

Homework #5: Flex and Bison

Issued: Monday, April 6

Due: Monday, April 27

Purpose

This assignment allows you to become familiar with the most popular scanner generator and parser generator.

Description

Modify your recursive-descent translator, for the programming language described in Appendix A of our textbook, which you developed in an earlier assignment, to use a Flex-generated scanner and a Bison-generated parser.

Since Bison generates bottom-up parsers, use the original left-recursive grammar:

```
onyx:~buff/classes/450/pub/j2a/grammar.txt
```

Do not modify the grammar!

If you are careful, you can reuse these modules from your recursive-descent translator:

- string table
- symbol table
- type checker
- code generator
- main

Here's a template for your Flex specification:

```
onyx:~buff/classes/450/pub/j2a/flex-scanner.l
```

In order to use `readline`, Flex's default input mechanism must be overridden. You will not need to modify this file:

```
onyx:~buff/classes/450/pub/j2a/yyinput.h
```

Here's a template for your Bison specification:

```
onyx:~buff/classes/450/pub/j2a/bison-parser.y
```

The test suite for your recursive-descent translator should also be reusable, although error messages might be slightly different.

As before, turn in listings of your code, test input, and test output.

As before, your submission will be evaluated on `onyx`.