



Linux Ubuntu 26.04 Manual Pages on command 'troff.1'

\$ man troff.1

troff(1) General Commands Manual troff(1)

Name

troff - GNU roff typesetter and document formatter

Synopsis

```
troff [-abcCEiRUz] [-d ctext] [-d string=text] [-f font-family] [-F font-directory]
      [-I inclusion-directory] [-m macro-package] [-M macro-directory] [-n page-number]
      [-o page-list] [-r cnumeric-expression] [-r register=numeric-expression] [-T output-
      device] [-w warning-category] [-W warning-category] [file ...]
```

troff --help

troff -v

troff --version

Description

GNU troff transforms groff(7) language input into the device-independent output format described in groff_out(5); troff is thus the heart of the GNU roff document formatting system.

If no file operands are given on the command line, or if file is `?-?`, the standard input stream is read.

GNU troff is functionally compatible with the AT&T troff typesetter and features numerous extensions. Many people prefer to use the groff(1) command, a front end which also runs preprocessors and output drivers in the appropriate order and with appropriate options.

Options

-h and --help display a usage message, while -v and --version show version information; all exit afterward.

-a Generate a plain text approximation of the typeset output. The read-only register .A

is set to 1. This option produces a sort of abstract preview of the formatted output.

? Page breaks are marked by a phrase in angle brackets; for example, ?<beginning of page>?.

? Lines are broken where they would be in the formatted output.

? A horizontal motion of any size is represented as one space. Adjacent horizontal motions are not combined. Inter-sentence space nodes (those arising from the sec?ond argument to the .ss request) are not represented.

? Vertical motions are not represented.

? Special characters are rendered in angle brackets; for example, the default soft hyphen character appears as ?<hy>?.

The above description should not be considered a specification; the details of -a output are subject to change.

-b Write a backtrace reporting the state of troff's input parser to the standard error stream with each diagnostic message. The line numbers given in the backtrace might not always be correct, because troff's idea of line numbers can be confused by requests that append to macros.

-c Start with color output disabled.

-C Enable AT&T troff compatibility mode; implies -c. See groff_diff(7).

-d ctext

-d string=text

Define roff string c or string as text. c must be one character; string can be of arbitrary length. Such string assignments happen before any macro file is loaded, including the startup file. Due to getopt_long(3) limitations, c cannot be, and string cannot contain, an equals sign, even though that is a valid character in a roff identifier.

-E Inhibit troff error messages; implies -Ww. This option does not suppress messages sent to the standard error stream by documents or macro packages using tm or related requests.

-f fam Use fam as the default font family.

-F dir Search in directory dir for the selected output device's directory of device and font description files. See the description of GROFF_FONT_PATH in section ?Environment? below for the default search locations and ordering.

-i Read the standard input stream after all named input files have been processed.

-I dir Search the directory dir for files (those named on the command line; in psbb, so, and soquiet requests; and in ?\X'ps: import'?, ?\X'ps: file'?, and ?\X'pdf: pdfpic'? de? vice control escape sequences). -I may be specified more than once; each dir is searched in the given order. To search the current working directory before others, add ?-I .? at the desired place; it is otherwise searched last. -I works similarly to, and is named for, the ?include? option of Unix C compilers.

-m name

Process the file name.tmac prior to any input files. If not found, tmac.name is at? tempted. name (in both arrangements) is presumed to be a macro file; see the de? scription of GROFF_TMAC_PATH in section ?Environment? below for the default search locations and ordering.

-M dir Search directory dir for macro files. See the description of GROFF_TMAC_PATH in sec? tion ?Environment? below for the default search locations and ordering.

-n num Begin numbering pages at num. The default is 1.

-o list

Output only pages in list, which is a comma-separated list of inclusive page ranges; n means page n, m-n means every page between m and n, -n means every page up to n, and n- means every page from n on. troff stops processing and exits after formatting the last page enumerated in list.

-r cnumeric-expression

-r register=numeric-expression

Define roff register c or register as numeric-expression. c must be a one-character name; register can be of arbitrary length. Such register assignments happen before any macro file is loaded, including the startup file. Due to getopt_long(3) limita? tions, c cannot be, and register cannot contain, an equals sign, even though that is a valid character in a roff identifier.

-R Don't load troffrc and troffrc-end.

-T dev Prepare output for device dev. The default is ps; see groff(1).

-U Operate in unsafe mode, enabling the open, opena, pi, pso, and sy requests, which are disabled by default because they allow an untrusted input document to write to arbi? trary file names and run arbitrary commands. This option also adds the current di? rectory to the macro package search path; see the -m and -M options above.

-w name

-W name

Enable (-w) or inhibit (-W) warnings in category name. See section "Warnings" below.

-z Suppress formatted output.

Warnings

Warning diagnostics emitted by troff are divided into named, numbered categories. The name associated with each warning category is used by the -w and -W options. Each category is also assigned a power of two; the sum of enabled category codes is used by the warn request and the .warn register. Warnings of each category are produced under the following circumstances.

??

? Bit Code Category ? Bit Code Category ?

??

? 0	1	char	? 10	1024	reg	?
? 1	2	number	? 11	2048	tab	?
? 2	4	break	? 12	4096	right-brace	?
? 3	8	delim	? 13	8192	missing	?
? 4	16	el	? 14	16384	input	?
? 5	32	scale	? 15	32768	escape	?
? 6	64	range	? 16	65536	space	?
? 7	128	syntax	? 17	131072	font	?
? 8	256	di	? 18	262144	ig	?
? 9	512	mac	? 19	524288	color	?
?			? 20	1048576	file	?

??

break 4 A filled output line could not be broken such that its length was less than the output line length \n[.]. This category is enabled by default.

char 1 No mounted font defines a glyph for the requested character. This category is enabled by default.

color 524288 An undefined color name was selected, an attempt was made to define a color using an unrecognized color space, an invalid component in a color definition was encountered, or an attempt was made to redefine a default

color.

delim 8 The closing delimiter in an escape sequence was missing or mismatched.

di 256 A di, da, box, or boxa request was invoked without an argument when there was no current diversion.

el 16 The el request was encountered with no prior corresponding ie request.

escape 32768 An unsupported escape sequence was encountered.

file 1048576 An attempt was made to load a file that does not exist. This category is enabled by default.

font 131072 A non-existent font was selected, or the selection was ignored because a font selection escape sequence was used after the output line continuation escape sequence on an input line. This category is enabled by default.

ig 262144 An invalid escape sequence occurred in input ignored using the ig request. This warning category diagnoses a condition that is an error when it occurs in non-ignored input.

input 16384 An invalid character occurred on the input stream.

mac 512 An undefined string, macro, or diversion was used. When such an object is dereferenced, an empty one of that name is automatically created. So, unless it is later deleted, at most one warning is given for each. This warning is also emitted upon an attempt to move an unplanted trap macro. In such cases, the unplanted macro is not dereferenced, so it is not created if it does not exist.

missing 8192 A request was invoked with a mandatory argument absent.

number 2 An invalid numeric expression was encountered. This category is enabled by default.

range 64 A numeric expression was out of range for its context.

reg 1024 An undefined register was used. When an undefined register is dereferenced, it is automatically defined with a value of 0. So, unless it is later deleted, at most one warning is given for each.

right-brace 4096 A right brace escape sequence \} was encountered where a number was expected.

scale 32 A scaling unit inappropriate to its context was used in a numeric expression.

- space 65536 A space was missing between a request or macro and its argument. This warning is produced when an undefined name longer than two characters is encountered and the first two characters of the name constitute a defined name. No request is invoked, no macro called, and an empty macro is not defined. This category is enabled by default. It never occurs in compatibility mode.
- syntax 128 A self-contradictory hyphenation mode was requested; an empty or incomplete numeric expression was encountered; an operand to a numeric operator was missing; an attempt was made to define a recursive, empty, or nonsensical character class; or a groff extension conditional expression operator was used while in compatibility mode.
- tab 2048 A tab character was encountered where a number was expected, or appeared in an unquoted macro argument.

Two warning names group other warning categories for convenience.

- all All warning categories except di, mac, and reg. This shorthand is intended to produce all warnings that are useful with macro packages and documents written for AT&T troff and its descendants, which have less fastidious diagnostics than GNU troff.
- w All warning categories. Authors of documents and macro packages targeting groff are encouraged to use this setting.

Environment

GROFF_FONT_PATH and GROFF_TMAC_PATH each accept a search path of directories; that is, a list of directory names separated by the system's path component separator character. On Unix systems, this character is a colon (:); on Windows systems, it is a semicolon (;).

GROFF_FONT_PATH

A list of directories in which to seek the selected output device's directory of device and font description files. troff will scan directories given as arguments to any specified -F options before these, then in a site-specific directory (/usr/share/groff/site-font), a standard location (/usr/share/groff/1.23.0/font), and a compatibility directory (/usr/lib/font) after them.

GROFF_TMAC_PATH

A list of directories in which to search for macro files. troff will scan directories given as arguments to any specified -M options before these, then the current directory (only if in unsafe mode), the user's home directory, a site-specific direc?

tory (/usr/share/groff/site-tmac), and a standard location (/usr/share/groff/1.23.0/tmac) after them.

GROFF_TYPESETTER

Set the default output device. If empty or not set, ps is used. The -T option overrides GROFF_TYPESETTER.

SOURCE_DATE_EPOCH

A timestamp (expressed as seconds since the Unix epoch) to use as the output creation timestamp in place of the current time. The time is converted to human-readable form using gmtime(3) and asctime(3) when the formatter starts up and stored in registers usable by documents and macro packages.

TZ The time zone to use when converting the current time to human-readable form; see tzset(3). If SOURCE_DATE_EPOCH is used, it is always converted to human-readable form using UTC.

Files

/usr/share/groff/1.23.0/tmac/troffrc

is an initialization macro file loaded before any macro packages specified with -m options.

/usr/share/groff/1.23.0/tmac/troffrc-end

is an initialization macro file loaded after all macro packages specified with -m options.

/usr/share/groff/1.23.0/tmac/name.tmac

are macro files distributed with groff.

/usr/share/groff/1.23.0/font/devname/DESC

describes the output device name.

/usr/share/groff/1.23.0/font/devname/F

describes the font F of device name.

troffrc and troffrc-end are sought neither in the current nor the home directory by default for security reasons, even if the -U option is specified. Use the -M command-line option or the GROFF_TMAC_PATH environment variable to add these directories to the search path if necessary.

Authors

The GNU version of troff was originally written by James Clark; he also wrote the original version of this document, which was updated by Werner Lemberg, Bernd Warken, and G. Branden

Robinson.

See also

Groff: The GNU Implementation of troff, by Trent A. Fisher and Werner Lemberg, is the primary groff manual. You can browse it interactively with `?info groff?`.

`groff(1)`

offers an overview of the GNU roff system and describes its front end executable.

`groff(7)`

details the groff language, including a short but complete reference of all predefined requests, registers, and escape sequences.

`groff_char(7)`

explains the syntax of groff special character escape sequences, and lists all special characters predefined by the language.

`groff_diff(7)`

enumerates the differences between AT&T device-independent troff and groff.

`groff_font(5)`

covers the format of groff device and font description files.

`groff_out(5)`

describes the format of troff's output.

`groff_tmac(5)`

includes information about macro files that ship with groff.

`roff(7)`

supplies background on roff systems in general, including pointers to further related documentation.

groff 1.23.0

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