenated line breaks, this is a major point with Italian where vowels play a more important rôle than in several other languages;
3. the set contains some errors in the sense that the groups pn and ps should be split, even if there are some Italian words starting with such groups; fortunately enough these groups occur very rarely;
4. separable prefixes are ignored; the national regulations allow prefixed words to be hyphenated with common hyphenation rules, but there are some prefixes, used mostly in technical writing, that it is better to separate according to etymology;
5. (advantage) the method Franchi used, although incomplete and error prone, is suitable for a “formal hyphenation” grammar for many languages provided that sets of vowels, semivowels, consonants and semi-consonants are properly defined. It would be a pleasure if TEX could deal with “generalized” patterns so that the hyphenation

is Vladimiro, but this is an italianization of a foreign proper name, and in my dictionary I found the word “vladika” that comes from (actually is) Serbo-Croatian and means bishop in the orthodox church.

² Take the 26 letter Latin alphabet, eliminate the vowels and the letters j, k, x, y, w and you are left with the consonants that occur in ordinary Italian words. The adjective “Italian” is quoted because even today many Italian grammars stick to the obsolete autharchic axiom that the Italian alphabet contains just 21 letters.

table for each language could consist of a very limited number of entries, such as the three patterns above, without the need of expanding the combinations.

Moreover the Franchis state that hyphenation patterns should be written one per line (which, unless they refer to a particular implementation of TEX and initex , is completely new to me, and is not documented in *The T_EXbook*); in addition, before defining the Italian patterns they establish the the codes for the apostrophe in this way:

```
\catcode'\'=11
\lccode'\'=11
\uccode'\'=11
```

and after the list of patterns they reset the codes this way:

```
\catcode'\'=12
\lccode'\'=12
\uccode'\'=12
```

The T_EXbook states that patterns can be constructed with any character of category 11 or 12 provided it has a nonzero $\backslash\text{lccode}$; therefore the above definitions are mostly superfluous and may lead to errors if the primitives $\backslash\text{uppercase}$ and $\backslash\text{lowercase}$ were used.

Aside from the above comments, the book is well translated and should prove very useful among the Italian users and, may be, help the further diffusion of our favorite text processor.

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