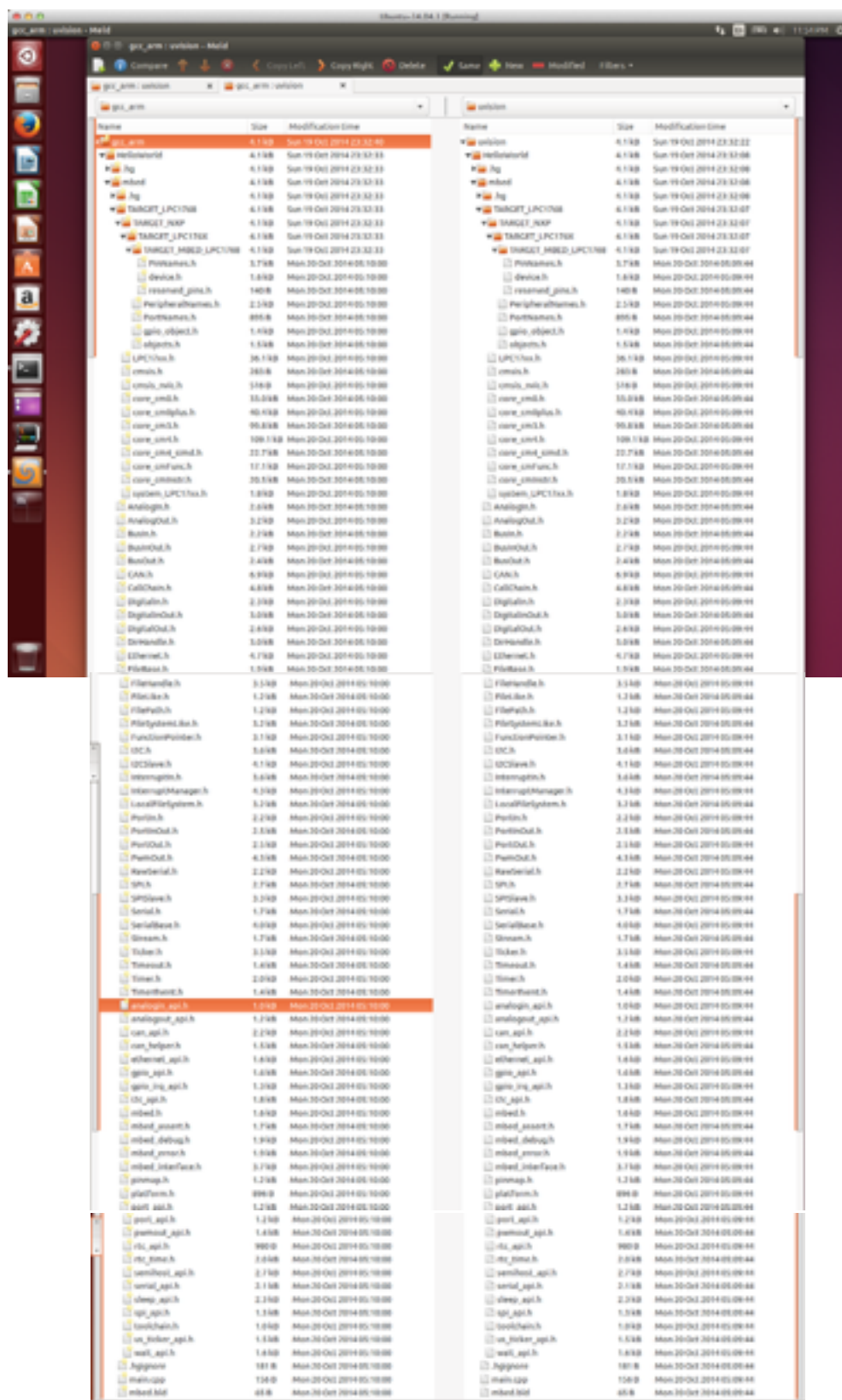
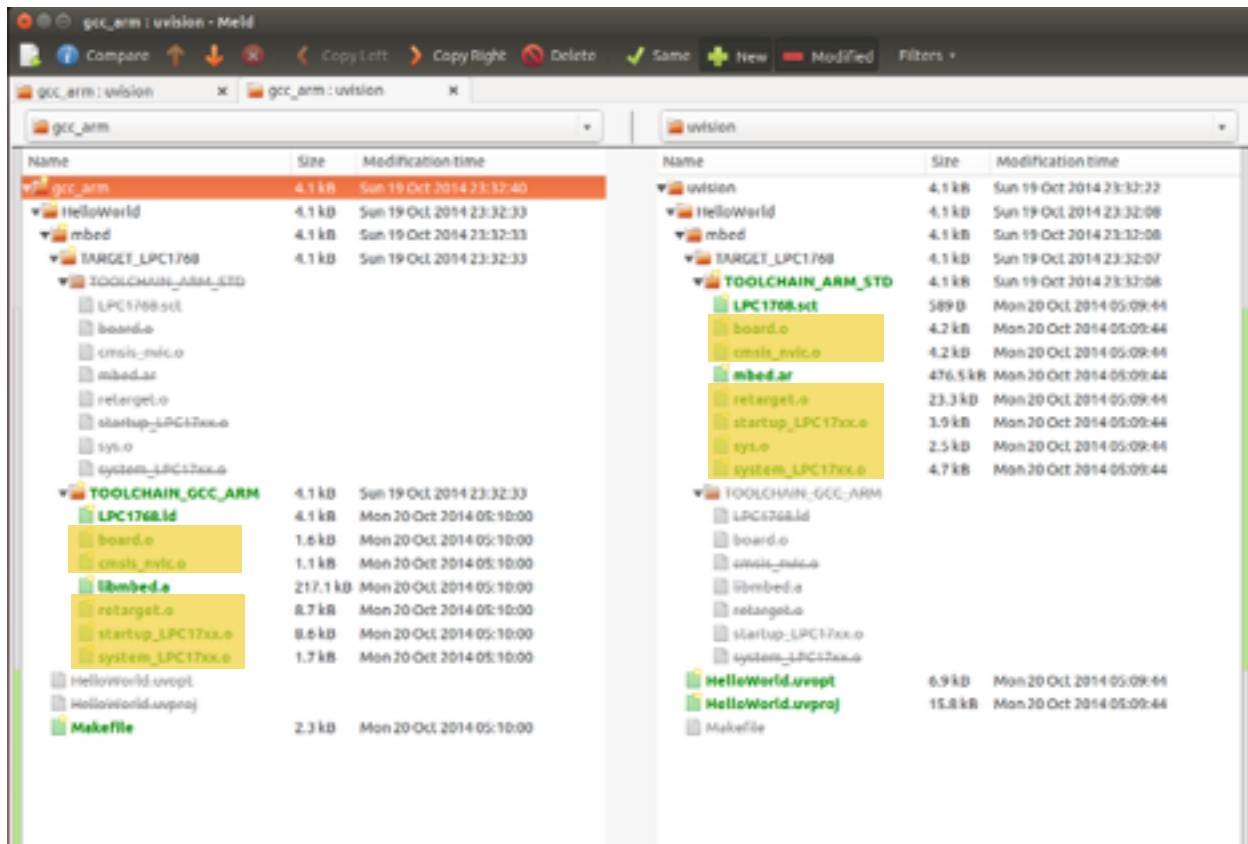


- Here is a comparison of both unison and gcc_arm exported versions of “Hello World” showing files that are **identical** using the open-source utility *meld*:



Here are files that are **different**, including the binaries which are shown highlighted:



Files that are different (from the above GUI window) are
3 gcc_arm text files: LPC1768.ld, libmbed.a, Makefile
4 uvision text files: LPC1768.sct, mbed.ar, HelloWorld.uvopt
and HelloWorld.uvproj.

5 commonly-named binary files:

- board.o
- cmsis_nvic.o
- retarget.o
- startup_LPC17xx.o
- system_LPC17xx.o

uvision also has 1 unique binary file:

- sys.o

Here is a script *CompareFiles.sh* used for counting the number of text files in the project directory that are the same or different between the gcc_arm and uvision target builds:

From the script *CompareFiles.sh* the following information was determined:

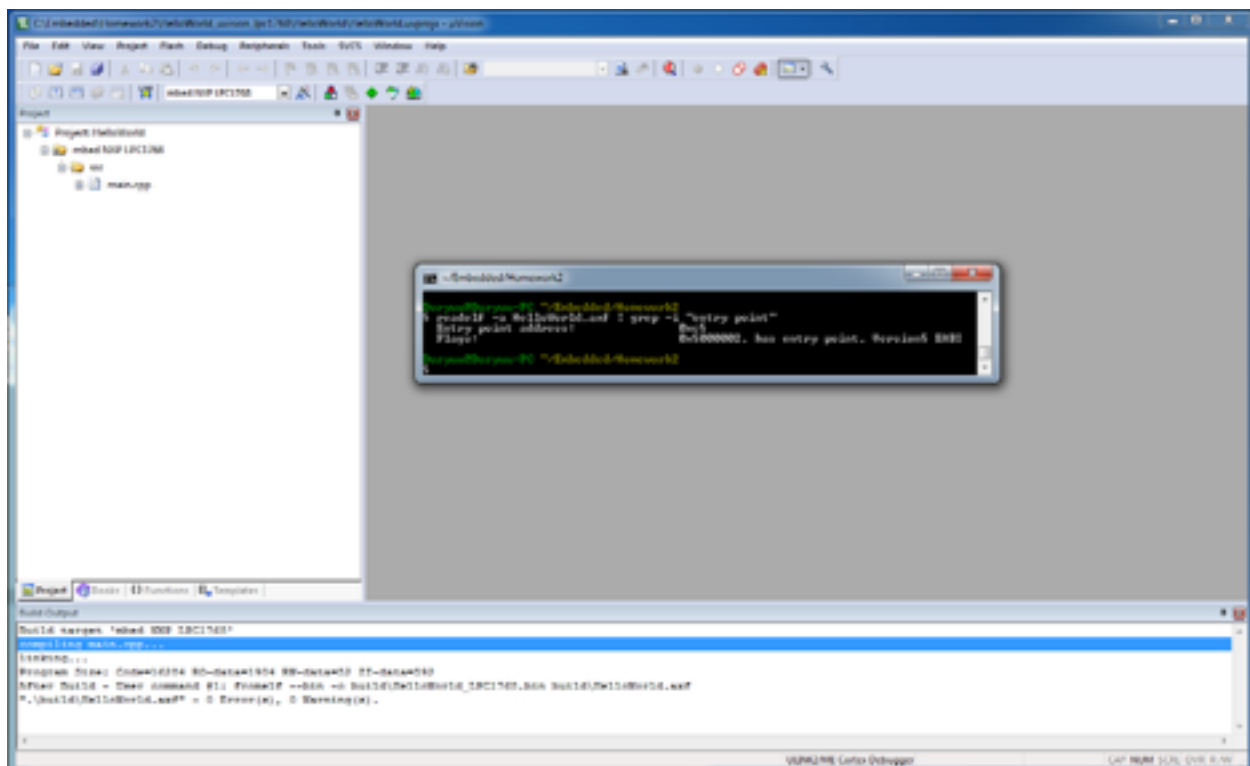
Total of 63 matching text files.
Total of 5549 lines in text files

After building the gcc_arm target (make -all), the following was observed as the entry point:

(from doing read elf -all

```
$readelf -a HelloWorld.elf | grep -i "entry point"
Entry point address:      0x5dd
Flags:                    0x5000002, has entry point, Version5 EABI
```

Similarly after building the unison target using Keil on Windows 7 machine, and executing the read elf -a HelloWorld.axf command in cygwin:



Note the entry address (0xc5) for μ vision is different from that (0x5dd) for the gcc_arm compiler.

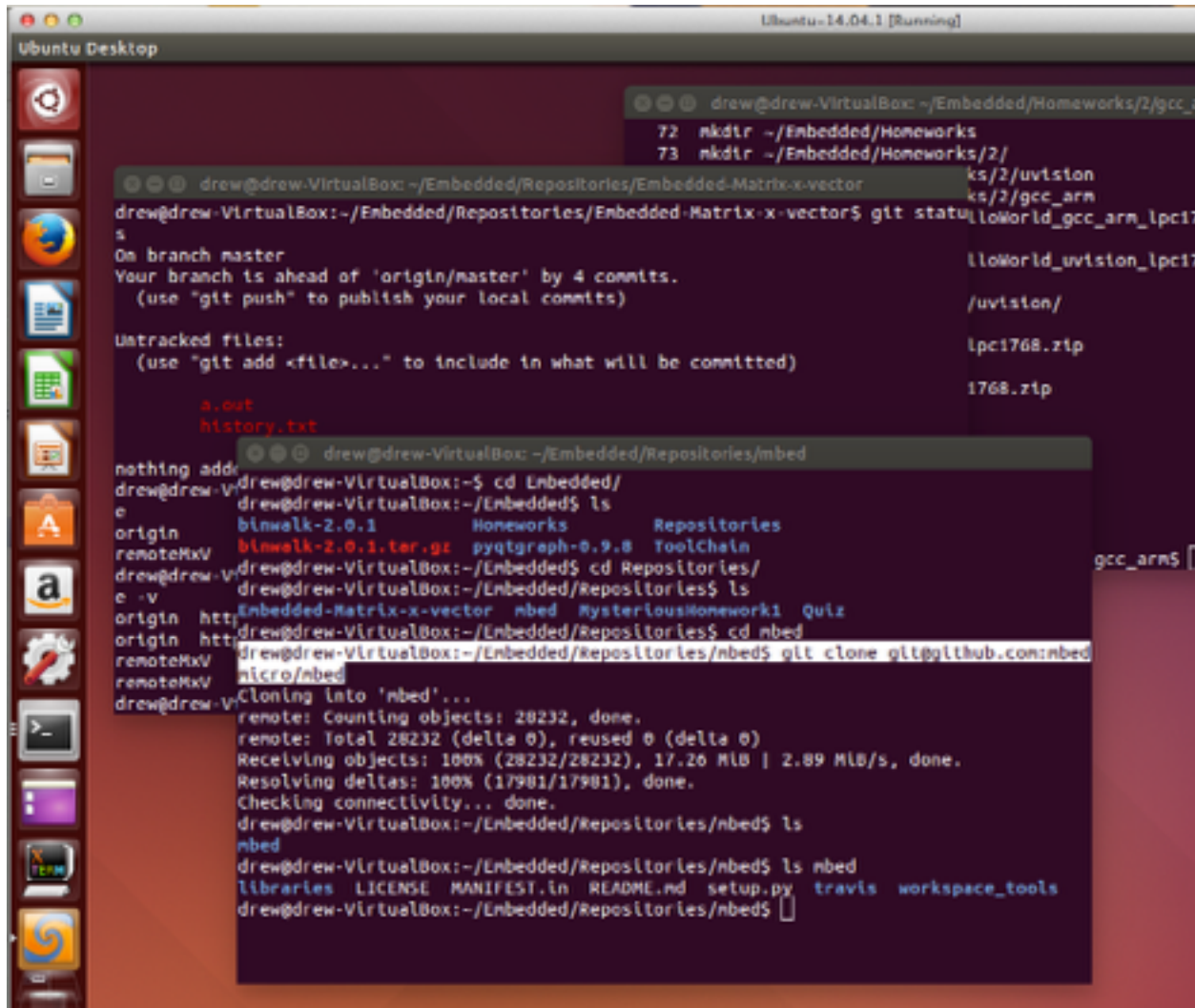
2. binwalk exercise:

This has been installed, though I'm not sure what the function of this is...(still investigating.)

3. git clone exercise:

```
drew@drew-VirtualBox:~/Embedded/Repositories/mbed$ git clone git@github.com:mbedmicro/mbed
```

Here is a snapshot to show that I've done it:



The screenshot shows a terminal window on an Ubuntu Desktop. The terminal output is as follows:

```
drew@drew-VirtualBox: ~/Embedded/Repositories/Embedded-Matrix-x-vector
drew@drew-VirtualBox:~/Embedded/Repositories/Embedded-Matrix-x-vector$ git status
On branch master
Your branch is ahead of 'origin/master' by 4 commits.
(use "git push" to publish your local commits)

Untracked files:
  (use "git add <file>..." to include in what will be committed)

  a.out
  history.txt

nothing added to commit but untracked files present (use "git add" to track)
drew@drew-VirtualBox:~/Embedded/Repositories/mbed$ ls
binwalk-2.0.1      Homeworks      Repositories
remoteMxV         binwalk-2.0.1.tar.gz  pyqtgraph-0.9.8  ToolChain
drew@drew-VirtualBox:~/Embedded$ cd Repositories/
drew@drew-VirtualBox:~/Embedded/Repositories$ ls
Embedded-Matrix-x-vector  mbed  MysteriousHomework1  Quiz
origin http://
remoteMxV
remoteMxV
drew@drew-VirtualBox:~/Embedded/Repositories/mbed$ git clone git@github.com:mbedmicro/mbed
Cloning into 'mbed'...
remote: Counting objects: 28232, done.
remote: Total 28232 (delta 0), reused 0 (delta 0)
Receiving objects: 100% (28232/28232), 17.26 MiB | 2.89 MiB/s, done.
Resolving deltas: 100% (17981/17981), done.
Checking connectivity... done.
drew@drew-VirtualBox:~/Embedded/Repositories/mbed$ ls
mbed
drew@drew-VirtualBox:~/Embedded/Repositories/mbed$ ls mbed
libraries LICENSE MANIFEST.in README.md setup.py travis workspace_tools
drew@drew-VirtualBox:~/Embedded/Repositories/mbed$
```