

## YACC(I)

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### NAME

yacc — yet another compiler-compiler

### SYNOPSIS

**yacc** [ **-vrd** ] [ grammar ]

### DESCRIPTION

*Yacc* converts a context-free grammar into a set of tables for a simple automaton which executes an LR(1) parsing algorithm. The grammar may be ambiguous; specified precedence rules are used to break ambiguities.

The output is *y.tab.c*, which must be compiled by the C compiler and loaded with any other routines required (perhaps a lexical analyzer) and the *yacc* library:

```
cc y.tab.c other.o -ly
```

If the **-v** flag is given, the file *y.output* is prepared, which contains a description of the parsing tables and a report on conflicts generated by ambiguities in the grammar.

The **-r** flag causes *yacc* to accept grammars with Ratfor actions, and produce Ratfor output on *y.tab.r*. Typical usage is then

```
rc y.tab.r other.o
```

If the **-d** flag is used, the file *y.tab.h* is generated with the *define* statements that associate the *yacc*-assigned “token codes” with the user-declared “token names”. This allows source files other than *y.tab.c* to access the token codes.

### SEE ALSO

lex(I)

*LR Parsing* by A. V. Aho and S. C. Johnson, Computing Surveys, June, 1974.

*YACC — Yet Another Compiler Compiler* by S. C. Johnson.

### FILES

y.output	
y.tab.c	
y.tab.r	when ratfor output is obtained
y.tab.h	defines for token names
yacc.tmp, yacc.acts	temporary files
/lib/liby.a	runtime library for compiler
/usr/lib/yaccpar	parser prototype for C programs
/usr/lib/yaccrpar	parser prototype for Ratfor programs

### DIAGNOSTICS

The number of reduce-reduce and shift-reduce conflicts is reported on the standard output; a more detailed report is found in the *y.output* file.

### BUGS

Because file names are fixed, at most one *yacc* process can be active in a given directory at a time.

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