

# An essential guide to L<sup>A</sup>T<sub>E</sub>X 2<sub>ε</sub> usage

German version  
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## Abstract

This is the English translation of version 2.4 of *l2tabu*. It is a complete rewrite of the last English edition published over ten years ago. This paper goes back to a discussion thread on the German T<sub>E</sub>X newsgroup `de.comp.text.tex` about bad habits of L<sup>A</sup>T<sub>E</sub>X users that seem to die hard. We try to give a demonstration of the most common mistakes we have come across over time, and we give some advice on how to improve on your L<sup>A</sup>T<sub>E</sub>X usage. No attempt, however, is made to compete with proper introductions such as *l2short*, or the *UK T<sub>E</sub>X FAQ*. Of course, suggestions and comments are always welcome.

## Legal notice

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### **Contributors to the English version**

Barbara Beeton, Karl Berry, Christoph Bier, Stephen Eglen, Klas Elmgren, Gernot Hasenpflug, Yvon Henel, Hendrik Maryns, Walter Schmidt, Maarten Sneepe, Stefan Ulrich, José Carlos Santos, Knut Wenzig, Bruno Wöhrer, and Federico Zenith have contributed to the English version, making suggestions, or simply encouraging development.

In case we forgot someone, please send us an email.

### **Translator's note**

I have attempted to keep as true to the original version of *l2tabu* as possible. However, there are some points that need some more explanations, as it turns out that most of us do not have easy access to usenet any more. So, for easy reading I have looked up the references to newsgroup postings and explained in a footnote what the source really said. I have marked these footnotes as translator's notes to make it clear that I added something to the text. — J. F.

### **How to get in touch with the authors**

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## 1 “Deadly sins”, or the most severe mistakes in using $\text{\LaTeX}2_{\epsilon}$

These are the most severe mistakes tha kept turning up in `de.comp.text.tex` at the time the paper was first drafted.

### 1.1 a4.sty, a4wide.sty

These “two” packages should not be used any more. They should be replaced by class options `a4paper`, or `paper=a4` in KOMA-Script from version 3. There are two reasons for this. On the one hand, these packages produced a rather bad layout. On the other, it turned out that there have been several versions of these packages around. So, even today there still is no guarantee that you will get the same layout on different machines.

### 1.2 How to adjust page layout

The page margins produced by the  $\text{\LaTeX}$  standard classes (`article.cls`, `report.cls`, `book.cls`) printed on A4 paper look too wide in the eyes of most Europeans. You might like to use the classes from the KOMA-Script bundle instead (`scrartcl.cls`, `scrreprt.cls`, `scrbook.cls`). KOMA-Script also provides `typearea.sty` which allows for adjusting page layout according to rules set out by the German typographer *Jan Tschichold*. See the KOMA-Script guide for details.<sup>1</sup>

Some users change parameters like `\oddsidemargin`, or they employ the package `any-size.sty`. However, this is not a good idea, either, because the latter package is obsolete. Package `vmargin` is another case in point, as it also shows some bad side effects.<sup>2</sup>

A valid option for adjusting page margins, however, is `geometry.sty`. Please be careful not to touch `\hoffset` and `\voffset`, unless you are absolutely sure about what you are doing.

<sup>1</sup>Markus Kohm. *The Guide. KOMA-Script*. Version 3.25. Mar. 30, 2018. URL: <http://ctan.org/tex-archive/macros/latex/contrib/koma-script/doc/scrguien.pdf> (visited on 04/25/2018).

<sup>2</sup>Translator’s note: As *Uwe Siart* pointed out in `<uirrzdri16.fsf@uwe-siart.de>` on 1 February 2006, `vmargin` does not comply with the  $\text{\TeX}$ book. As  $\text{\LaTeX}$  itself keeps to this standard for `\hoffset` and `\voffset`, `vmargin` is incompatible with both  $\text{\LaTeX}$  and most other  $\text{\LaTeX}$  packages that are standard compliant.

### 1.3 How to edit packages and classes

Never ever edit document classes (`article.cls`, `scrbook.cls`, etc.) of packages (`varioref.sty`, `color.sty`) directly! You might like to use a “container class”, or a “container package” instead. You also might like to move the class or the style files to a different file before editing them. See the *German  $\TeX$  FAQ* for more details.<sup>3</sup>

**Note:** Any additional classes or packages should be installed either in your local `texmf` tree for all users, or in you personal `texmf` tree in your home directory. If you need a file Files for one project only you may keep it in the project directory.<sup>4</sup>

### 1.4 How to control inter-line space with `\baselinestretch`

As a rule, all parameters in a document should be edited on the highest level in the user interface. Thus, inter-line space can by controlled in three ways:

1. With `setspace.sty`.
2. Using the  $\LaTeX$  command `\linespread{<factor>}`.
3. Redefining `\baselinestretch`.

Redefining parameters such as `\baselinestretch` takes place on the lowest level. This is why it should only be done in  $\LaTeX$  packages. For users there is a command called `\linespread{<factor>}` which serves exactly this purpose. However, the best way to deal with inter-line space is to use `setspace.sty` because it also deals with inter-line space in footnotes and list environments which in most cases should remain unchanged.

Use `setspace.sty` for setting inter-line space to one-half or to double spacing, while minor adjustments that fit fonts other than Computer Modern may be done with a `\linespread{<factor>}` command. E.g., the font Palatino fits `\linespread{1.05}`.

### 1.5 How to control paragraph indent and the spread between paragraphs

Sometimes it makes sense to adjust paragraph indent (`\parindent`). If you do so, please note:

- `Parindent` should be measured according to font size (em), i.e., not in absolute terms (mm). What’s more, the unit 1 em also depends on the font face employed, as every font designer adjusts this measure to the individual font.

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<sup>3</sup>Herbert Voß. *Wie gehe ich am besten vor, wenn ich eine bestehende  $\LaTeX$ -Klasse ändern bzw. an meine eigenen Vorgaben anpassen will?* Deutsche (La)TeX-FAQ. German. Mar. 4, 2009. URL: <http://projekte.dante.de/DanteFAQ/Dokumentenklasse> (visited on 04/25/2018).

<sup>4</sup>Translator’s note: Make sure to run `mktexlsr` after installing any additional files to your  $\TeX$  distribution in order to update its file name database.

## References

- $\LaTeX$  syntax should be preferred over  $\TeX$  code. E.g., it is simpler to parse  $\LaTeX$  code with external programmes or scripts, it is easier to maintain, and it avoids incompatibilities with other packages (calc.sty).

## References

Kohm, Markus. *The Guide. KOMA-Script*. Version 3.25. Mar. 30, 2018. URL: <http://ctan.org/tex-archive/macros/latex/contrib/koma-script/doc/scrguien.pdf> (visited on 04/25/2018).

Voß, Herbert. *Wie gehe ich am besten vor, wenn ich eine bestehende  $\LaTeX$ -Klasse ändern bzw. an meine eigenen Vorgaben anpassen will?* Deutsche (La)TeX-FAQ. German. Mar. 4, 2009. URL: <http://projekte.dante.de/DanteFAQ/Dokumentenklasse> (visited on 04/25/2018).