

Programming Project #2
CpSc 8270: Language Translation
Computer Science Division, Clemson University
5|>34|<1|\|6 1|\| 1337
Brian Malloy, PhD
September 14, 2016

Due Date:

In order to receive credit for this assignment, your solution must meet the requirements specified in this document and be submitted, using the `handin` web page, by 8 AM, Thursday, September 15th, 2016. The `handin` close date is set at three days after the due date. If you submit after the due date but before the `handin` close date there will be a ten point deduction. No submissions will be accepted after the `handin` close date and no submissions will be accepted by email.

Project Overview:

1337 is an alternative vocabulary and alphabet that is used primarily on the Internet as a specialized form of symbolic writing. 1337 was originally used by computer hackers but it has evolved as a tool for encryption or obfuscation, which some Internet users feel is necessary in help combat the proliferation of hackers attempting to steal passwords and other information. Some of you may already be using 1337; for example, some DPA passwords are encoded in 1337.

Project Specification:

Your assignment is to use the GNU tool, `flex`, to build a translator from *English* to *l337*, and from *l337* to *English*. The purpose of this project is to provide an opportunity for you to learn to use the tool `flex`, and to gain some experience with *l337* translation. To test your *l337* translator we will use your *english* to *leet* translator (`etol`) to encode a message from *english* to *l337*, then we will use your *leet* to *english* translator (`ltoe`) to decode the message.

If your *l337* translator translates “ordinary” *l337* you will receive 90% as your grade. If you can build a *l337* translator with more obfuscation, or other enhancement or pizzazz, you will receive 100% as your grade.

There are many dialects, or accepted versions of *l337*, ranging from basic *l337* to advanced, or *pro l337*. One possible enhancement is to translate digits into the corresponding word, so that the digit 1 would translate to *one*, 2 would translate to *two*, etc.

You must submit your assignment using the web `handin` command, which can be found at:

<https://handin.cs.clemson.edu>

Sample Execution:

As an example of translating from etol, consider the following:

7h15 15 4 l337 53n73nc3.

Then, using the above *l337* expression as input to ltoe:

this is a leet sentence.

Information about l337:

There is a lot of information on the Internet about l337, and there are translators:

<http://en.wikipedia.org/wiki/Leet>

http://simple.wikipedia.org/wiki/Leet#Wrong_grammar

<http://l337.me/>

<http://www.robertecker.com/hp/research/leet-converter.php?lang=en>

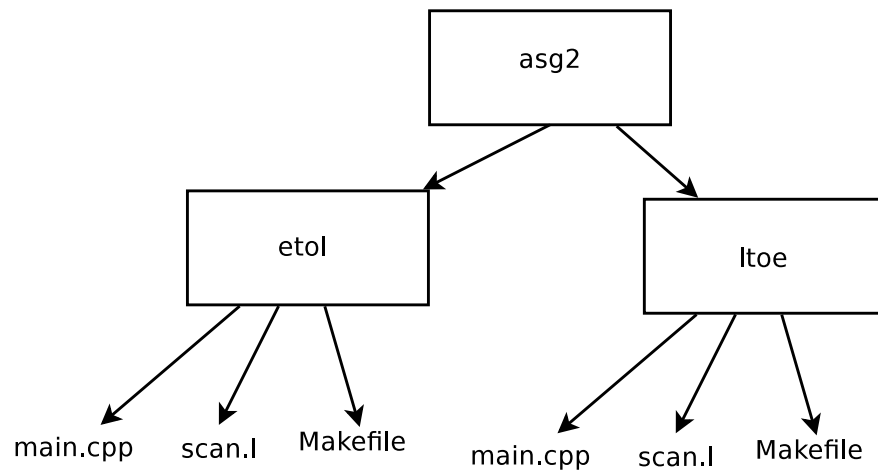


Figure 1: **Directory Structure.**