

**NAME**

**mdoc** – quick reference guide for the **-mdoc** macro package

**SYNOPSIS**

**groff -mdoc files . . .**

**DESCRIPTION**

The **-mdoc** package is a set of content-based and domain-based macros used to format the BSD man pages. The macro names and their meanings are listed below for quick reference; for a detailed explanation on using the package, see the tutorial sampler `mdoc.samples(7)`.

Note that this is not the usual macro package for Linux documentation, although it is used for documentation of several widely used programs; see `man(7)`.

The macros are described in two groups, the first includes the structural and physical page layout macros. The second contains the manual and general text domain macros which differentiate the **-mdoc** package from other `troff` formatting packages.

**PAGE STRUCTURE DOMAIN****Title Macros**

To create a valid manual page, these three macros, in this order, are required:

<b>.Dd</b>	<i>Month day, year</i>	Document date.
<b>.Dt</b>	<i>DOCUMENT_TITLE [section] [volume]</i>	Title, in upper case.
<b>.Os</b>	<i>OPERATING_SYSTEM [version/release]</i>	Operating system (BSD).

**Page Layout Macros**

Section headers, paragraph breaks, lists and displays.

<b>.Sh</b>	Section Headers.	Valid headers, in the order of presentation:
	<i>NAME</i>	Name section, should include the <b>.Nm</b> or <b>.Fn</b> and the <b>.Nd</b> macros.
	<i>SYNOPSIS</i>	Usage.
	<i>DESCRIPTION</i>	General description, should include options and parameters.
	<i>RETURN VALUE</i>	Sections two and three function calls.
	<i>ENVIRONMENT</i>	Describe environment variables.
	<i>FILES</i>	Files associated with the subject.
	<i>EXAMPLES</i>	Examples and suggestions.
	<i>DIAGNOSTICS</i>	Normally used for section four device interface diagnostics.
	<i>ERRORS</i>	Sections two and three error and signal handling.
	<i>SEE ALSO</i>	Cross references and citations.
	<i>CONFORMING TO</i>	Conformance to standards if applicable.
	<i>HISTORY</i>	If a standard is not applicable, the history of the subject should be given.
	<i>BUGS</i>	Gotchas and caveats.
	<i>other</i>	Customized headers may be added at the authors discretion.
<b>.Ss</b>	Subsection Headers.	
<b>.Pp</b>	Paragraph Break.	Vertical space (one line).
<b>.Dl</b>	(D-one) Display-one	Indent and display one text line.
<b>.Dl</b>	(D-ell) Display-one	literal. Indent and display one line of literal text.
<b>.Bd</b>	Begin-display block.	Display options:
	<b>-ragged</b>	Unjustified (ragged edges).

<b>-filled</b>	Justified.
<b>-literal</b>	Literal text or code.
<b>-file</b> <i>name</i>	Read in named <i>file</i> and display.
<b>-offset</b> <i>string</i>	Offset display. Acceptable <i>string</i> values:
	<i>left</i> Align block on left (default).
	<i>center</i> Approximate center margin.
	<i>indent</i> Six constant width spaces (a tab).
	<i>indent-two</i> Two tabs.
	<i>right</i> Left aligns block 2 inches from right.
	<i>xxn</i> Where <i>xx</i> is a number from 4 <i>n</i> to 99 <i>n</i> .
	<i>Aa</i> Where <i>Aa</i> is a callable macro name.
	<i>string</i> The width of <i>string</i> is used.

.Ed End-display (matches .Bd).

.Bl Begin-list. Create lists or columns. Options:

*List-types*

- bullet** Bullet Item List
- item** Unlabeled List
- enum** Enumerated List
- tag** Tag Labeled List
- diag** Diagnostic List
- hang** Hanging Labeled List
- ohang** Overhanging Labeled List
- inset** Inset or Run-on Labeled List

*List-parameters*

- offset** (All lists.) See .Bd begin-display above.
- width** (-tag and -hang lists only.) See .Bd.
- compact** (All lists.) Suppresses blank lines.

.El End-list.

.It List item.

## MANUAL AND GENERAL TEXT DOMAIN MACROS

The manual and general text domain macros are special in that most of them are parsed for callable macros for example:

```
.Op Fl s Ar file
    Produces [ -s file]
```

In this example, the option enclosure macro .Op is parsed, and calls the callable content macro 'Fl' which operates on the argument 's' and then calls the callable content macro 'Ar' which operates on the argument file. Some macros may be callable, but are not parsed and vice versa. These macros are indicated in the *parsed* and *callable* columns below.

Unless stated, manual domain macros share a common syntax:

```
.Va argument [ . , ; : ( ) [ ] argument ... ]
```

**Note:** Opening and closing punctuation characters are only recognized as such if they are presented one at a time. The string ') , ' is not recognized as punctuation and will be output with a leading white space and in what ever font the calling macro uses. The argument list ] ) , is recognized as three sequential closing punctuation characters and a leading white space is not output between the characters and the previous argument (if any). The special meaning of a punctuation character may be escaped with the string '\&'. For example the following string,

`.Ar file1 , file2 , file3 ) .` Produces *file1, file2, file3*).

### Manual Domain Macros

<i>Name</i>	<i>Parsed</i>	<i>Callable</i>	<i>Description</i>
Ad	Yes	Yes	Address. (This macro may be deprecated.)
An	Yes	Yes	Author name.
Ar	Yes	Yes	Command-line argument.
Cd	No	No	Configuration declaration (section four only).
Cm	Yes	Yes	Command-line argument modifier.
Dv	Yes	Yes	Defined variable (source code).
Er	Yes	Yes	Error number (source code).
Ev	Yes	Yes	Environment variable.
Fa	Yes	Yes	Function argument.
Fd	Yes	Yes	Function declaration.
Fn	Yes	Yes	Function call (also .Fo and .Fc).
Ic	Yes	Yes	Interactive command.
Li	Yes	Yes	Literal text.
Nm	Yes	Yes	Command name.
Op	Yes	Yes	Option (also .Oo and .Oc).
Ot	Yes	Yes	Old style function type (Fortran only).
Pa	Yes	Yes	Pathname or filename.
St	Yes	Yes	Standards (–p1003.2, –p1003.1 or –ansiC)
Va	Yes	Yes	Variable name.
Vt	Yes	Yes	Variable type (Fortran only).
Xr	Yes	Yes	Manual Page Cross Reference.

### General Text Domain Macros

<i>Name</i>	<i>Parsed</i>	<i>Callable</i>	<i>Description</i>
%A	Yes	No	Reference author.
%B	Yes	Yes	Reference book title.
%C	No	No	Reference place of publishing (city).
%D	No	No	Reference date.
%J	Yes	Yes	Reference journal title.
%N	No	No	Reference issue number.
%O	No	No	Reference optional information.
%P	No	No	Reference page number(s).
%R	No	No	Reference report Name.
%T	Yes	Yes	Reference article title.
%V	No	No	Reference volume.
Ac	Yes	Yes	Angle close quote.
Ao	Yes	Yes	Angle open quote.
Ap	Yes	Yes	Apostrophe.
Aq	Yes	Yes	Angle quote.
At	No	No	AT&T UNIX
Bc	Yes	Yes	Bracket close quote.
Bf	No	No	Begin font mode.
Bo	Yes	Yes	Bracket open quote.
Bq	Yes	Yes	Bracket quote.
Bx	Yes	Yes	BSD.

Db	No	No	Debug (default is "off")
Dc	Yes	Yes	Double close quote.
Do	Yes	Yes	Double open quote.
Dq	Yes	Yes	Double quote.
Ec	Yes	Yes	Enclose string close quote.
Ef	No	No	End font mode.
Em	Yes	Yes	Emphasis (traditional English).
Eo	Yes	Yes	Enclose string open quote.
Fx	No	No	FreeBSD operating system
No	Yes	Yes	Normal text (no-op).
Ns	Yes	Yes	No space.
Pc	Yes	Yes	Parenthesis close quote.
Pf	Yes	No	Prefix string.
Po	Yes	Yes	Parenthesis open quote.
Pq	Yes	Yes	Parentheses quote.
Qc	Yes	Yes	Straight Double close quote.
Ql	Yes	Yes	Quoted literal.
Qo	Yes	Yes	Straight Double open quote.
Qq	Yes	Yes	Straight Double quote.
Re	No	No	Reference end.
Rs	No	No	Reference start.
Rv	No	No	Return values (sections two and three only).
Sc	Yes	Yes	Single close quote.
So	Yes	Yes	Single open quote.
Sq	Yes	Yes	Single quote.
Sm	No	No	Space mode (default is "on")
Sx	Yes	Yes	Section Cross Reference.
Sy	Yes	Yes	Symbolic (traditional English).
Tn	Yes	Yes	Trade or type name (small Caps).
Ux	Yes	Yes	UNIX
Xc	Yes	Yes	Extend argument list close.
Xo	Yes	Yes	Extend argument list open.

Macro names ending in ‘q’ quote remaining items on the argument list. Macro names ending in ‘o’ begin a quote which may span more than one line of input and are close quoted with the matching macro name ending in ‘c’. Enclosure macros may be nested and are limited to eight arguments.

Note: the extended argument list macros (.Xo, .Xc) and the function enclosure macros (.Fo, .Fc) are irregular. The extended list macros are used when the number of macro arguments would exceed the `troff` limitation of nine arguments.

The macros UR (starting a URI/URL hypertext reference), UE (ending one), and UN (identifying a target for a reference) are also available. See `man(7)` for more information on these macros.

## FILES

<code>doc.tmac</code>	Manual and general text domain macros.
<code>tmac/doc-common</code>	Common structural macros and definitions.
<code>tmac/doc-nroff</code>	Site dependent <code>nroff</code> style file.
<code>tmac/doc-ditroff</code>	Site dependent <code>troff</code> style file.
<code>tmac/doc-syms</code>	Special defines (such as the standards macro).

**SEE ALSO**

`groff_mdock(7)`, `mdoc.samples(7)`, `man(7)`, `man-pages(7)`

**COLOPHON**

This page is part of release 3.22 of the Linux *man-pages* project. A description of the project, and information about reporting bugs, can be found at <http://www.kernel.org/doc/man-pages/>.