I2C Port Expander am USB Port

Quellen

1. http://www.ftdichip.com/Drivers/D2XX.htm
2. http://www.ftdichip.com/Support/SoftwareExamples/MPSSE/LibMPSSE-I2C.htm
3. http://www.ftdichip.com/Support/Documents/ProgramGuides/D2XX_Programmer%27s_Guide%28FT_000071%29.pdf
4. http://www.ftdichip.com/Support/Documents/AppNotes/AN_177_User_Guide_For_LibMPSSE-I2C.pdf
5. http://tenthousandfailures.com/blog/2014/2/16/ftdi-ft2232-mpsse-basics

Entwicklungssystem

- DELL Optiplex 745, 64-bit
- Ubuntu 12.04.5 LTS
- FTDI Modul: FT4232H Mini Module, siehe hier und hier
- NXP PCA9506 40-bit I2C-bus Port Expander

Build-Umgebung

```
apt-get update
apt-get upgrade
apt-get install mc kdiff3 git dos2unix
```

D2XX Treiber von FTDI

Installation laut Readme.txt (siehe [1])

```
wget http://www.ftdichip.com/Drivers/D2XX/Linux/libftd2xx1.1.12.tar.gz
tar xfz libftd2xx1.1.12.tar.gz
sudo su
cd release/build/x86_64/
cd release/build/x86_64/
chmod 0755 /usr/local/lib/libftd2xx.so.1.1.12
ln -sf /usr/local/lib/libftd2xx.so.1.1.12 /usr/local/lib/libftd2xx.so
exit
cd examples
make -B
```

FTDI Mini Modul per USB anschließen und evtl. geladene Treibermodule anschließend wieder entfernen.

```
rmmod ftdi_sio
rmmod usbserial
```

```
wget
http://www.ftdichip.com/Support/SoftwareExamples/MPSSE/LibMPSSE-I2C/libMPSSE
-I2C.zip
unzip libMPSSE-I2C.zip
cd Release-I2C/samples/
chmod +x b.bash
!! -ldl argument at end of gcc line!!
```

```
mkdir FTDI_FT2232_MPSSE_Basics
cd FTDI_FT2232_MPSSE_Basics
make clean
make all
```

```
wget
http://www.ftdichip.com/Support/SoftwareExamples/MPSSE/LibMPSSE-I2C/LibMPSSE
-I2C_source.zip
unzip LibMPSSE-I2C_source.zip
cd LibMPSSE-I2C
```

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