LaTeX2man

–

A Documentation Tool

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November 11, 2008
Version 1.23

Abstract

Latex2man is a tool to translate UNIX manual pages written with LaTeX into a format understood by the UNIX *man*(1)-command. Alternatively HTML, TexInfo, or LaTeX code can be produced too. Output of parts of the text may be suppressed using the conditional text feature (for this, LaTeX generation may be used).

1   Synopsis

latex2man [**-t***transfile*] [**-HMTL**] [**-h**] [**-V**] [**-C***name*] [**-a***char*] *infile outfile*

2   Description

Latex2man reads the file *infile* and writes *outfile*. The input must be a LaTeX document using the *latex2man* LaTeX package. *Latex2man* translates that document into the *troff*(1) format using the **-man** macro package.

Using the **-H** option, HTML code can be produced, instead of *troff*(1).
Using the **-T** option, TexInfo code can be produced, instead of *troff*(1).
Using the **-M** option, *troff*(1) input is produced.
Using the **-L** option, LaTeX ouput can be produced, instead of *troff*(1).

3   Options

-t*transfile* Translation for user defined LaTeX macros.

-M   Produce output suitable for the *man*(1) command (default).

-H   Instead of producing output suitable for the *man*(1) command, HTML code is produced (despite the name of the command).

-T   Instead of producing output suitable for the *man*(1) command, Tex-Info code is produced (despite the name of the command). The generated `.texi`-file may be processed with *makeinfo*(1) (to produce an `.info`-file) which in turn may be installed using *install-info*(1). The Info tags `@dircategory` and `@direntry` are provided.

-L   The LaTeX source is written to the *outfile*. This is useful in conjunction with the **-C***name* option.

-C*name*   Output the conditional text for *name*. If more than one name should be given use quotes: **-C**'*name1 name2 …*'
          The following names are defined automatically:

> - **-H** defines `HTML`
> - **-T** defines `TEXI`
> - **-M** defines `MAN`
> - **-L** defines `LATEX`

-a*char*   Is used only in conjunction with -T.
          Background:
          TexInfo ignores all blanks before the first word on a new line. In order to produce some additional space before that word (using \SP) some character has to be printed before the additional space. By default this is a . (dot). The *char* specifies an alternative for that first character. Giving a blank to **-a** supresses the indentation of a line.
          Note: only for the first \SP of a series that *char* is printed.

-h   Show a help text.

-V   Show version information.

4   Files

`latex2man.tex` The LaTeX file containing this Man-page.

`latex2man.sty` The LaTeX package defining the environments and commands.

`latex2man.cfg` The configuration file for *Latex2man* LaTeX-package.

`latex2man.trans` File containing example translations of user defined LaTeX macros.

`fancyheadings.sty` A LaTeX package used to typeset head- and foot lines.

`fancyhdr.sty` A LaTeX package used to typeset head- and foot lines.

`rcsinfo.sty` A LaTeX package used to extract and use RCS version control information in LaTeX documents.

5   See Also

LᴬTEX, TexInfo, *troff*(1), *groff*(1), *makeinfo*(1).

6   LᴬTEX commands

The LᴬTEX package `latex2man` is used to write the Man-pages with LᴬTEX. Since we translate into other text formats, not all LᴬTEX stuff can be translated.

6.1   Package Options

The `latex2man` package accepts the following options:

fancy use the LᴬTEX package `fancyheadings`.

fancyhdr use the LᴬTEX package `fancyhdr`.

nofancy neither the LᴬTEX package `fancyheadings` nor `fancyhdr` are used.

The default option may be specified in the file `latex2man.cfg`.

6.2   Package Specific Environments

The following environments are provided by the package:

\begin{Name}{chapter}{name}{author}{info}{title} The `Name` environment takes five arguments: 1. the Man-page chapter, 2. the name of the Man-page, 3. the author, 4. some short information about the tool printed in the footline of the Man-page, and 5. a text which is used as title, for HTML and LᴬTEX (it's ignored for output of the Man-page or TeXinfo. The `Name` environment must be the first environment in the document. Processing starts with this environment. Any text before this is ignored (exception: the `setVersion` and `setDate` commands). (Note: all arguments of \begin{Name} must be written on one line).

\begin{Table}[width]{columns} The `Table` environment takes two arguments: the first optional one specifies a width of the last column, the second one gives the number of columns. For example:

```
\begin{Table}[2cm]{3}
 Here & am  & I   \\\hline
  A 1 & A 2 & A 3 1 2 3 4 5 A 3 1 2 3 4 5 \\
  B 1 & B 2 & B 3 \\
\end{Table}
```

will be typeset as:

Here	am	I
A 1	A 2	A 3 1 2 3 4 5
		A 3 1 2 3 4 5
B 1	B 2	B 3

If no optional *width* argument is given, all entries are typeset left justified. The *width* is a length measured absolutly in *cm*. Processing with LATEX a p{width} column is typeset as last column. The translation to *troff*(1) commands results in a lw(width) column specification. Translating to HTML and TexInfo ignores the *width* parameter.

\hline may be used.

If the Man-page is formatted with *troff*(1) and tables are used, the *tbl*(1) preprocessor should be called, usually by giving a -t to the call of *troff*(1). When viewing the generated manula page using *man*(1), *tbl*(1) is called automatically.

\begin{Description} is the same as \begin{description}

\begin{Description}[label] is similar to \begin{description}, but the item labels have at minimum the size of the (optional) word *label*. The difference is visible only in the DVI and PDF-output, not in the troff, TexInfo or HTML output.

a |a \begin{description}

ab |ab

abc |abc

a |a \begin{Description}

ab |ab

abc |abc

a |a \begin{Description}[aa]

ab |ab

abc |abc

6.3 Accepted LATEX Environments

The following environments are accepted:

- description
- enumerate
- itemize
- verbatim
- center

They may be nested:

- Itemize and nested center:

  A centered line.
  Another centered line.

- Another item an nested enumerate

    1. a
    2. b

6.4 Package Specific Macros

The following commands are provided:

\Opt{option} Option: `\Opt{-o}` will be typeset as **-o**.

\Arg{argument} Argument: `\Arg{filename}` will be typeset as *filename*.

\OptArg{option}{argument} Option with Argument:
`\OptArg{-o}{filename}` will be typeset as **-o***filename*.

\OptoArg{option}{argument} Option with optional Argument:
`\OptoArg{-o}{filename}` will be typeset as **-o**[*filename*].

\oOpt{option} Optional option, e.g. **\oOpt{-o}** will be typeset as [**-o**].

\oArg{argument} Optional argument, e.g. **\oArg{filename}** will be typeset as [*filename*].

\oOptArg{option}{argument} Optional option with argument, e.g.
\oOptArg{-o}{filename} will be typeset as [**-o***filename*].

\oOptoArg{option}{argument} Optional option with optional argument,
e.g. **\oOptoArg{-o}{filename}** will be typeset as [**-o**[*filename*]].

\File{filename} used to typeset filenames, e.g. `\File{filename}` will be typeset as `filename`.

\Prog{prog} used to typeset program names, e.g. `\Prog{latex2man}` will be typeset as *latex2man*.

\Cmd{command}{chapter} used to typeset references to other commands, e.g. `\Cmd{latex2man}{1}` will be typeset as *latex2man*(1).

\Bar is typeset as |.

\Bs (BackSlash) is typeset as \.

\Tilde is typeset as a ∼.

\Dots is typeset as . . .

\Bullet us typeset as •.

\setVersion{..} set .. as version information.

\setVersionWord{..} set .. for the word *Version:* in the footline. The default is `\setVersionWord{Version:}`.

\Version returns the version information.

\setDate{..} sets .. as date information.

\Date returns the date information.

\Email{..} use to mark an Email address:
    `\Email{Juergen.Vollmer@informatik-vollmer.de}` is typeset as:
    `Juergen.Vollmer@informatik-vollmer.de`.

\URL{..} use to mark an URL: `\URL{http://www.foo.de/\Tilde vollmer}`
    is typeset as `http://www.foo.de/∼vollmer`.

\LatexManEnd the input file is read and processed until reading end-of-file or
    `\LatexManEnd` (at the beginning of a line). L^AT_EX ignores this command.

\Lbr, \Rbr is typeset as [and] (these variants are needed only somtimes like
    in `item[FooBar\LBr xx \Lbr]`. Usually `[ ]` will work.

\LBr, \RBr is typeset as { and } (these variants are needed when using { or
    } as arguments to macros.

\Circum is typeset as ˆ.

\Percent is typeset as %.

\TEXbr If processed with L^AT_EX causes a linebreak (i.e. is equivalent to \\).
    In the output of *latex2man* this macro is ignored.

\TEXIbr If TexInfo output is generated, causes a linebreak (i.e. is equivalent
    to \\), otherwise ignored.

\MANbr If Man-Page output is generated, causes a linebreak (i.e. is equivalent
    to \\), otherwise ignored.

\HTMLbr If HTML output is generated, causes a linebreak (i.e. is equivalent
    to \\), otherwise ignored.

\medskip An empty line.

\SP Produces some extra space, works also at the beginning of lines. The code
    of the second line looks like: `\SP abc \SP\SP xx\\`:
    abc   xx
     abc   xx
      abc xx

    Note: Due to some "problems" with TexInfo, the lines starting with `\SP`
    have a leading . (dot) in the TexInfo output, see **-a***char*.

6.5 Accepted Macros from the rcsinfo Package

\rcsInfo $Id ...$ if the L^AT_EX package `rcsinfo` is used, this command is used
    to extract the date of the Man-page.

\rcsInfoLongDate if the L^AT_EX package `rcsinfo` is used, this command is
    used to typeset the date coded in the `$Id ..$` string.

6.6 Accepted L^AT_EX Macros

The following standard L^AT_EX commands are accepted:

\section{..} The `section` macro takes one argument: the name of the Man-page section. Each Man-page consists of several sections. Usually there are the following sections in a Man-page: *Name* (special handling as environment, c.f. above), *Synopsis*, *Description*, *Options*, *Files*, *See Also*, *Diagnostics*, *Return Values*, *Bugs*, *Author*, *version*, etc.

Synopsis must be the first section after the `Name` environment.

Note: Do not use LATEX-macros in section names.

\subsection{..} works as well as

\subsubsection{..} those.

\emph{..} \emph{example} is typeset as *example.*

\textbf{..} \textbf{example} is typeset as **example**.

\texttt{..} \textt{example} is typeset as `example`.

\underline{..} \underline{example} is typeset as <u>example of underline</u>.

\date{..} uses .. as date.

\verb+..+ but only + is allowed as delimiter.

\$<\$ is typeset as <.

\$>\$ is typeset as >.

\$<=\$ is typeset as <=.

\$>=\$ is typeset as >=.

\$=\$ is typeset as =.

\$<>\$ is typeset as <>.

\$\ge\$ is typeset as $\geq$.

\$\le\$ is typeset as $\leq$.

\$\leftarrow\$ is typeset as $\leftarrow$.

\$\Leftarrow\$ is typeset as $\Leftarrow$.

\$\rightarrow\$ is typeset as $\rightarrow$.

\$\Rightarrow\$ is typeset as $\Rightarrow$.

\{ is typeset as {.

\} is typeset as }.

\$ is typeset as $.

\$ is typeset as $, should be used inside macro arguments.

_ is typeset as _.

\& is typeset as &.

\# is typeset as #.

\% is typeset as %.

\, is typeset as smaller blank -- (between the two -)

\- is used to mark hyphenation in a word.

**** is typeset as a linebreak or marks the end of a column in the `Table` environment.

**** (a \ followed by a blank) is typeset as a blank, although it cannot be used at the beginning of a line to make indentation (see the \SP command).

∼ is typeset as a blank.

\copyright is typeset as ©.

\noindent

\hline inside a `Table` environment.

\item inside a `itemize`, `enumerate`, or `description` environment.

\today November 11, 2008 (see also the `rcsinfo` LᴬTᴇX package).

\ss,\"a, ... \ss = ß, \"a = ä, \"o = ö, \"u = ü, \"A = Ä, \"O = Ö, \"U = Ü. It is allowed to surround these macros in { and } in all places, even inside other macros, e.g.

```
\textbf{\"a\"o\"u\"A\"O\"U\ss}
\textbf{\"a}{\"o}{\"u}{\"A}{\"O}{\"U}{\ss}}
\textbf{äöüÄÖÜß}
```

äöüÄÖÜßäöüÄÖÜß äöüÄÖÜß

If these letters are used in their LATIN-1 8-bit coding, they are translated into the equivalent letter of the desired output format. E.g. Ä becomes `Ä` in HTML and `@"A` in texinfo.

6.7 Conditional Text

latex2man preprocesses the LᴬTᴇX input to allow text to be used conditionally. A special sort of LᴬTᴇX comment is used for that purpose.

- %@% IF *condition* %@%
- %@% ELSE %@%
- %@% END-IF %@%

A line must contain only such a comment and nothing else. *condition* is a boolean expression containing "names" and operators. The names given with the **-C***name* option have the value "true", while all other names occuring in the expression are assumed to be "false". If the evaluation of the boolean expression results in the value "true", the text in the "then"-part is used and the text in the optional "else"-part is skipped (and vice versa). The `IF/ELSE/END-IF` may be nested. As boolean operators the following are allowed:

||	boolean or
&&	boolean and
!	negation

(and) for grouping are allowed.
For example:
%@% IF abc %@%
  abc set
  %@% IF xyz %@%
    xyz set
  %@% ELSE %@%
    xyz NOT set
  %@% END-IF %@%
%@% ELSE %@%
  abc NOT set
  %@% IF xyz || !XYZ %@%
    xyz OR !XYZ set
  %@% ELSE %@%
    xyz OR !XYZ NOT set
  %@% END-IF %@%
%@% END-IF %@%
Run this manual page through *latex2man* with e.g. **-C***'abc XYZ'* and have a look to the generated output. (If simply running the LATEX-document through LATEX, all lines are shown in the .dvi file).
abc set
xyz set
xyz NOT set
abc NOT set
xyz OR !XYZ set
xyz OR !XYZ NOT set
To check the conditional text feature, when *latex2man* is called with

-C*HTML* the lines 1a, 2b, 3b, and 4b;

-C*TEXI* the lines 1b, 2a, 3b, and 4b;

-C*MAN* the lines 1b, 2b, 3a, and 4b;

-C*LATEX* the lines 1b, 2b, 3b, and 4a;

calling LATEX without preprocessing all lines

should be shown:
  1a. This text occurs only when viewing the HTML output.
  1b. The HTML conditional was not set.
  2a. This text occurs only when viewing the TEXI output
  2b. The TEXI conditional was not set.
  3a. This text occurs only when viewing the MAN output
  3b. The MAN conditional was not set.
  4a. This text occurs only when viewing the LATEX output
  4b. The LATEX conditional was not set.

6.8   Translation of User Defined Macros

The user macro translation file (given by the [**-t***transfile*]) contains *Perl* commands specifying the translation of L^AT_EX macros defined by the user. These macros may have none, one or two arguments. The following code is expected:

- Comments start with a # up to the end of the line.

- For a macro \foo with no arguments, the following code must be specified:

  Translation to Man-Pages
  ```
  $manMacro{'foo'}  = '...';
  ```
  Translation to HTML
  ```
  $htmlMacro{'foo'} = '...';
  ```
  Translation to TexInfo
  ```
  $texiMacro{'foo'} = '...';
  ```

  where ... is the translation.

- For a macro \foo{..} with one argument, the following code must be specified:

  Translation to Man-Pages
  ```
  $manMacro1a{'foo'}  = '...';
  $manMacro1b{'foo'}  = '...';
  ```
  Translation to HTML
  ```
  $htmlMacro1a{'foo'} = '...';
  $htmlMacro1b{'foo'} = '...';
  ```
  Translation to TexInfo
  ```
  $texiMacro1a{'foo'} = '...';
  $texiMacro1b{'foo'} = '...';
  ```

  where ... is the translation. The 1a code is used before the argument, while 1b is typeset after the argument is set.

- For a macro \foo{..}{..} with two arguments, the following code must be specified:

  Translation to Man-Pages
  ```
  $manMacro2a{'foo'}  = '...';
  $manMacro2b{'foo'}  = '...';
  $manMacro2c{'foo'}  = '...';
  ```
  Translation to HTML
  ```
  $htmlMacro2a{'foo'} = '...';
  $htmlMacro2b{'foo'} = '...';
  $htmlMacro2c{'foo'} = '...';
  ```
  Translation to TexInfo
  ```
  $texiMacro2a{'foo'} = '...';
  $texiMacro2b{'foo'} = '...';
  $texiMacro2c{'foo'} = '...';
  ```

where **...** is the translation. The `2a` code is used before the first argument, `2b` between the two arguments and `2c` is typeset after the second argument is set.

- The file `latex2man.trans` contains some example code.

6.9   Verbatim Environment

```
This
    {is}
        \texttt{a}
                $test$
                        _of_
verbatim
<this is no HTML tag> and no @* TexInfo command
```

6.10   Subsection works

This is a `\subsection`.

6.10.1   Subsubsection works

This is a `\subsubsection`.

6.10.2   Subsubsection still works

This is another `\subsubsection`.

6.11   General Remarks

1. Empty lines are typeset as paragraph separators.
2. The arguments of the L^AT_EX commands must not be split over several lines.
3. Do not nest calls to macros.
4. Except the mentioned environment and macros, the usage of other L^AT_EX environments or macros are not translated. Their usage will cause garbage in the output.
5. *latex2man* requires Perl version $>= 5.0004\_03$.
6. If you want to install the system with the distributed `Makefile`, you need GNU-*make*. If you don't have it, you should execute the steps shown in the `Makefile` manually.

6.12 Some Bug Fix Tests

Leading . and ' Now leading . and ' in generation troff output should work propperly, since a `\&` is added. Therfore the `\Dot` macro has been deleted. Thanks to `Frank.Schilder@Mathematik.Tu-Ilmenau.De`. Testcase 1:

'\n' ...

Testcase 2:
`.foobar` Testcase 3:
. . .

abc . . .abc . efg ' 123

% in verbatim A % in a `\verb` and verbatim-environment was not emitted correctly. Thanks to Aleksey Nogin `nogin@cs.caltech.edu` for the bug report and bug fix.

```
% abc
```

```
  % abc %
```

but ignore comments following this:

7 Requirements

Perl *latex2man* requires Perl version $>= 5.0004\_03$.

Make If you want to install the system with the distributed `Makefile`, you need GNU-*make*. If you don't have it, you should execute the steps shown in the `Makefile` manually.

LaTeX LaTeX2e is required.

8 Changes

```
              Change history of the latex2man package
              =======================================

$Id: CHANGES,v 1.60 2008/11/11 07:18:18 vollmer Exp $
1.23   11 Nov  2008      - use /usr/bin/env to locate the perl interpreter
                           Thanks to "J.R. Mauro" <jrm8005-at-gmail.com>
1.22   05 Dec  2007      - Fixed TROFF code generation if none of -H -T -M -L
                           is given.
1.21   05 Jul  2007      - Fixed Makefile
1.20   24 Apr  2007      - Added optional parameter to Table-environment
                         - Fixed generataion of tbl-tables.
1.19   12 Sep  2005      - Thanks to Aleksey Nogin <nogin@cs.caltech.edu> for
```

```
                          his bugfix of the problem he found:
                          "I came across another issue in the latest
                           latex2man - if the source file has "\verb+.foo+" in
                           it, then the ".foo" will be copied to the man page
                           verbatim and if it happens to be placed on the
                           beginning of a line, then troff will consider it to
                           be a command and not display it properly."
1.18   20 July 2005     - latex2man.sty: Removed option pdf.
1.17   14 Oct  2004     - Fixed order of gerating &amp; for HTML
                          (Thanks to Aleksey Nogin <nogin@cs.caltech.edu>)
1.16   06 Sep  2004     - Fixed handling of % in \verb+..+ and verbatim
                          environments
                          (Thanks to  Aleksey Nogin <nogin@cs.caltech.edu>)
                        - added \subsubsection
1.15   12 Dec  2001     - added extra stuff in the headline of man pages
                          (thanks to Andrew Anderson <aja@emulab.ee.mu.oz.au>)
1.14   18 June 2001     - TROFF generation: fixed handling of leading . and '
                        - removed macro \Dot
1.13   08 May  2001     - Added \begin{center} / \end{center}.
                        - Reimplemented font changing stuff in TROFF
                          generation (use now troff instead of -man commands).
1.12.3 10 Apr  2001     - Fixed \oOptArg in man output.
1.12.2 12 Mar  2001     - Fixed handling of conditional translation to LaTeX
                          (if in a IF .. ELSE .. END-IF, the condition
                           evaluates to true, the ELSE and END-IF are written
                           to the result file, but not the IF...
                           Now all %@% directives are written.)
1.12.1 13 Sep  2000     - In \setDate and \setVersion a ~ is replaced by the
                          output specific blank.
1.12   28 Aug  2000     - Fixed error in htmlVerb (thanks to
                          Glunz Wolfgang <Wolfgang.Glunz@icn.siemens.de>)
                        - Fixed error in conditional text handling:
                          (%@%ELSE%@% was not handled correct).
1.11   25 Aug  2000     - Fixed error in conditional text handling:
                          (MAN was not enabled by default, when calling
                           with -M).
                        - Added eror message, if arguments of \begin{Name},
                          \section, and \subsection are not contained on a
                          single line.
1.10.1 21 Aug  2000     - Better handling of \Tilde.
1.10   13 Jun  2000     - added \Begin{Description}[label] (based on an idea of
                          Andi Winter <winter@cocolab.de>)
                        - Thanks to  Andi Winter <winter@cocolab.de>:
                          - fixed: removed wrong line break in date for
                            TROFF output
                          - fixed wrong line breaks in some TROFF macros
                          - fixed wrong output of optional arguments in TROFF
                          - allow spaces between '\item' and following '['
1.9.1  20 Mar  2000     - added \OptoArg \oOptoArg Option with optional
                          argument (Thanks to Andi Winter <winter@cocolab.de>)
```

```
1.9    13 Mar   2000    - latex2man.sty: Added option pdf.
                          latex2man:    define names HTML TEXI MAN LATEX
                                        automatically.
1.8    11 Feb   2000    - Added verbatim environment (many thanks to
                          "Olaf Maibaum" <Maibaum@Informatik.Uni-Oldenburg.DE>
                          who provided me the troff generation code)
                        - Added better handling of german Umlaut
                        - Fixed minor HTML tag mismatch.
1.7.1  17 Nov   1999    - Fixed END_IF handling of -L option.
1.7    25 July  1999    - Allow german Umlaute to be written as \"a, etc.
1.6.4  30 May   1999    - Added fix of Frank.Schilder@Mathematik.TU-Ilmenau.DE
                          line 418: from
                                  if ($manRS == 0 && $list_nest > 0) {
                          to
                                  if ($manRS == 0 && $list_nest > 1) {
                          line 471: from

                                  #    manParagraph;
                          to
                                       manParagraph;
1.6.3  25 Mar   1999    - Added \,  Math stuff is matched now after macro
                          arguments
1.6.2  21 Nov   1998    - Added \LBr / \RBr, added \setlength{}{} and \itemsep
                          \Dollar $\ge$, $\le$, $\leftarrow$, $\Leftarrow$,
                          $\rightarrow$, $\Rightarrow$.
1.6.1  14 Sep   1998    - Added $<=$, $>=$, $=$ $<>$.
1.6    08 Sep   1998    - Added \SP macro.
                        - Hyphenation \- is translated for TexInfo into @-.
                        - Runs now under older Versions of Perl (e.g. 5.03).
1.5    22 Aug   1998    - Support for the fanyhdr package, added latex2man.cfg
                        - Now \% and \- work.
1.4    23 July  1998    - Fixed typos.
                        - Fixed generated HTML
                            The following is wrong: <a ..> <h..>....</h..></a>
                            Correct is:             <h..><a ..>...</a></h..>
1.3    03 June  1998    - Add conditional text feature
1.2    18 Jan   1998    - Enumerate/itemize/description environments may
                          be nested now.
                        - Output specific line break macros.
1.1    14 Jan   1998    - Fixed bug in HTML generation (no blanks emited
                          after \hline)
1.0    11 Jan   1998    - Initial version
```

Please check the file `latex2man-CHANGES` for the list of changes.

9   Version

Version: 1.23 of November 11, 2008.

10 License and Copyright

Copyright © 1998, Dr. Jürgen Vollmer, Viktoriastraße 15, D-76133 Karlsruhe, Germany, `Juergen.Vollmer@informatik-vollmer.de`

The actual version of *Latex2man* may be found on my homepage `http://www.informatik-vollmer.de/software/latex2man.html`.

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