Das Filesystem

sysfs

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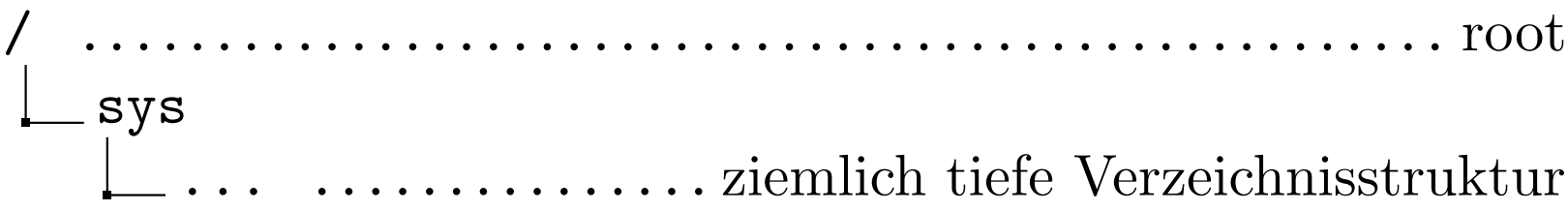
17. April 2018

Um was geht es ?

/sys: die Verbindung *user-space* ↔ *kernel-space*



- *kernel-space*
  - erzeut Verzeichnisse und Files
  - notifiziert: call-back
- *user-space*
  - reagiert
  - liest/schreibt auf Files

Info

- `Documentation/filesystems/sysfs.txt`
- `lxr.free-electrons.com`

Beispiele

- `/sys/class/hwmon`
- `/sys/class/leds`
- `/sys/class/backlight`
- `/sys/class/rtc`

Remark: Vorsicht

Unsere Module

- `sysfs-0.c` erzeugt Directory in `/sys`
- `sysfs-1.c` erzeugt File
- `sysfs-2.c` read/write
  - call-backs

sysfs-0.c

erzeugt Directory in /sys

- kobject_create_and_add
- kobject_put

- `sysfs_create_file`
- `attribute`

Initialisierung von `structs`

```
static struct attribute attr=
{
 name: ...., /* some reasonable value */
 mode: ....  /* some reasonable value */
};
```

Read/Write

- `cat cat /sys/my-kobj/file`
- `echo abc > /sys/my-kobj/file`

read/write

- kobj_attribute
- call-back

```
struct kobj_attribute {
        struct attribute attr;
        ssize_t (*show)(struct kobject *kobj,
                        struct kobj_attribute *attr,
                        char *buf);
        ssize_t (*store)(struct kobject *kobj,
                         struct kobj_attribute *attr,
                         const char *buf, size_t count);
};
```