

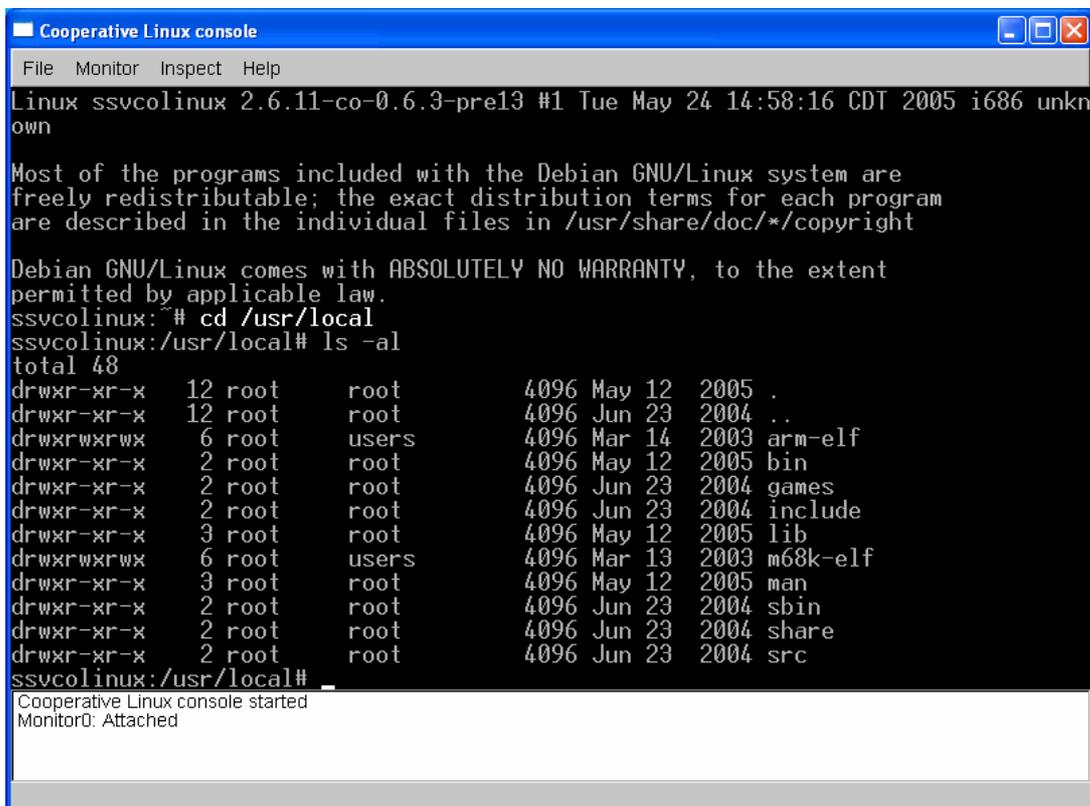
How to use the coLinux Tool Chain for DNP/9200 C Programming

The SSV coLinux tool chain allows you to write C/C++ programs for the DIL/NetPC DNP/9200 within your Windows XP environment. It is not necessary to setup a Linux-based PC for DIL/NetPC C/C++ programming.

The SSV coLinux tool chain default configuration doesn't contain the GNU cross compiler for the DIL/NetPC DNP/9200. It is necessary to install these GNU tools from the DNP/9200 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 `arm-toolchain-SSV20020812.tgz` from the DNP/9200 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:** Run the coLinux tar utility command and unpack the archive file `arm-toolchain-SSV20020812.tgz` within the directory `/usr/local`. The activity needs some time. So please wait until the tar command execution ends.

```

Cooperative Linux console
File Monitor Inspect Help
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# tar -xzf /windows/root/arm-toolchain-SSV20020812.tgz
ssvcolinux:/usr/local# ls -al
total 596
drwxr-xr-x 14 root root 4096 Feb 3 21:22 .
drwxr-xr-x 12 root root 4096 Jun 23 2004 ..
drwxr-xr-x 2 root root 4096 Aug 12 2002 arm
drwxrwxrwx 6 root users 4096 Mar 14 2003 arm-elf
drwxr-xr-x 8 root root 4096 Aug 12 2002 arm-linux
drwxr-xr-x 2 root root 4096 May 12 2005 bin
-rw-r--r-- 1 root root 548019 Aug 12 2002 checksum.md5
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

```

Please note: After the tar utility was successfully executed, it should be possible to run the GNU cross compiler for the DNP/9200 from each coLinux directory. Just enter

```
/usr/local/arm/2.95.2/bin/arm-linux-gcc -o name name.c
```

to build an executable from a given C source code file. Within this sample command line *name* is the file name of the executable for the DNP/9200 and *name.c* the C source code file name.

It is also possible to automate the usage of the GNU cross compiler with make files or Linux shell script files.

That is all.