

# Introduction to LaFiC

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LaFiC means *layout and format in comments*, as all layout and format information is put into comment lines. So layout and content are *fully* separated. For details see Writing text in LaFiC.

## 1 Why LaFiC

I've been working with  $\text{\LaTeX}$  /  $\text{\XeLaTeX}$  for many years now. Mostly I'm writing prose (no math at all). I often found it disturbing, that I'm forced to create a preamble instead of just start writing.

I started using markdown / multimarkdown. Being quite inflexible it didn't convince me either. Also I didn't like the cryptic syntax so much. The  $\text{\LaTeX}$  output was quite cryptic as well.

The I remembered my father saying, he'd like to be able to just start writing as with his old typewriter only with a better formatting to end with.

Last but not least I was thinking a lot about how the layout and formation of a text could be cleaner separated from the content.

With LaFiC I can start writing without a thought about the Layout. Still I get a well structured HTML or (Xe)LaTeX<sup>1</sup> document, that I can further render to PDF.

When I'm ready with writing, I can start formatation by adding human readable comments, beeing my own lector.

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<sup>1</sup>The standard templates for LaFiC are all based on  $\text{\XeLaTeX}$  to support UTF-8. Still using  $\text{\LaTeX}$  should be possible.

# Part I

## Installation and Usage

### 2 Prerequisites

LaFiC requires Perl > 5.10.1 (tested with Perl 5.26.1).

The standard templates require a recent  $\text{\LaTeX}$  installation with at least graphicx, hyperref, microtype and xspace.

The Gnu Emacs lisp files were tested with Gnu Emacs 25.2.2.

`lafic2pdf` also requires latexmk (tested with version 4.41).

### 3 Installation

Get source from github using:

```
git clone https://github.com/SebastianMeisel/lafic.git
```

Add lafic directory to \$PATH, e.g.:

```
export PATH=${PATH}:~/lafic
```

See `lafic-mode.el` for installation instructions, if you want to use it in Gnu Emacs<sup>2</sup>.

### 4 Usage

For now the LaFiC distribution consists of three scripts that you call with the name of the LaFiC file.

```
# lafic2html Datei.lafic
# lafic2tex Datei.lafic
# lafic2pdf Datei.lafic
```

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<sup>2</sup>GNU Emacs is available as free Software under a GNU General Public License for most modern operating systems (Unix, GNU/Linux, macOS und Windows).

The last of these is a bash script, first calling `lafic2tex` and then `latexmk`.

Calling these three script would result in the following files:

```
Datei.html  
Datei.tex  
Datei.pdf
```

## 5 LaFiC major mode in GNU Emacs

After installing and activation `lafic-mode.el` (see Installation), the LaFiC major mode is activated on opening any file with a `*.lafic` extension.

This gives you basic syntax highlighting and some keyboard shortcuts with a `C-c` prefix. The shortcuts are similar to those used in AUCTeX.

## Part II

# Writing text in LaFiC

## 6 Lines and paragraphs

The content is presented in two forms, which also include the most basic layout: There are *lines* and *paragraphs*.

The difference is not so much the length, but lines include none of the punctuation marks (`.`, `?`, `!`, `:`). If no further layout information is provided, these are interpreted as headings.

The *first* line is interpreted as *the* title and presented as this is as `<h1>`, when converted to Html, and `\title`, when converted to L<sup>A</sup>T<sub>E</sub>X .

Further line will be converted to `<h3>` (Html) or `\section` (LaTeX), if no otherwise specified.

This way simple Documents may be structured with no explicit layout information at all.

## 7 Comments

You can add comments to your text, by starting a single line or each *line* of

a paragraph with a % char with no leading spaces. These lines or paragraphs must, however, be separated by empty line from the content.

```
% This is a comment.
```

```
% This is a longer comment, that spreads over several  
% lines. It is important that it is not connected to a line  
% of the general content.
```

“It is recommended, however, to start comments with two % chars. Else there may occur ‘problems’, when there” is a »:« somewhere in the comment. You also can start a longer comment this way and don’t need to repeat it ‘in every’ line.

```
%% This is a comment! No mistake!  
Even when you go on with no leading % it's still a comment.
```

## 8 Formated paragraphs

Paragraphs can be formated by adding a line before the paragraph, that starts with a % char, followed by a single word. There are some predefined keywords, like quote or quotation for – well a quotation.

```
% quote  
This is a quotation.
```

```
    This is a quotation.
```

If the keyword is unknown, it will be converted to an environment name in L<sup>A</sup>T<sub>E</sub>X or the name of a <div> in Html.

## 9 Formated lines

Line are formated in the same way, only they are converted to macros (LaTeX) oder <span> names (HTML). Know keywords are H1 ... H6 for headings.

```
% heading4  
This is a subsection
```

## 9.1 This is a subsection

## 10 Inline formation

If you want to format words or sequences in a paragraph (or line if needed), you add format lines with a leading % after a paragraph. It has two parts:

1. the word or the sequence to be formatted in the form start...end.
2. a keyword.

The both are separated by a »:«.

Known environment keywords are e.g. quote or quotation.

If the keyword is unknown, it is converted to a macro (LaTeX) oder <span> (HTML) name.

## 11 Lists

Lists are the only things, that need some kind of markup. You have to start each topic of the list with one of the following chars: -, \*, +, -. It doesn't matter, which one you choose. You may indent the lines, but that has no influence on the layout.

- \* Top 1.
- Top 2.
  - Top 1.
  - Top 2.

For multilevel lists, you have to choises, to raise or decrease the level: The clean LaFiC style would be, to start a new paragraph and add the keyword »% level+« or »% level-« at the end.

- \* Top 1.
- \* Top 2.

- \* Top 2a.
- \* Top 2b.
- % level+

- Top 1.
- Top 2.
  - Top 2a.
  - Top 2b.

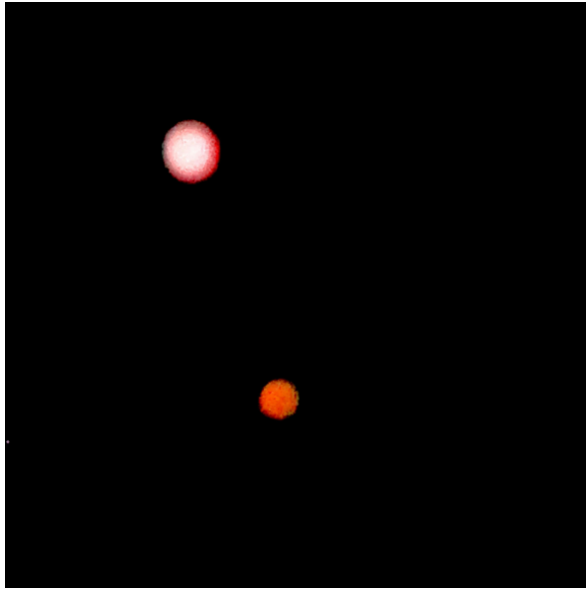
Or you can write the list in one paragraph, marking the raise or decrease of the level with a  $>$  or  $<$  at the beginning of a single line.

- ```
* Top 1.
* Top 2.
>
  * Top 2a.
  * Top 2b.
<
* Top 3
```
- Top 1.
  - Top 2.
    - Top 2a.
    - Top 2b.
  - Top 3

## 12 Images

The simplest way to put an image into a LaFiC file is a line with the image name, with a know extention: png, jpg, jpeg, gif.

```
Image.png
% height = 40%
```



Note that this will not put an figure environment in L<sup>A</sup>T<sub>E</sub>X files, so the image won't float this way. For this to achieve to have to put % image, %img or %figure before the line. You don't need the extention then.

```
%image  
Image.png  
% width = 40%  
% caption = "Moon and Mars"
```

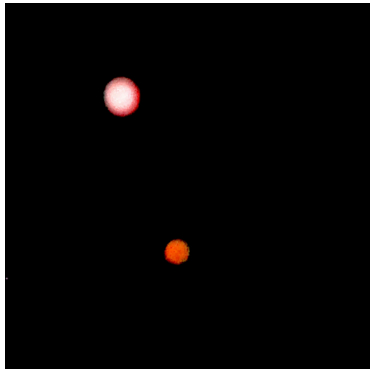


Figure 1: "Moon and Mars"