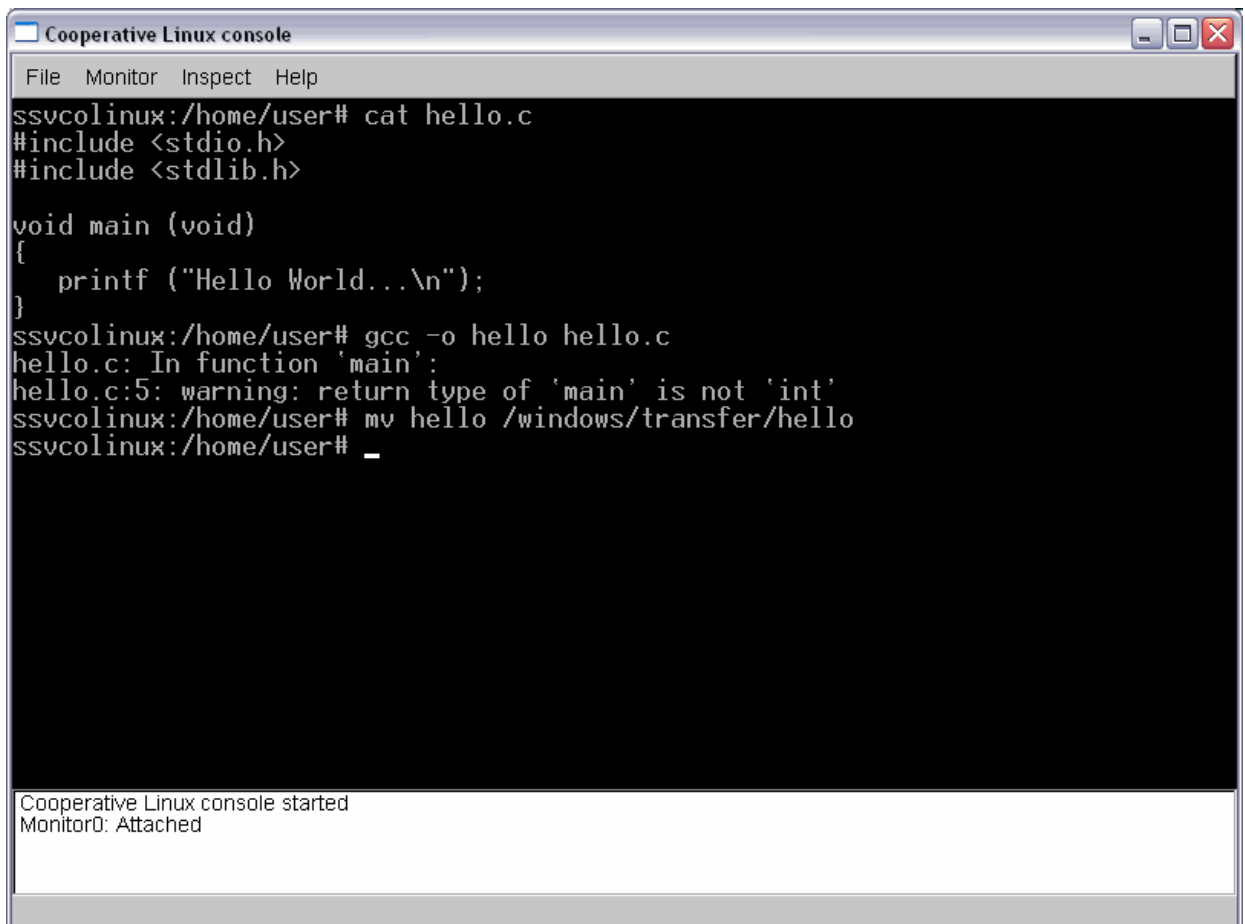


## How to use the coLinux Tool Chain for eSOM/2586 C Programming

The SSV coLinux tool chain allows you to write C/C++ programs for the embedded system-on-module eSOM/2586 within your Windows XP environment. It is not necessary to setup a Linux-based PC for the eSOM/2586 C/C++ programming.

Before following the next steps make sure, that the SSV coLinux tool chain is installed on your Windows XP-based PC. It is also required to have a transfer directory for moving files between the Windows XP and coLinux. The directory can be `c:\colinux\transfer`. From coLinux you can access the directory with the path name `/windows/transfer`.

- **1. Step:** Run coLinux within your Windows XP environment. Use the user name *root* and the password *root* for your coLinux login. Then move to the coLinux directory `/home/user` within the coLinux user console.



```
Cooperative Linux console
File Monitor Inspect Help
ssvcolinux:/home/user# cat hello.c
#include <stdio.h>
#include <stdlib.h>

void main (void)
{
    printf ("Hello World...\n");
}
ssvcolinux:/home/user# gcc -o hello hello.c
hello.c: In function 'main':
hello.c:5: warning: return type of 'main' is not 'int'
ssvcolinux:/home/user# mv hello /windows/transfer/hello
ssvcolinux:/home/user# _

Cooperative Linux console started
Monitor0: Attached
```

- **2. Step:** Then execute the following command line sequence within your coLinux environment:

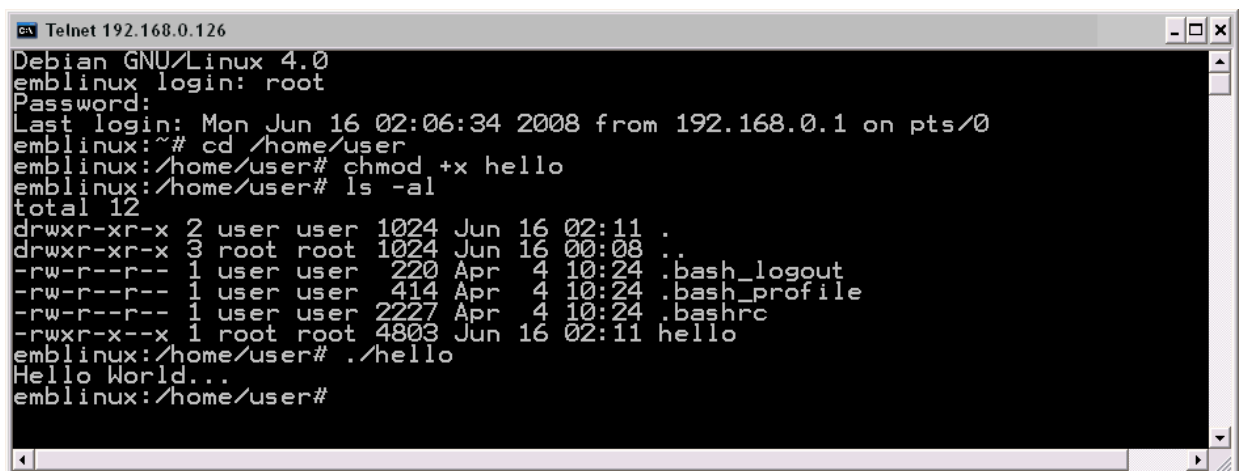
```
cat > hello.c
#include <stdio.h>
void main (void)
{
    printf ("Hello World.\n");
}
```

```
CTRL-D (Stops the cat command)  
gcc -o hello hello.c  
mv hello /windows/transfer/hello
```

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

- **3. 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
```



```
Telnet 192.168.0.126  
Debian GNU/Linux 4.0  
emblinux login: root  
Password:  
Last login: Mon Jun 16 02:06:34 2008 from 192.168.0.1 on pts/0  
emblinux:~# cd /home/user  
emblinux:/home/user# chmod +x hello  
emblinux:/home/user# ls -al  
total 12  
drwxr-xr-x 2 user user 1024 Jun 16 02:11 .  
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-x--x 1 root root 4803 Jun 16 02:11 hello  
emblinux:/home/user# ./hello  
Hello World...  
emblinux:/home/user#
```

**Please note:** 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.

That is all.