

## - Setup and Check of Host and Target -

### Goal:

During this initial exercise you will step by step setup a working host and target environment for the laboratory.

### Exercise 1.1: Develop a Test-Program on the Host

Check your toolchain by writing and compiling a little **hello\_world** program.

Check it with the **file** command.

### Exercises 1.2: Transfer to the Target

Now copy the resulting executable (a.out) to the target. You may use a directory shared via NFS or the **scp** utility, which is part of the ssh package.

**Note:** to setup the SDCard for the target, first expand the Jessie archive provided. Then copy it to the SDCard device(!), i.e. having partitions (if any) unmounted before. For this, you check the Device-ID of the SDCard using **dmesg** and then **sudo unmount**. Do not get confused by the Ubuntu automounter. For copying you might want to use **dd** and check the progress by sending a USR1-signal to its PID. Then you edit the files /etc/hosts and /etc/hostname on the root-partition of the SDCard to provide a unique name for your target. Then you insert the SDCard into your target, connect to network and power it up. Using **putty** you should be able to communicate with the target (Attn: host and target have to be in the same network). On the target, install the packages **openssh-server** and **nfs-kernel-server**.

### Exercise 1.3: Execution on the target

After copying to the target now you start the program locally, i.e. on a console of the target. Then you may also start the program via a remote-login from the host, e.g. ssh.