A Sample Groff Document

von

Pintman

Introduction

Groff is an easy to use program for typesetting and the creation of documents which can be controlled by several macros. In this document I will use the *mom* macro set. In a typical Linux installation its documentation is installed at the following location.

```
/usr/share/doc/groff-base/html/mom/toc.html
```

If you are unsure look into the last paragraphs of the man page of *groff*.

This document can be generated with the following command:

```
pdfmom -e -t -p -k -m den groff.mom > document.pdf.
```

The options are used for preprocessing mathematical equations (-e), tables (-t) and diagrams (-p for pictures) respectively. The -k option allows for using german umlauts and will convert UTF8 encoded files to something that groff understands. The option “-m den” activates the package for german hyphenation in the reformed (new) version.

A common workflow can integrate the `entr` commandline tool which will run a program whenever the input file changes.

```
ls groff.com | pdfmom -e -t -p -k -m den groff.mom > document.pdf.
```

Look into the groff.mom file to get information about the structure of a groff document. The generated PDF on the other hand gives an impression of the generated document.

Basic Formatting

Words can be formatted in **bold** or *italic* by the inline macro \f.

To create external links one can use the PDF_WWW_LINK macro that comes with pdfmom: https://www.example.com

A link with a different name can be used as well.

Lists

Lists can easily be created using the LIST and ITEM macro.

- First item
- Second item

Now a list with numbers:

1. First item
2. Second item

Images

Images can be inserted if they are available as PDF documents. JPEG and PNG images can be converted with *ImageMagick*: `convert image.jpg image.pdf`

After that the image can be inserted with PDF_IMAGE macro. The dimension of the PDF must be given as parameter. It can be extracted from the PDF with `pdfinfo.`

An avatar of me.

Tables

There is support for tables using the the tbl preprocessor and the .TS and .TE macros. Each table must contain options (which are optional), formatting information and data.

To enable table preprocessing the -t option must be given to the pdfmom command.

x	$f(x)=x^2$	$g(x)=x^3$
1	1	1
2	4	8
3	9	81

It is generally a good idea to put tables in FLOAT environments.

Equations

Mathematical equations can be created with the eqn pre-processor, which must be enabled during document generation with the -e option. Then you can use the EQ and EN macros.

$$x^2 = \frac{1 + \pi}{\sqrt{x}}$$

German Umlauts

German umlauts can be specified using a special notation ä Ä ü Ü ö Ö ß. Once you understand it it can easily be remembered. The man page of groff_char will list the names of further symbols.

If the document is saved with ISO-8859-1 encoding umlauts can be be entered directly: ö ä ü ...

Another way to solve encoding problems and to support UTF8 encoding is the -k option. In this case the preconv tool is run before which will convert files to encodings that groff understands.

Diagrams

Diagrams can be created with the pic pre-processor and the PS and PE macros.

During document generation the option -p must be used.

Further Information

Information about groff in general (e.g. the *Troff User's Manual*) and detailed documentation about the tbl and eqn pre-processors is available at the following URL http://www.kohala.com/start/troff/troff.html