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CS 362

**Mini Assignment 1:**

Due 7/6/15 (July, 6th)

Experience report using static analysis tool

Select any static analysis tool usable for any language according to your liking. Use that tool on any project (Your own or some open source project) and answer the following questions. Also submit the log/output of running the tool.

1. Language:

C/C++

1. List the tools you looked at before selecting this tool:

UNO, Lint, Coverity, KlocWork, CodeSonar

1. Tool selected for using:

Splint

1. Why this tool:

It had a usable Windows implementation, so I could run it easily.

1. Which software project did you analyze? (Provide the URL if open source):

<https://github.com/chocolate-doom/chocolate-doom>

1. Provide details of the software (what the software is supposed to do):
2. SLOC: 1597 (discounting comments)
3. Domain: Entertainment

The file is the configuration settings dialogue for an implementation of the DOOM video game that aims to be as true to the original distribution as possible.

1. What problems did you face while using this tool (If any)?

I ran into a ton of parse errors, so only a couple programs I ran it on would work properly.

1. Did the tool find any false positive warnings, how many:

Many warnings that the operand ! is on a non-boolean, which is allowed, or that initial values are not of the expected type. It found 32 warnings in all.

1. Did the tool report some warnings which were actually bugs (true positives), how many:

Not that I can see. Everything seems to be very technical “warnings” that don’t impact performance.

1. Did the tool miss some bugs which you already knew were actually bugs (false negative), how many:

I’m not familiar with the program, but it seems like it’s pretty airtight.

1. Discuss your overall experience with using this tool:

I had to install two separate instances - the splint binaries and the splint GUI - which wasn’t immediately obvious and doesn’t make sense why the developers wouldn’t include the binaries with the GUI.