

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 \LaTeX / \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 \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)LaTeX¹ 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.

¹The standard templates for LaFiC are all based on \XeLaTeX to support UTF-8. Still using \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 \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 Emacs².

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
```

²GNU 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 `<h1>`, when converted to HTML, and `\title`, when converted to L^AT_EX .

Further *lines* 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 paragraph with two `%` chars

with **no leading spaces**:

```
%% 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.
```

8 Formated paragraphs

Paragraphs can be formatted 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. If the keyword is unknown, it will be converted to an environment name in L^AT_EX or the name of a <div> in Html.

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

This is a quotation.

Two paragraph starting with the same keyword will be concatenated to one block / environment.

```
% center  
This paragraph is centered
```

```
% center  
This one, too.
```

Becomes:

This paragraph is centered
This one, too.

The following keywords are available at the moment:

- quote for quote environment / <blockquote>
- quotation for quotation environment / <blockquote>
- center for center environment / <div class=“center”>, with text-align=center

9 Formated lines

Line are formated in the same way, only they are converted to macros (LaTeX) oder `` names (HTML). Know keywords are:

- title, h1 or heading1 for title / `<h1>`
- part, h2, heading or chapter³ for part, chapter / `<h2>`
- section, h3 or heading3 for section / `<h3>`
- subsection, h4 or heading4 for subsection / `<h4>`
- subsubsection, h5 or heading5 for subsubsection / `<h5>`
- paragraph, h6 or heading6 for paragraph / `<h6>`
- h or heading for addsec
- marginpar or annote for marginpar / ``

```
% 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 formated 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 `` (HTML) name.

³Chapter is not available in standard template as it is not available in the document class used.

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 choose, 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.

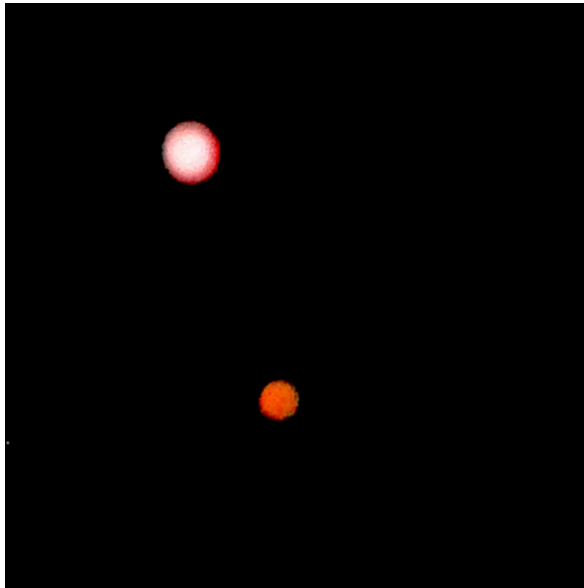
- * Top 1.
- * Top 2.
 - >
 - * Top 2a.
 - * Top 2b.
 - <
 - * Top 3

- 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^AT_EX 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"
```

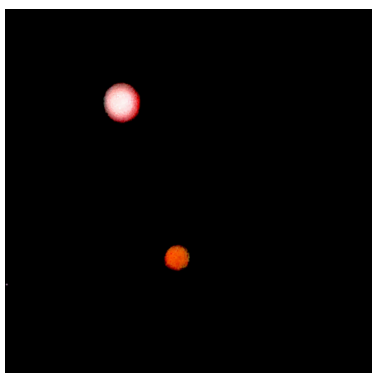


Figure 1: "Moon and Mars"