

## 28 - Help under Linux

- **Different methods fo getting help under Linux:**
  - `man`, `xman`                   eg. `man topic` (q for quit)
  - `xman -notopbox`
  - `info`, `xinfo`                   eg. `info topic` (q for quit)
  - `/usr/share/doc/howto`
  - `/usr/share/doc/packages/`
  - **SuSE Help system**
  - Linux Documentation Project which is responsible for:
    - ManPages
    - FAQs
    - HOWTOs
    - Tutorials

<b>Finding Help on topics(locally)</b>	<b>Finding Help using Internet</b>
<code>apropos theme</code>	Linux Document Project at <a href="http://www.tfpd.org">www.tfpd.org</a>
<code>whatis command</code>	Internet Linux sites. eg. <a href="http://www.linux.org">www.linux.org</a>
<code>man [type] command</code>	Internet search engines eg. <a href="http://www.google.com/linux">www.google.com/linux</a> etc.
Docs in <code>/usr/share/doc/*</code>	
<code>rpm -qi packagename</code>	
FAQs documents (Frequently Asked Questions)	
HowTO's in <code>/usr/share/doc/howto</code>	

**`apropos topic`** Searches for the topic in the keywords and short descriptions, of the `whatis (/usr/share/man/whatis)` database and displays them all. Same result as: `man -k topic`

**`whatis command`** Searches the man pages keywords and presents the first short description of the command. The exact command must be found otherwise nothing is displayed. It displays the single line description found in the manpage. It first searches in the man page index and then in its own database if the man page index file is not found.  
**Note:** The `whatis` database is `/usr/man/whatis.` or `/usr/share/man/whatis` or `/var/cache/man/whatis`  
 It is created/updated using the `makewhatis` command.

**`whatis -r topic`**  
 Same as above `apropos` except the `topic` is searched only in the keywords and not in the short descriptions. It shows all the occurences found. Same result as `man -f topic`  
 eg. `whatis -r isdn`

- **Man pages**

Man pages (`man` command) are used to look-up certain commands and their use. Man pages are divided in 9 types(sections).

- **Syntax:** `man [options] [type] commandname`  
`type` (optional)

- 1 Executable programs or shell commands
- 2 System calls (functions provided by the kernel)
- 3 Library calls (functions within program libraries)
- 4 Special files (usually found in `/dev`)
- 5 File formats, configuration files and conventions eg. `/etc/passwd`
- 6 Games
- 7 Miscellaneous (including macro packages and conventions), e.g. `man(7)`, `groff(7)`
- 8 System administration commands (usually only for `root`)
- 9 Kernel routines [Non standard]

- Note: When no type is given, the type search sequence until one is found is:  
`1,8,2,3,4,5,6,7,9`

`commandname` : any command that has man pages. eg. `man ls`

- **Files, programs and variables:**

<code>/usr/bin/mandb</code>	Program to create or update the manpages caches.
<code>MANPATH</code>	Contains the PATHs where <code>mandb</code> looks while indexing pages.
<code>/usr/bin/manpath</code>	Program to display the paths searched for manpages.
<code>/etc/manpath.config</code>	<code>mandb</code> configuration file.
<code>/usr/share/man/index.(bt   db   dir   pag)</code> or	A traditional global index database cache.
<code>/var/cache/man/index.(bt   db   dir   pag)</code>	Alternate/FHS compliant global index database cache.

- **Locations of man pages:**

<code>/usr/man/*</code>	Old location of man pages
<code>/usr/share/man/*</code>	A global manual page hierarchy.
<code>/usr/local/man/*</code>	Extra user's commands man pages.
<code>/usr/local/share/man/*</code>	" " " "
<code>/usr/X11R6/man/*</code>	X11 Applications man pages
<code>/opt/gnome/man/*</code>	Gnome Desktop applications man pages
<code>/opt/kde3/man/*</code>	KDE Desktop applications man pages
<code>/usr/openwin/man/*</code>	Openwindows Desktop applications man pages
<code>/var/cache/man/*</code>	<code>catman</code> pages files and Index of manpages

**Note:** Most man pages in these directories are classified in subdirectories by their respective type (sections) eg. `.../man1/ .../man2/`

The `man` pages are normally in compressed(`.gz`) GROFF source format. are decompressed automatically before the page is displayed.

The `cat` pages are preformatted Text man pages including the formatting characters. They are normally saved in `.../cat1 .../cat2 ...` directories

- **manpath**

The program `manpath` can be used to display the PATH used to search the man pages. If `MANPATH` is set, `manpath` will simply display its contents and issue a warning. This program is also used to determine the paths to search if the `MANPATH` variable is not set.

**eg:** `> manpath`

```
manpath: warning: $MANPATH set, ignoring /etc/manpath.config /
usr/local/man:/usr/share/man:/usr/man:/usr/X11R6/man:/usr/openwin/man
If not, manpath will determine a suitable manual page hierarchy search path from the
configuration file (/etc/manpath.config) and display the results.
```

- **Pager**

The man pages use the **pager** (usually `/bin/less`) to display the page.

It can be changes by changing the environment variable **PAGER**.

**eg.** `export PAGER=/bin/more` Or `export PAGER=/bin/nroff`

**or:** `man -P"less -X" command`

Uses `less -X` as Pager. This displays the man page but leaves the X-terminal content as-is when leaving man .

- **man command Examples:**

`man n command` Display the man page for the `command` in the section `n`  
 eg. `man 8 mount` (displays the mount administration command)  
`man 2 mount` (displays the mount system call)

`man -a command` Display **all** the man page for the `command` . They are displayed one after the other, each one being terminated with 'q'.

`man -k command` Same as `apropos`. Displays all the man titles subjects relating to this topic. The `command` is searched in the keywords as well as in the short descriptions eg. `man -k isdn`

- **man pages filters and GUIs:**

GUIs: `tkman` and `xman`

Filters: `rman`

- **Filters Examples:**

- To convert a man page to HTML format of command `ls`

```
zcat $(whereis -m ls | cut -d" " -f2) | rman -n ls -f HTML \
> ls.1.html
```

- To show it in w3m browser instead of saving it as a file:

```
zcat $(whereis -m ls | cut -d" " -f2) | rman -n ls -f HTML \
| w3m -T text/html
```

- To convert a man page to PDF format of a command eg. command `ip`

```
zcat $(whereis -m ip | cut -d" " -f2) | groff -mandoc\
| ps2pdf - - > man.ls.1.pdf
```

- To show it in GhostView instead of saving it in a file:

```
zcat $(whereis -m ip | cut -d" " -f2) | groff -mandoc\
| ps2pdf - - | gv -
```

- To convert a man page in plain text format plain ASCII text version of the man page without escape characters or character formatting or colors etc.

```
man command | col -b
```

- **man command options:**

-a, --all	find all matching manual pages.
-d, --debug	emit debugging messages.
-e, --extension	limit search to extension type `extension'.
-f, --whatis	equivalent to whatis.
-k, --apropos	equivalent to apropos.
-w, --where, --location	print physical location of man page(s).
-l, --local-file	interpret `page' argument(s) as local filename(s).
-u, --update	force a cache consistency check.
-r, --prompt string	provide the `less' pager with a prompt
-c, --catman	used by catman to reformat out of date cat pages.
-7, --ascii	display ASCII translation of certain latin1 chars.
-D, --default	reset all options to their default values.
-M, --manpath path	set search path for manual pages to `path'.
-P, --pager pager	use program `pager' to display output.
-S, --sections list	use colon separated section list.
-m, --systems system	search for man pages from other unix system(s).
-L, --locale locale	define the locale for this particular man search.
-p, --preprocessor string	string indicates which preprocessors to run. e - [n]eqn    p - pic    t - tbl g - grap     r - refer   v - vgrind
-V, --version	show version.
-h, --help	show this usage message.

- **INFO Pages**

Info pages are supposed to have more information than the man pages. Some individuals write a short description of their programs in the man pages and a longer one in the info pages.

**Syntax:**

```
info [OPTIONS] [command] [subsection]
```

**Navigation through info pages**

```

d    directory
h    help
b    begin of node
e    end
s    search * find
<space> - move forward, Page-Down-Key
<Backspace> move backward, Page-Up-Key
u    up node
n    next node
p    previous node
l    last text displayed

```

- **catman**

Creates or updates the pre-formatted manual pages.

catman is used to create an up to date set of pre-formatted manual pages known as **cat pages**. Cat pages are generally much faster to display than the original manual pages, but require extra storage space. Normally the man pages are in GROFF format, normally man searches for a preformatted cat page, if not found it then must convert the man page into a format readable by and adjusted to the present terminal. When catman runs, it formats the man pages documents, making the displaying of large man pages quite faster but at the expenses of HD space. The decision to support cat pages is that of the local administrator, who must provide suitable directories to contain them. catman works with the variables MANSECT and MANPATH, if MANSECT is not set.

**Syntax:**

```
catman [-dhV] [-M path] [section] ...
```

**Exercises:****info ls**

d, Bild v bis zu ls

\* ls (fileutils)ls invocation.

List directory content

.

.

Unix. Also see \* Note Common options::.

\* Menu::

\* Which files are listed::

\* What information is listed::

\* Sorting the output::

\* More details about version sort::

\* General Output formatting::

\* Formatting the file names::

**Invoking info in emacs:**

&lt;Strg&gt;h i

**Übung(12):****HOWTO**

```
cd /usr/doc
ls (howto, packages, sdb, support-db, susehlf)
cd howto
ls
cd de
ls
less DE-Drucker-HOWTO.txt.gz
cd ../en
ls
cd mini
less LILO.gz
```

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**Übung(13):****doc of packages**

```
cd ../../../../packages oder cd /usr/doc/packages
ls
cd gftp
less USER-GUIDE
```

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**Übung(14):**

**SuSe-Hilfesystem** (Pakete sdb, sdb\_de, susehlf in Serie doc)  
in Netscape <http://localhost/hilfe>

oder in kfmclient: <http://localhost/hilfe/>  
Support-Datenbank - lokal mit Suchfunktion  
Stichwortsuche  
netscape

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