

# 1 Terminal

## 1.1 Introduction

```
> uname -mns
Darwin imac.local i386
Report bugs to <bug-coreutils@gnu.org>.
> uname -mns
Darwin mbkp.local i386
> ssh anker.unibe.ch
user@bender.unibe.ch's password:
> uname
Linux
> uname -mon
bender x86_64 GNU/Linux
> uname --help
Usage: uname [OPTION]...
Print certain system information. With no OPTION, same as -s.

-a, --all print all information, in the following order,
        except omit -p and -i if unknown:
-s, --kernel-name print the kernel name
-n, --nodename print the network node hostname
-r, --kernel-release print the kernel release
-v, --kernel-version print the kernel version
-m, --machine print the machine hardware name
-p, --processor print the processor type or "unknown"
-i, --hardware-platform print the hardware platform or "unknown"
-o, --operating-system print the operating system
    --help display this help and exit
    --version output version information and exit
```

## 1.2 Commands

```
rm cami@bender:~/test$ ls
todelete.txt
cami@bender:~/test$ rm todelete.txt
cami@bender:~/test$ ls
```

`touch` updates the access and modification times of each FILE to the current time.

```
cami@bender:~/test$ ls -l
-rw-r--r-- 1 cami cami 0 2009-08-25 20:29 date.txt
cami@bender:~/test$ touch date.txt
cami@bender:~/test$ ls -l
-rw-r--r-- 1 cami cami 0 2009-08-25 20:30 date.txt
```

It can be very useful to create a new empty file on the fly:

```
~/test$ ls
~/test$ touch emptyfile.txt
~/test$ ls
emptyfile.txt
```

`man` shows the manual pages of the given command.

```
$ man <comman>
$ man man
```

`ls` shows the content of the current working directory.

```
$ ls
documentation.aux
documentation.log
documentation.out
documentation.pdf
documentation.tex
documentation.tex~
Makefile
test.tex
$ ls -R
.:
documentation.aux
documentation.log
documentation.out
documentation.pdf
documentation.tex
documentation.tex~
folder
Makefile
test.tex

./folder:
test.txt
```

`mv` moves and renames files and directories

```
$ mv a b
```

This command does the folloing:

**If there is a directory named b:** a will be moved into b

**If there is a file named b and a isn't a directory:** b will be overwritten by a

**If there isn't anything named b:** a is now named b

`find` finds files matching a pattern

```
$ find . -name "*bla*" -print
```

This prints every file in the current working directory with the word "bla" in its name.

## 2 Documentation with Latex

### 2.1 Introduction

In this section we explain some  $\text{\LaTeX}$  details and different formatting commands.

Whenever you need to lookup a certain symbol for  $\text{\LaTeX}$  we suggest you to use the online recognition tool `detexify` at <http://detexify.kirelabs.org/>.

### 2.2 Common Commands

#### 2.2.1 Sectioning

Depening on the documentclass given in the very beginning of this file there exist several sectioning levels:

1. `\section{NAME}`
2. `\subsection{NAME}`
3. `\subsubsection{NAME}`
4. `\paragraph{NAME}`

To enforce  $\text{\LaTeX}$ to use a newline add a double slash `\\` at the end of a line.

### 2.2.2 Schriftgrösse / -style

<code>\rm</code>	A normaler text
<code>\sl</code>	<i>An italic text</i>
<code>\bf</code>	<b>A bold text</b>
<code>\tiny</code>	A tiny ext
<code>\scriptsize</code>	A very, very small text
<code>\footnotesize</code>	A very small text
<code>\small</code>	A small text
<code>\large</code>	A big text
<code>\Large</code>	A bigger text
<code>\LARGE</code>	An even bigger text
<code>\huge</code>	A huge text
<code>\Huge</code>	A enormous huge text
<code>\emph</code>	<i>An emphasized text</i>
<code>\underline</code>	<u>An underlined text</u> and here using the ulem-package
<code>\texttt</code>	function goto(int a) ...
<code>\uuline</code>	<u>A double unterstrichener text using the ulem-package</u>
<code>\uwave</code>	<u>A wavy unterstrichener text using the ulem-package</u>
<code>\sout</code>	<del>A crossed trough text using the ulem-package</del>
<code>\xout</code>	<del>A deleted text using the ulem-package</del>

### 2.2.3 Notes

To create a footnote use the `\footnote{YOUR NOTE}` command<sup>1</sup>.

If you want to put a remark at side of a page use `\marginpar`.

This is a note at  
the border of the  
page.

### 2.2.4 Lists

There exist several list types in L<sup>A</sup>T<sub>E</sub>X. You start a list by adding a `\begin{LISTTYPE}` and end it with an `\end{LISTTYPE}`. A list item is added with a `\item` between the `begin` and `end`. LISTTYPE can be one of the following list:

- `enumerate`
- `itemize`
- `description` with `\item[topic]`

Note that you can nest lists if you want to.

1. e4
  - a) e4 e5
  - b) Lc4 d6
2. Lc4 d6

---

<sup>1</sup>...as you can see here.

### 3 Ruby Programming