Getting Started with the VM

If you wish to write a compiler for the course, you will need an environment in which to do so. Due to the complexity of getting all the needed tools installed correctly, we provide a pre-configured Linux system via VirtualBox VM.

VirtualBox allows you to install the VM on your own computer. Instructions on setting up VirtualBox are available here (**VirtualBox VM setup.pdf**).

Once the VM is set up, you can compile the example programs. Once the assignments become available, you will be able to work on these inside the VM as well.

To play around with the example cool programs, make a directory and copy over one or more examples from the /usr/class/cs143/examples directory. These examples are the same as the ones posted on the website. The coolc command will run the reference compiler to generate the assembly output (.s) file, which you can run using the spim simulator. For example, to compile and run "hello_world.cl", run in a terminal (where $ represents the prompt):

```
$ mkdir examples
$ cd examples
$ cp /usr/class/cs143/examples/hello_world.cl .
$ coolc hello_world.cl
$ spim hello_world.s
SPIM Version 6.5 of January 4, 2003
Copyright 1990-2003 by James R. Larus (larus@cs.wisc.edu).
All Rights Reserved.
See the file README for a full copyright notice.
Loaded: /usr/class/cs143/cool/lib/trap.handler
Hello, World.
COOL program successfully executed
Stats -- #instructions : 152
        #reads : 27  #writes 22  #branches 28  #other 75
```