# Programmierung

in diesem Abschnitt habe ich ein paar von mir häufig verwendete Code-Schnipsel hinterlegt. vielleicht ist der eine oder andere hilfreich ;)

GIT SVN

bash

javascript

mysql

Python

PHP

VSCode

## Batch

## C/C++

### Makefile

```
$(warning $$src is [${src}])
```

string-manipulation:

https://ftp.gnu.org/old-gnu/Manuals/make-3.79.1/html_chapter/make_8.html#SEC77

### Linux

#### Fixes (für backports)

```
Cc: stable@vger.kernel.org
```

in den Signed-Off-Bereich

Quelle: https://www.kernel.org/doc/html/latest/process/stable-kernel-rules.html

#### debugging

#### Using dynamic debug

Add options:

```
CONFIG_DYNAMIC_DEBUG=y
CONFIG_DEBUG_FS=y
```

And enable it from userspace (here all for network drivers):

```
echo "file drivers/net/* +p"> /sys/kernel/debug/dynamic_debug/control
```

#### Manual by adding new messages

```
printk(KERN_ALERT "DEBUG: Passed %s %d
val:0x%0x\n",__FUNCTION__,__LINE__,(unsigned int)val);
```

```
dev_err(dev,"DEBUG: Passed %s %d val:0x%x\n",__FUNCTION__,__LINE__,val);
```

### cmdline

```
//register params
static int startreg=-1;
module_param( startreg, int, S_IRUGO );
static int regcount=10;
module_param( regcount, int, S_IRUGO );

//look for module-name
static struct mdio_driver realtek_mdio_driver = {
    .mdiodrv.driver = {
        .name = "realtek-mdio",//<<<<

//pass cmdline arguments
realtek-mdio.startreg=0x1300 realtek-mdio.regcount=50
```

- http://embeddedguruji.blogspot.com/2018/12/passing-parameters-to-linux-device.html
- https://ezs.kr.hsnr.de/TreiberBuch/html/sec.treiberparam.html

### Links

- elixir@bootlin
- Patchwork
  - Mediatek
  - Rockchip
  - dt-bindings
- GIT:
  - stable torvalds linux-next

- net net-next
- drm mtk nextdrm
- neues mediatek repo (altes mtk dts next)
- Rockchip SoC/DTS
- dt-bindings
- pinctrl-next

## U-Boot

### debugging

```
#define DEBUG 1
```

vor „#include <common.h>“ um vorhandene/zusätzliche debug() anzuzeigen

```
debug("## %s:%d...\n", __FILE__,__LINE__);
```

oder manuell (wird immer angezeigt):

```
printf("%s:%d val:0x%0x\n",__FUNCTION__,__LINE__,(u32)val);
```

### Links

- elixir@bootlin
- Uboot-Patchwork Mailinglist Archiv
- uboot gitlab

## DTC

http://thesoulofamachine.blogspot.com/2016/07/linux-dts-compilation-using-dtc-compiler.html

DTB dekompilieren:

```
sudo apt-get install device-tree-compiler
```

```
dtc -I dtb -O dts sun8i-h3-orangepi-pc.dtb -o /tmp/tmp.dts
less /tmp/tmp.dts

#Alternative ohne temporäre Datei
dtc -I dtb -O dts ../build/arch/arm64/boot/dts/rockchip/rk3568-bpi-r2-
pro.dtb | less

#aus sysfs
dtc -I fs -O dts /sys/firmware/devicetree/base | less
```

#### dtbs_check

```
sudo apt install swig yamllint
```

```
pip3 install dtschema --upgrade
pip3 show dtschema
```

```
ARCH=arm64 CROSS_COMPILE=aarch64-linux-gnu- make dt_binding_check
DT_SCHEMA_FILES=Documentation/devicetree/bindings/ata/ahci-platform.yaml
ARCH=arm64 CROSS_COMPILE=aarch64-linux-gnu- make defconfig #dtbs_check need
kernel-config
ARCH=arm64 CROSS_COMPILE=aarch64-linux-gnu- make dtbs_check
DT_SCHEMA_FILES=Documentation/devicetree/bindings/ata/ahci-platform.yaml
ARCH=arm CROSS_COMPILE=arm-linux-gnueabihf- make multi_v7_defconfig
ARCH=arm CROSS_COMPILE=arm-linux-gnueabihf- make dtbs_check
DT_SCHEMA_FILES=Documentation/devicetree/bindings/ata/ahci-platform.yaml

#maybe need to add dir to path
PATH=$PATH:~/.local/bin
```

#### DTS

Mapping wifi Eeprom data to pcie slot:

https://forum.banana-pi.org/t/802-11ac-module-gives-max-6dbi-transmitter-power/14238/23

## CSS

## HTML

From:
https://wiki.fw-web.de/ - **FW-WEB Wiki**

Permanent link:
**https://wiki.fw-web.de/doku.php?id=programming:start**

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