

Linux Einführung

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1. Unix Stuff

2. Dateien Analysieren

3. Networking

1. Unix Stuff

```
[me@w1n5t0n:/tmp]$ id  
uid=1000(me) gid=100(users) groups=100(users),1(wheel),6(disk),17(audio),19(uucp),26(video),31(davfs2),57(networkmanager),131(docker),999(adbusers)
```

```
me@morpheus:~$ w
 18:28:10 up 146 days, 5:16,  2 users,  load average: 0.74, 0.67, 0.75
USER      TTY      FROM          LOGIN@      IDLE        JCPU       PCPU       WHAT
me        pts/0    178.27.192.139 18:28       1.00s      4:34       0.00s      w
me        pts/1    178.27.192.139 18:28       1.00s      0.01s      0.01s      -bash
```

```

MAN(1)                                Manual pager utils                                MAN(1)

NAME
  man - an interface to the system reference manuals

SYNOPSIS
  man [man options] [[section] page ...] ...
  man -k [apropos options] regexp ...
  man -K [man options] [section] term ...
  man -f [whatis options] page ...
  man -l [man options] file ...
  man -w|-W [man options] page ...

DESCRIPTION
  man is the system's manual pager. Each page argument given to man is normally
  the name of a program, utility or function. The manual page associated with
  each of these arguments is then found and displayed. A section, if provided,
  will direct man to look only in that section of the manual. The default action
  is to search in all of the available sections following a pre-defined order (see
  DEFAULTS), and to show only the first page found, even if page exists in several
  sections.
  
```

2. Dateien Analysieren

cat Für Textdateien
xxd Für Binärdateien

```
[me@win5t0n tmp]$ cat testdatei  
hello, world!
```

```
[nix-shell:/tmp]$ xxd -g 1 testdatei  
00000000: 68 65 6c 6c 6f 2c 20 77 6f 72 6c 64 21 0a      hello, world!.
```

- ▶ `grep regex datainame`
- ▶ `grep --ignore-case regex datainame`
- ▶ `grep -F kein-regex datainame`

```
[me@w1n5t0n:/tmp]$ cat testfile  
a.  
b  
c  
abc  
ac  
A  
  
[me@w1n5t0n:/tmp]$ grep a testfile  
a.  
abc  
ac
```

```
[me@w1n5t0n:/tmp]$ grep a. testfile  
a.  
abc  
ac  
  
[me@w1n5t0n:/tmp]$ grep --ignore-case a testfile  
a.  
abc  
ac  
A  
  
[me@w1n5t0n:/tmp]$ grep -F a. testfile  
a.
```

- ▶ Ausgabe in Datei umleiten: `>`
- ▶ Verketteten durch pipes: `|`
- ▶ Ausgabe von `cmdA` als temporäre Datei für `cmdB`:
`cmdB <(cmdA)`

```
[me@w1n5t0n:/tmp]$ grep -F a. testfile > results
[me@w1n5t0n:/tmp]$ cat results
a.
[me@w1n5t0n:/tmp]$ curl https://example.com/index.html | grep doctype
  % Total    % Received % Xferd  Average Speed   Time    Time     Time  Current
           % Done   0         0             0          0     0.0 0.0 0.0 2223
100 1256 100 1256    0     0  2219      0  --:--:--  --:--:--  --:--:--  2223
<!doctype html>
```

```
[me@w1n5t0n:/tmp]$ grep -F a. <(cat testfile)  
a.
```

Strings in Binärdateien finden - *strings*

```
[me@win5t0n:/tmp]$ strings -n 10 /bin/sh
/nix/store/v6szn6fczjbn54h7y40aj7qjijq7j6dc-glibc-2.34-210/lib/ld-linux-x86-64.so.2
__gmon_start__
rl_filename_stat_hook
history_write_timestamps
rl_get_termcap
write_history
rl_vi_editing_mode
rl_completion_quote_character
rl_vi_start_inserting
history_set_pos
rl_redraw_prompt_last_line
rl_terminal_name
rl_startup_hook
sh_unset_nodelay_mode
rl_function_of_keyseq_len
rl_readline_name
```

3. Networking

```
[me@w1n5t0n:/tmp]$ wget https://example.com/index.html
--2022-10-03 18:11:43-- https://example.com/index.html
Resolving example.com (example.com)... 93.184.216.34, 2606:2800:220:1:248:1893:25c8:1946
Connecting to example.com (example.com)|93.184.216.34|:443... connected.
HTTP request sent, awaiting response... 200 OK
Length: 1256 (1.2K) [text/html]
Saving to: 'index.html'

index.html          100%[=====]  1.23K  --.-KB/s   in 0s

2022-10-03 18:11:44 (39.9 MB/s) - 'index.html' saved [1256/1256]
```

```
[me@w1n5t0n:/tmp]$ curl https://example.com/index.html
<!doctype html>
<html>
<head>
  <title>Example Domain</title>

  <meta charset="utf-8" />
  <meta http-equiv="Content-type" content="text/html; charset=utf-8" />
  <meta name="viewport" content="width=device-width, initial-scale=1" />
  <style type="text/css">
```

```
[me@win5t0n:/tmp]$ nmap example.com
Starting Nmap 7.92 ( https://nmap.org ) at 2022-10-03 18:21 CEST
Nmap scan report for example.com (93.184.216.34)
Host is up (0.20s latency).
Other addresses for example.com (not scanned): 2606:2800:220:1:248:1893:25c8:1946
Not shown: 996 filtered tcp ports (no-response)
PORT      STATE SERVICE
80/tcp    open  http
443/tcp   open  https
1119/tcp  closed bnetgame
1935/tcp  closed rtmp

Nmap done: 1 IP address (1 host up) scanned in 16.55 seconds
```

```
[me@w1n5t0n:/tmp]$ dig +nocomments example.com

; <<>> DiG 9.18.7 <<>> +nocomments example.com
;; global options: +cmd
;example.com.                IN      A
example.com.                 85858  IN      A      93.184.216.34
;; Query time: 0 msec
;; SERVER: 127.0.0.1#53(127.0.0.1) (UDP)
;; WHEN: Mon Oct 03 18:19:32 CEST 2022
;; MSG SIZE  rcvd: 56

[me@w1n5t0n:/tmp]$ dig AAAA +nocomments example.com

; <<>> DiG 9.18.7 <<>> AAAA +nocomments example.com
;; global options: +cmd
;example.com.                IN      AAAA
example.com.                 85854  IN      AAAA   2606:2800:220:1:248:1893:25c8:1946
;; Query time: 1 msec
;; SERVER: 127.0.0.1#53(127.0.0.1) (UDP)
;; WHEN: Mon Oct 03 18:19:36 CEST 2022
;; MSG SIZE  rcvd: 68
```

