

SCC by KREG - Usage

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1 Usage

The basic usage format for the SCC compiler is as follows:

```
[options] SOURCEFILE.[c|ir] [OUTPUTFILE]
```

The compiler takes input from a .c file and can output user-specified results to the terminal. Those results include:

- -t Print tokens
- -p Print parse tree
- -a Print abstract syntax tree
- -s Print symbol table
- -i Print intermediate representation
- -w Write the IR to OUTPUTFILE (will fail if no OUTPUTFILE given)
- -r Read in a given IR from SOURCEFILE.ir instead of C code. This file MUST have a “.ir” file extension.
- -O Perform optimizations
- -S Generate assembly code and save it in SOURCEFILE.s

Only one dash is required. Multiple options can be entered as “-xyz”.

It should be noted that options t, p, a, and s cannot be used with the “-r” option because they require C source code. If any of these options are used with “-r”, they will be ignored.

1.1 Run instructions:

Ensure that the repository is cloned and unzipped then navigate into the folder.

- Windows

Compile .g4: `java -jar antlr-4.8-complete.jar kregGrammar.g4 -o out`

Compile java: `javac -cp “.;antlr-4.8-complete.jar;out” *.java`

Run Example: `java -cp “.;antlr-4.8-complete.jar;out” SCC tests\ex1.c`

Print tokens: `java -cp “.;antlr-4.8-complete.jar;out” SCC -t tests\ex1.c`

- Mac / Linux

Compile .g4: `java -jar antlr-4.8-complete.jar kregGrammar.g4 -o out`

Compile java: `javac -cp “.:antlr-4.8-complete.jar:out” *.java`

Run Example: `java -cp “.:antlr-4.8-complete.jar:out” SCC tests/ex1.c`

Print tokens: `java -cp “.:antlr-4.8-complete.jar:out” SCC -t tests/ex1.c`