

How to use the Linux PC native GCC Tool Chain for eSOM/2586 C Programming

The embedded system-on-module eSOM/2586 comes with an x86/IA-32 CPU core and a Linux operation system with kernel version 2.6. C/C++ programming for the eSOM/2586 doesn't need a cross GCC. You can use the native GCC of a Linux environment with kernel version 2.6.

- **1. Step:** Run a Telnet session on Linux-based development PC. Then execute the following command line sequence:

```
cat > hello.c
#include <stdio.h>

void main (void)
{
    printf ("Hallo Welt!\n");
}
CTRL-D (Stoppes the cat command)
gcc -o hello hello.c
mv hello /tftpboot/hello
```

The command line sequence creates the executable *hello* for the x86/IA-32-based eSOM/2586 with a Linux 2.6 kernel.



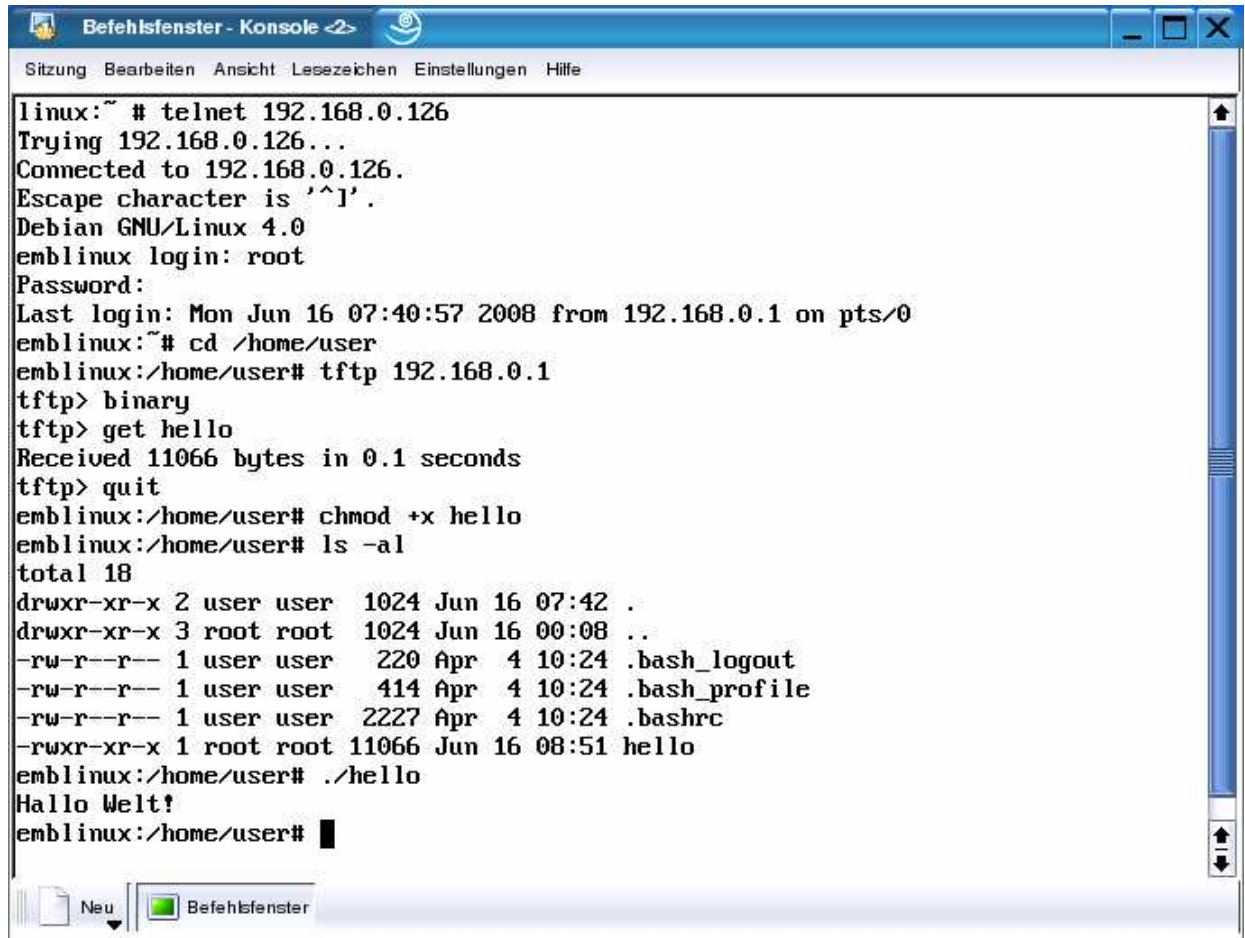
The screenshot shows a terminal window titled "Befehlsfenster - Konsole <3>". The terminal output is as follows:

```
linux:/home # cat hello.c
#include <stdio.h>

int main (void)
{
    printf ("Hallo Welt!\n");
    return 0;
}
linux:/home # gcc -o hello hello.c
linux:/home # mv hello /tftpboot/hello
linux:/home # █
```

- **2. Step:** Transfer the executable with the help of FTP or TFTP to the embedded system-on-module eSOM/2586 and run the executable. Don't forget the

```
chmod +x hello
```



```
linux:~ # telnet 192.168.0.126
Trying 192.168.0.126...
Connected to 192.168.0.126.
Escape character is '^]'.
Debian GNU/Linux 4.0
emlinux login: root
Password:
Last login: Mon Jun 16 07:40:57 2008 from 192.168.0.1 on pts/0
emlinux:~# cd /home/user
emlinux:/home/user# tftp 192.168.0.1
tftp> binary
tftp> get hello
Received 11066 bytes in 0.1 seconds
tftp> quit
emlinux:/home/user# chmod +x hello
emlinux:/home/user# ls -al
total 18
drwxr-xr-x 2 user user 1024 Jun 16 07:42 .
drwxr-xr-x 3 root root 1024 Jun 16 00:08 ..
-rw-r--r-- 1 user user 220 Apr 4 10:24 .bash_logout
-rw-r--r-- 1 user user 414 Apr 4 10:24 .bash_profile
-rw-r--r-- 1 user user 2227 Apr 4 10:24 .bashrc
-rwxr-xr-x 1 root root 11066 Jun 16 08:51 hello
emlinux:/home/user# ./hello
Hallo Welt!
emlinux:/home/user#
```

That is all.