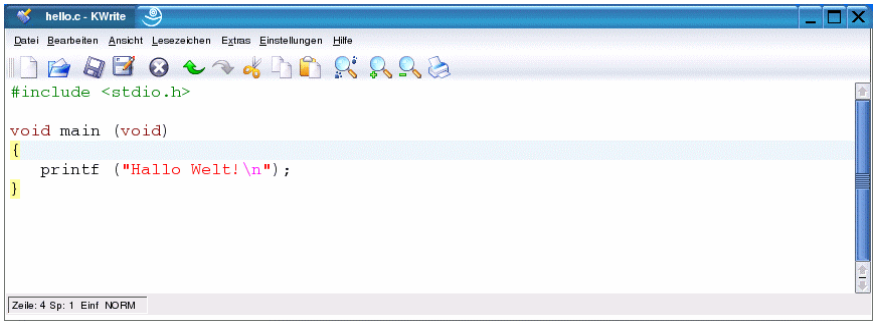
How to check your C Development Environment

The ADNP/1520 is powered by a 32-bit x86 microcontroller. The IA-32 microcontroller architecture and the ADNP/1520 default Linux operating system allows you to use the native GCC tool chain of a Linux-based PC for C/C++ software development.

- **1. Step**: Setup a Ethernet link between the ADNP/1520 and a PC system. Use a valid IP address for your PC.

- **2. Step**: Booting up the ADNP/1520 and use a Telnet console session. Login with administrator rights (user name: **root**, no password necessary). Change to the directory **/home/gast** within the ADNP/1520 Linux file system.

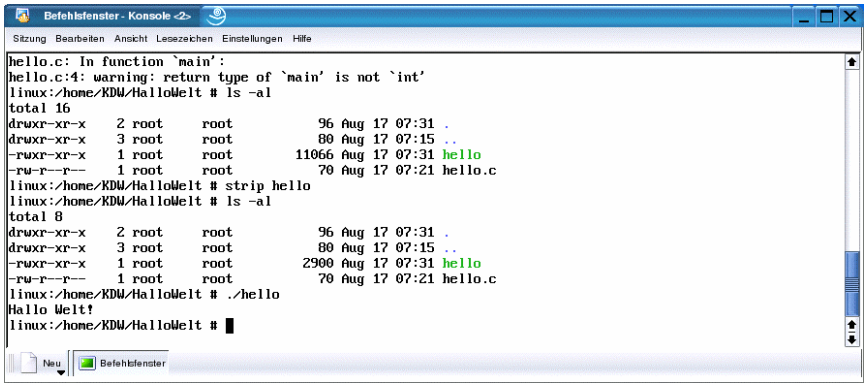
- **3. Step**: Use a text editor program (i.e. *KWrite*) on your Linux-based PC and write a simple "Hello World" program in C. Save your source code as **hello.c**.



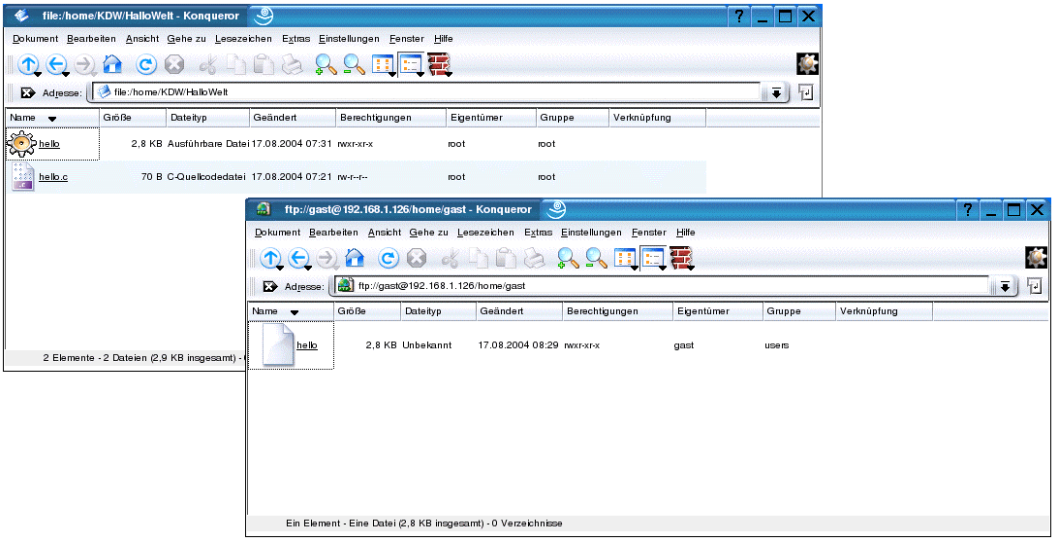
- **4. Step**: Use the GCC of your PC Linux to build an executable file of your "Hello World". Run the new executable on your PC. Use the following commands:

```
gcc -o hello hello.c
strip hello
./hello
```

This command lines assumes, that **hello.c** is the file name of your "Hello World" C source file. The executable name is **hello**. The optional `strip` command produces a very small binary.



- **5. Step**: Transfer the executable with the help of a FTP session from the PC to the ADNP/1520. If you use a Linux distribution (i.e. a *SuSE* PC Linux) with *KDE* on your PC, it is possible to use the file manager *Konqueror* for this task.

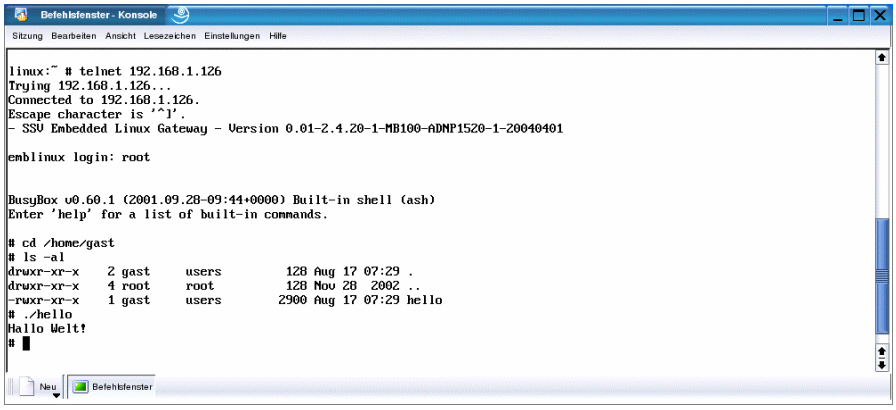


With KDE, just start *Konqueror* two times. Set one *Konqueror* address to the PC directory with the executable **hello**.

For the second *Konqueror* please use the address **ftp://gast@192.168.1.126/home/gast**. With this address, *Konqueror* is working as a FTP client for the ADNP/1520 FTP server. Then move the executable with the help of your mouse from one *Konqueror* window to the other window. This mouse action issues a FTP file transfer.

Please note: The "**192.168.1.126**" within **ftp://gast@192.168.1.126/home/gast** is the IP address of the ADNP/1520. Use another IP address if necessary. The ADNP/1520 FTP user name **gast** require no password.

- **6. Step**: For run the executable file **hello** on the ADNP/1520, use your Telnet session and start **hello** from the ADNP/1520 directory **/home/gast**.



That's all.