

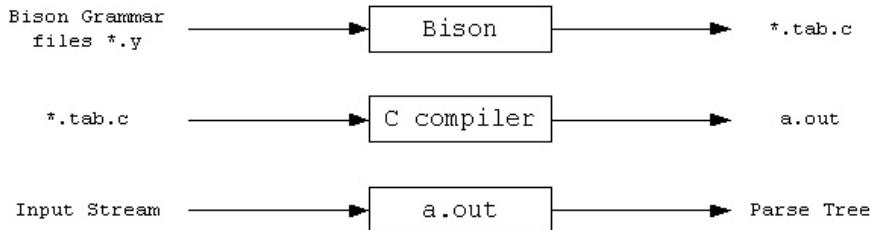
Bison

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Bison

- Bison is a parser generator
- Bison is a bottom-up parser
- Accepts LALR(1) grammars and emits a C program to parse that grammar



Format of the input file

```
%{  
C Declarations  
%}  
Bison Declarations  
%%  
Grammar Rules  
%%  
Additional C Code
```

- **Useful Bison definitions:** %token, %union, %type, %left, %right, %nonassoc, ...
- **Important data structures and functions:** yylval, YYSTYPE, yyperror(), yyparse()

Compiling the program

Assume that the flex file is `p1.l` and the bison file is `p1.y`. The compilation steps are:

```
$ flex p1.l # produces lex.yy.c, which is
            # included in p1.y through #include
$ bison p1.y # produces p1.tab.c
$ gcc p1.tab.c -o p1.exe -lfl -ly
```