

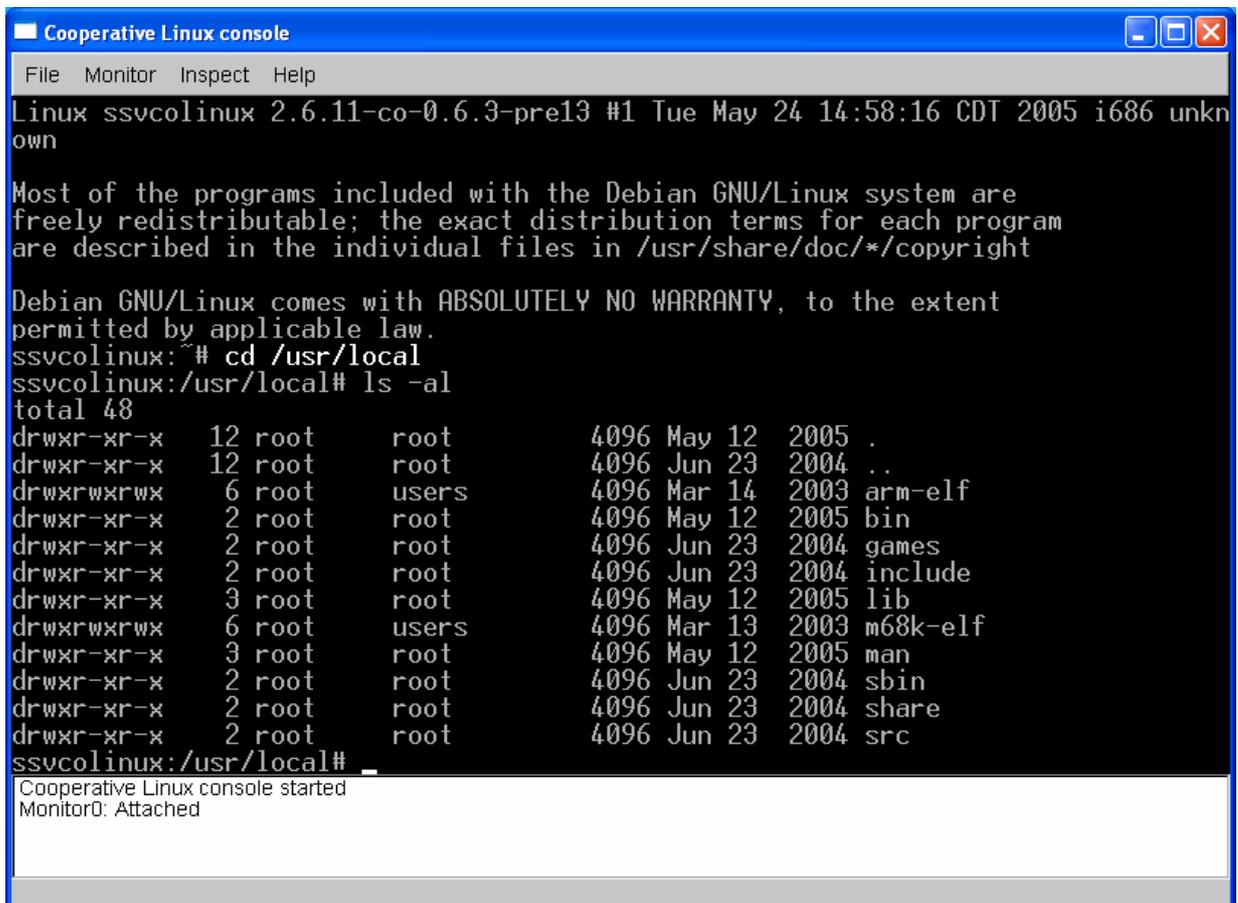
## How to use the coLinux Tool Chain for DNP/5370 C Programming

The SSV coLinux tool chain allows you to write C/C++ programs for the DIL/NetPC DNP/5370 within your Windows XP environment. It is not necessary to setup a Linux-based PC for the DIL/NetPC C/C++ programming.

The SSV coLinux tool chain default configuration doesn't contain the GNU cross compiler for the DIL/NetPC DNP/5370. It is necessary to install these GNU tools from the DNP/5370 Linux starter kit CD-ROM.

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\root`. From coLinux you can access the directory with the path name `/windows/root`.

- **1. Step:** Copy the archive file `blackfin-toolchain-06r2-5.i386.tar.gz` from the DNP/5370 Linux starter kit CD-ROM directory `/linux/toolchain` into the coLinux transfer directory (i.e. `c:\colinux\root`).
- **2. 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 `/usr/local` within the coLinux user console.



```

Cooperative Linux console
File Monitor Inspect Help
Linux ssvcolinux 2.6.11-co-0.6.3-pre13 #1 Tue May 24 14:58:16 CDT 2005 i686 unkn
own

Most of the programs included with the Debian GNU/Linux system are
freely redistributable; the exact distribution terms for each program
are described in the individual files in /usr/share/doc/*/copyright

Debian GNU/Linux comes with ABSOLUTELY NO WARRANTY, to the extent
permitted by applicable law.
ssvcolinux:~# cd /usr/local
ssvcolinux:/usr/local# ls -al
total 48
drwxr-xr-x  12 root    root    4096 May 12  2005 .
drwxr-xr-x  12 root    root    4096 Jun 23  2004 ..
drwxrwxrwx   6 root    users   4096 Mar 14  2003 arm-elf
drwxr-xr-x   2 root    root    4096 May 12  2005 bin
drwxr-xr-x   2 root    root    4096 Jun 23  2004 games
drwxr-xr-x   2 root    root    4096 Jun 23  2004 include
drwxr-xr-x   3 root    root    4096 May 12  2005 lib
drwxrwxrwx   6 root    users   4096 Mar 13  2003 m68k-elf
drwxr-xr-x   3 root    root    4096 May 12  2005 man
drwxr-xr-x   2 root    root    4096 Jun 23  2004 sbin
drwxr-xr-x   2 root    root    4096 Jun 23  2004 share
drwxr-xr-x   2 root    root    4096 Jun 23  2004 src
ssvcolinux:/usr/local#
Cooperative Linux console started
Monitor0: Attached

```

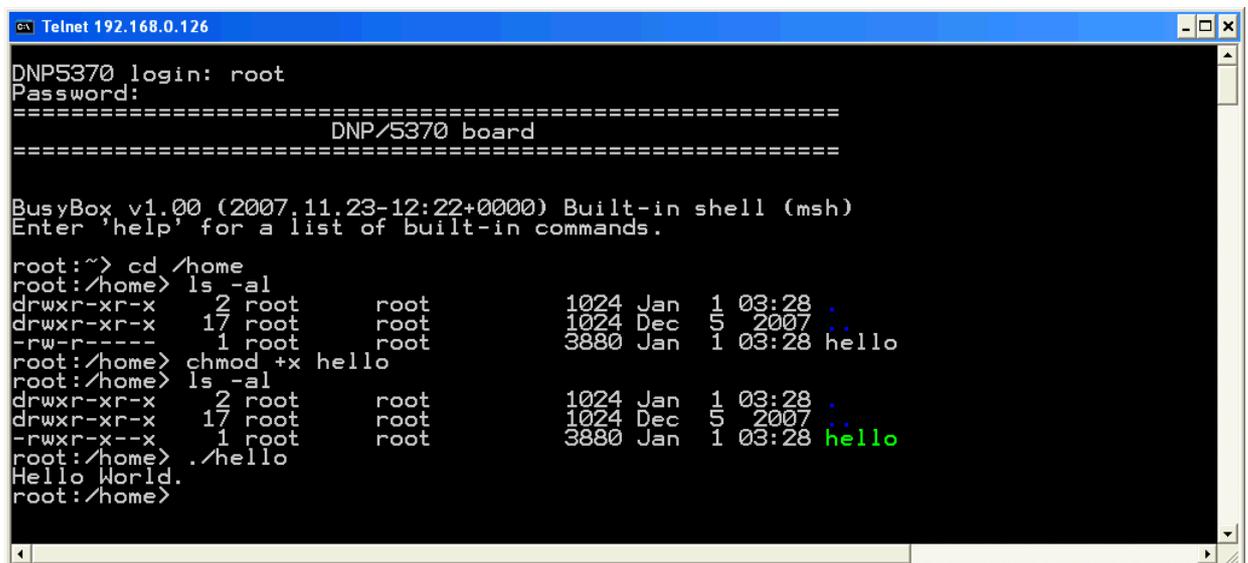
- **3. Step:** Then execute the following command line sequence within your coLinux environment:

```
cd /
tar -xzf /windows/root/blackfin-toolchain-06r2-5.i386.tar.gz
export PATH=$PATH:/opt/uClinux/bfin-uclinux/bin
cd /home/user
cat > hello.c
#include <stdio.h>
void main (void)
{
    printf ("Hello World.\n");
}
CTRL-D (Stops the cat command)
bfin-uclinux-gcc -Wl,-elf2flt -o hello hello.c
ls -al hello
```

The command line sequence creates the executable *hello* for the Blackfin-based DNP/5370.

- **4. Step:** Transfer the executable with the help of FTP or TFTP to the DIL/NetPC DNP/5370 and run the executable. Don't forget the

```
chmod +x hello
```



```
Telnet 192.168.0.126
DNP5370 login: root
Password:
=====
DNP/5370 board
=====
BusyBox v1.00 (2007.11.23-12:22+0000) Built-in shell (msh)
Enter 'help' for a list of built-in commands.

root:~> cd /home
root:/home> ls -al
drwxr-xr-x  2 root   root   1024 Jan  1 03:28 .
drwxr-xr-x 17 root   root   1024 Dec  5 2007 ..
-rw-r----- 1 root   root   3880 Jan  1 03:28 hello
root:/home> chmod +x hello
root:/home> ls -al
drwxr-xr-x  2 root   root   1024 Jan  1 03:28 .
drwxr-xr-x 17 root   root   1024 Dec  5 2007 ..
-rwxr-x--x  1 root   root   3880 Jan  1 03:28 hello
root:/home> ./hello
Hello World.
root:/home>
```

That is all.