LADIES and LATEX

Th. A. Jurriens

Kapteyn Astronomical Institute,
University of Groningen,
P.O. Box 800,
9700 AV Groningen

`taj@rugr86.rug.nl`

Abstract

This paper describes the use of LATEX by non-astronomers at the Kapteyn Institute. Although the general opinion is that it is too complicated for non-scientist, experience in Groningen proves otherwise. If you provide good tools or styles everybody is capable of using LATEX. Also, the astronomers took over tricks from the ladies, simplifying their lives, too.

1 Introduction

Just before my first LATEX course, given to the secretaries at the Kapteyn Institute, [1] I had a discussion with colleagues at the Computing Center. The subject of discussion was the title of this paper "Ladies and LATEX" – according to my colleagues of the Computing Center it wasn't the right combination. But the experience gained from five years intensive LATEX use shows a complete different result: the secretaries of our Institute are now experienced LATEX users and in most cases they are able to solve their own LATEX problems. So this paper isn't intended to be unfriendly towards ladies.

2 History

Before introducing LATEX as the **document preparation tool** the ladies were used to a "what you see is what you get" editor, working on a system called A.E.S. It was a huge computer with two workstations and one big noisy printer. Learning wasn't easy at all and the system wasn't open to the world. More astronomers started to type their own texts using TEX: the quality of these were much better than that of the texts produced by the ladies. So it was clear: the A.E.S. system was out of date.

3 Why LATEX?

In 1987 I started to use TEX. I wrote my own macros and concluded that in a way I was writing my own kind of LATEX. I was forced to explore LATEX upon request of my institute, which was introducing LATEX as the **document preparation tool**. In 1987 only Word Perfect 4.0 was available and wasn't capable of producing formulas and nicely lined-up tables – always in need in astronomy. So Word Perfect wasn't the solution for our ladies. Different reasons also existed for not selecting Chi-Writer, at that time the favourite editor of our colleagues at the Deparment of Mathematics.

In order to train seven secretaries in the use of LATEX I set up a three-day course – which since the first "performance" in Erm has been used several times[2] , held in the middle of nowhere 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. I used Urban's manual [4] as the main text for the course. Table 1 shows the set-up of the course. Chapters refer to Urban's manual [4].

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

---

[1] The Institute incorperates the Kapteyn Laboratory of the University of Groningen, the Kapteyn Observatory in Roden and the Laboratory for Space Research

[2] 1990: Department of Mathematics, 1991: Department of Mathematics Groningen University, Computing Center Novosibirsk USSR

Table 1: Course setup, each part is 3 hours

4 Restrictions

The ladies had several technical requests concerning the possibilities of the text editing system/environment:

1. To have their own private printer so that they could print confidential papers or letters and avoid the queue of the general printer.
2. Printing in landscape mode.
3. The possibility of previewing.
4. When necessary, to be independent of the local area network.
5. Easy to learn.

Besides these technical issues, there were more restrictions involved with the type of work of our secretaries: making mailing labels, typing letters, manipulating databases, producing forms and preparing manuscripts for publishers. To solve these problems I created several tools which I will describe in this paper. The problem of preparing manuscripts was solved by the publishers: more and more publishers are adapting LATEX or TEX as the standard document preparation tool. According to our "ladies" the styles provided are easy to use.

5 Tools

5.1 Letters

To easy life, the use of LATEX, we created some tools and adapted several style files. For example the plain `letter.sty` was not good enough for our purposes. About 75% of our outgoing mail are letters so we adapted the letter style file to suit our needs and also included the symbols of our letterhead (see figure 1). Both are adapted from a description for a Kyocera laserprinter. It is converted to a 300 dpi pxl-file and is created without a `MF` - file. The rules of our University regarding letters require certain characteristics of a letter, like the address, date, etc., to be at a fixed position

on the page. To obtain this result a picture environment is used.

Figure 1: The two elements of the style of the University.

Our `kapteyn.sty` letter style knows two languages: Dutch and English. With one switch we can change the language of the fixed elements like the date, the name of the Institute, etc (see table 2). An environment is also supplied for preparing telefaxes. With this environment, it is possible to count or give the number of pages. The output is in 12pt by default to avoid reading problems at the other end of the line.

English	Dutch
Our no.:	Ons nr.:
Re:	Betreffende:
cc:	I.a.a.
Encl:	Bijlage(n):
Date:	Datum
Our ref.:	Ons kenmerk
Your ref.	Uw kenmerk:
Subject	Onderwerp

Table 2: Some language-dependent elements in our letter style.

In the current working environment – a SUN platform – we are using a script to make letters. It prompts for the language and then chooses the right template for doing the job. So the secretary must simply type the letter. Of course, the scripts are used by non-secretaries too. Thus all outgoing mail now has the same face to the world. Users are able to change the phone-number and email address in the letterhead.

5.2 Mailing-labels

To create mailing-labels a three-column plain-TEX macro, available on request, was adapted for our needs. Before finding the good sizes it was necessary to play around. We use labels in use for copying machines. The adapted macro prompts a file containing the addresses. Each adress is separated by `\next`. If the file contains only one adress it will create 24 labels, the maximum of one sheet of labels. If the adress is to big it is split over two labels with a • sign to notify the person who is really doing the job of mailing.

Figure 2: The language-varying elements of our letterhead: on the left a Dutch version, on the right, the English. To be in line with official rules of the University, PostScript-fontsare used instead of the default CMR fonts.

5.3 Databases

Currently we use Dbase for keeping track of all publications made by the astronomers at our Institute and also information about our students. In the first case we mainly use the information for our Annual Report: an overview of research and all publications. Some Dbase-programms are used to separate between publications in journals, contributions in conference – proceedings, thesis etc.

6 Publications

Every year our Institute produces the earlier mentioned Annual Report and the "studiegids" a guide for students. For the purpose a `bk9pt.sty` file was created in combination with a `A5.sty`. Both publications are easy-made. To improve output quality, we use an adapted DVI2PS driver, for 600 dpi. At our University printing house we have access to a 600 dpi printer (Varitype).

7 Conclusion

LADIES and LATEX are a perfect couple, in other words: everybody can use it!!

References

[1] Leslie Lamport, *LATEX user's guide and reference manual*, Addison-Wesley, Reading, Mass., 1986.

[2] Theo Jurriens et. al., *LATEX kookboek*, 1988.

[3] Theo Jurriens, *Hemelwijzer 1989*, De Feniks Pers, Meppel, 1988.

[4] Michael Urban, *An Introduction to LATEX* TEX Users Group, P.O. Box 9506, Providence, RI 02940, U.S.A, 1986.