

CS 300 In Class Valgrind Lab

Import the Valgrind Lab into Eclipse.

File | Import | SVN | Create a new repository location

URL: svn+ssh://zeus.cs.pacificu.edu/home/CS300Public/2011/SVNROOT_CS300_2011

Select project: CS300SValgrindLab

Team | Disconnect to disconnect from the public SVN Repository

 SELECT: Also delete the SVN meta information from the file system

Team | Share to put it in your own SVN Repository

The lab contains two C files, `dynamicArrays.c` and `dynamicList.c`, a Makefile and a data file, `numbers.txt`. You must find and fix memory errors in both files.

Use Valgrind to profile the code and see where some errors come from.

- 1) Run `dynamicArrays` from inside Eclipse. Very often if you have memory errors you will get no output on the console inside Eclipse.
- 2) Run `dynamicArrays` from the command line.
`cd workspace/CS300ValgrindLab;`
`./dynamicArrays`
- 3) Run `dynamicArrays` through `valgrind` at the command line
`valgrind -v --leak-check=yes ./dynamicArrays`
- 4) Run `dynamicArrays` through `valgrind` in Eclipse
Right Click `dynamicArrays` | Profile as | Profile with Valgrind
 ▶ In the errors, look for lines of code in your source files (not in `/libc-2.X.so`)
- 5) Fix errors! Iterate! Memory errors may mask other memory errors!

Use Valgrind to debug `dynamicList` as well. `dynamicList` may not crash, but does produce bad output!

Ask questions!