

NAME

yacc – yet another compiler-compiler

SYNOPSIS

yacc [**-vor**] [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 **-o** flag calls an optimizer for the tables; the optimized tables, with parser included, appear on file *y.tab.c*

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

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

SEE ALSO

“LR Parsing”, by A. V. Aho and S. C. Johnson, *Computing Surveys*, June, 1974. “The YACC Compiler-compiler”, internal memorandum.

AUTHOR

S. C. Johnson

FILES

<i>y.output</i>	
<i>y.tab.c</i>	
<i>y.tab.r</i>	when ratfor output is obtained
<i>yacc.tmp</i>	when optimizer is called
<i>/lib/liby.a</i>	runtime library for compiler
<i>/usr/yacc/fpar.r</i>	ratfor parser
<i>/usr/yacc/opar.c</i>	parser for optimized tables
<i>/usr/yacc/yopti</i>	optimizer postpass

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.