

## NAME

*f77* - FORTRAN 77 compiler

## SYNOPSIS

*f77* [ option ] ... file ...

## DESCRIPTION

*F77* is the UNIX Fortran 77 compiler. It accepts several types of arguments:

Arguments whose names end with *.f* are taken to be Fortran 77 source programs; they are compiled, and each object program is left on the file in the current directory whose name is that of the source with *.o* substituted for *.f*.

Arguments whose names end with *.r* or *.e* are taken to be Ratfor or EFL source programs, respectively; these are first transformed by the appropriate preprocessor, then compiled by *f77*.

In the same way, arguments whose names end with *.c* or *.s* are taken to be C or assembly source programs and are compiled or assembled, producing a *.o* file.

The following options have the same meaning as in *cc*(1). See *ld*(1) for load-time options.

- c Suppress loading and produce *.o* files for each source file.
- p Prepare object files for profiling, see *prof*(1).
- O Invoke an object-code optimizer.
- S Compile the named programs, and leave the assembler-language output on corresponding files suffixed *.s*. (No *.o* is created.)
- o output  
Name the final output file *output* instead of *a.out*.
- f Load programs with the floating point interpreter.

The following options are peculiar to *f77*.

- onetrip Compile DO loops that are performed at least once if reached. (Fortran 77 DO loops are not performed at all if the upper limit is smaller than the lower limit.)
- u Make the default type of a variable 'undefined' rather than using the default Fortran rules.
- w Suppress all warning messages. If the option is *-w66*, only Fortran 66 compatibility warnings are suppressed.
- F Apply EFL and Ratfor preprocessor to relevant files, put the result in the file with the suffix changed to *.of*, but do not compile.
- m Apply the M4 preprocessor to each EFL or Ratfor source file before transforming with the ratfor or efl processor.
- E The remaining characters in the argument are used as an EFL flag argument whenever processing a *.e* file.
- R The remaining characters in the argument are used as a Ratfor flag argument whenever processing a *.r* file.

Other arguments are taken to be either loader option arguments, or *F77*-compatible object programs, typically produced by an earlier run, or perhaps libraries of *F77*-compatible routines. These programs, together with the results of any compilations specified, are loaded (in the order given) to produce an executable program with name *a.out*.

## FILES

file.[fresc]	input file
file.o	object file

a.out	loaded output
./fort[pid].?	temporary
/usr/lib/f77pass1	compiler
/lib/c1	pass 2
/lib/c2	optional optimizer
/usr/lib/libF77.a	intrinsic function library
/usr/lib/libI77.a	Fortran I/O library
/lib/libc.a	C library; see Section 3 of this volume.

**SEE ALSO**

S. I. Feldman, P. J. Weinberger, *A Portable Fortran 77 Compiler (TM-78-1273-1 = TM-78-3444-1)*

prof(1), cc(1), ld(1)

**DIAGNOSTICS**

The diagnostics produced by *f77* itself are intended to be self-explanatory. Occasional messages may be produced by the loader.

**BUGS**

This program is too big to run on processors with no Floating Point hardware.