

Programming Assignment One -- Appendix

Install Eclipse on the Minimal Arch VM:

Note: Eclipse Neon only works with JRE8!

Clear some room on /
`sudo paccache -r -k 0`

Install the Java Runtime Environment and Valgrind
`sudo pacman -S jre8-openjdk valgrind`

Clear some room on /
`sudo paccache -r -k 0`

Download and install Eclipse for C++
`cd ~/Downloads`
`wget http://zeus.cs.pacificu.edu/chadd/eclipse-cpp-neon-3-linux-gtk-x86_64.tar.gz`
`cd /usr/local/share`
`sudo tar xzf ~/Downloads/eclipse-cpp-neon-3-linux-gtk-x86_64.tar.gz`

Test

```
cd ~  
/usr/local/share/eclipse/eclipse &
```

Setup port forwarding on Minimal Arch VM:

In VirtualBox with the VM shutdown. This allows you to ssh to your VM from your host machine (including using FileZilla or putty scp to sftp).

Network | Advanced | Port Forwarding
Plus
Host Port: 2223
Guest Port: 22
OK

Using GitLab/GitHub with Eclipse

1. Create Empty Repository on GitLab / GitHub
2. In Eclipse (Neon):
 1. File | New Project | C Project
 2. Makefile Project | Empty Project
 3. Linux GCC
 4. Next
 5. Finish
 6. Build C project (bin/ src/ Makefile, bin/.gitignore, .gitignore, src/test.c)

1. .gitignore shown on next page

7. Team | Share project | Git
 1. Use or create repository in parent folder of project
 2. Create Repository
 3. Finish

8. Team | Commit

9. Team | Push Branch master

Resources:

Setup SSH Keys:

<https://stackoverflow.com/a/38346294>

<http://www.vogella.com/tutorials/EclipseGit/article.html>

<https://www.slideshare.net/sokngimlasy/add-eclipse-project-with-git-lab>

```
bin/.gitignore
# START
# Ignore everything in this directory
*
# Except this file
!.gitignore
# https://stackoverflow.com/questions/115983/how-can-i-add-an-empty-directory-to-a-git-
repository/932982#932982
# END
```

```
.gitignore
# download and use the following with edits shown below.
# https://github.com/github/gitignore/blob/master/Global/Eclipse.gitignore
# executable
test
##
#bin/
```

What you need for Thursday

1. Email me your repository! Or share GitHub/GitLab with chaddcw
2. Print Makefile, source code, Answers.txt
3. Install gdb on Minimal Arch system
4. Have code runnable on Minimal Arch system
 1. Test ltrace! Google: ltrace *error message*
5. No warnings - cast them away
 1. How big is a pointer?
 2. What printable data type matches that?