UNIX f2c Option Switch Syntax

This file provides the UNIX option switches that can be passed to the f2c kernel. These switches are primarily meant to be used when sending the f2c Apple Event to Mac F2C.   They can also be entered in the Advanced Options dialog if the Allow direct input of UNIX-style option switches check-box (in the Mac F2C Preferences dialog) has been checked.   If you take advantage of this latter capability, please be careful: Mac F2C will not check to see if the option switches you enter directly are compatible with the ones implicitly set by the options you select in the other dialog boxes.

The following section has been extracted directly from the UNIX man page for f2c.

Description

f2c converts FORTRAN 77 source code in files with names ending in .f or .F to C (or C++) source files in the current directory, with .c substituted for the final .f or .F.   File names that end with .p or .P are taken to be prototype files, as produced by option -P, and are read first.

- -C
Compile code to check that subscripts are within declared array bounds.

- -I2
Render INTEGER and LOGICAL as short, INTEGER*4 as long int.   Assume the default libF77 and libI77:   allow only INTEGER*4 (and no LOGICAL) variables in INQUIREs.   Option "-I4" confirms the default rendering of INTEGER as long int.

- -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
Honor the case of variable and external names.   FORTRAN keywords must be in lower case.

- -u
Make the default type of a variable "undefined" rather than using the default FORTRAN rules.

- -w
Suppress all warning messages, or, if the option is "-w66", just FORTRAN 66 compatibility warnings.

- -A

Produce ANSI C.   Default is old-style C.

- **-a**

Make local variables automatic rather than static unless they appear in a DATA, EQUIVALENCE, NAMELIST, or SAVE statement.

- **-C++**

Produce C++ code.

- **-c**

Include original FORTRAN source as comments.

- **-E**

Declare uninitialized COMMON to be Extern (overrideably defined in f2c.h as extern).

- **-ec**

Place uninitialized COMMON blocks in separate files: COMMON /ABC/ appears in file abc_com.c.

- **-ext**

Complain about f77(1) extensions.

- **-f**

Assume free-format input: accept text after column 72 and do not pad fixed-format lines shorter than 72 characters with blanks.

- **-72**

Treat text appearing after column 72 as an error.

- **-g**

Include original FORTRAN line numbers in #line lines.

- **-h**

Emulate FORTRAN 66's treatment of Hollerith: try to align character strings on word (or, if the option is "-hd", on double-word) boundaries.

- **-i2**

Similar to -I2, but assume a modified libF77 and libI77 (compiled with -Df2c_i2), so INTEGER and LOGICAL variables may be assigned by INQUIRE and array lengths are stored in short ints.

- **-kr**

Use temporary values to enforce FORTRAN expression evaluation where K&R (first edition) parenthesization rules allow rearrangement.   If the option is "-krd", use double precision temporaries even for single-precision operands.

- **-P**

Write a file.P of ANSI (or C++) prototypes for definitions in each input file.f or file.F.   When reading FORTRAN from standard input, write prototypes at the beginning of standard output.   Option -Ps implies -P and gives exit status 4 if rerunning f2c may change prototypes or

declarations.

- **-p**
Supply preprocessor definitions to make common-block members look like local variables.

- **-R**
Do not promote REAL functions and operations to DOUBLE PRECISION. Option "-!R" confirms the default, which imitates f77.

- **-r**
Cast values of REAL functions (including intrinsics) to REAL.

- **-r8**
Promote REAL to DOUBLE PRECISION, COMPLEX to DOUBLE COMPLEX.

- **-s**
Preserve multidimensional subscripts. Suppressed by option "-C".

- **-w8**
Suppress warnings when COMMON or EQUIVALENCE forces odd-word alignment of doubles.

- **-Wn**
Assume n characters/word (default 4) when initializing numeric variables with character data.

- **-z**
Do not implicitly recognize DOUBLE COMPLEX.

- **-!bs**
Do not recognize backslash escapes (\", \', \0, \\, \b, \f, \n, \r, \t, \v) in character strings.

- **-!c**
Inhibit C output, but produce -P output.

- **-!I**
Reject include statements.

- **-!i8**
Disallow INTEGER*8.

- **-!it**
Don't infer types of untyped EXTERNAL procedures from use as parameters to previously defined or prototyped procedures.

- **-!P**
Do not attempt to infer ANSI or C++ prototypes from usage.

See Also

S. I. Feldman and P. J. Weinberger, A Portable FORTRAN 77 Compiler, UNIX Time Sharing System Programmer's Manual, Tenth Edition, Volume 2, AT&T Bell Laboratories, 1990.

Diagnostics

The diagnostics produced by f2c are intended to be self-explanatory.

Bugs

Floating-point constant expressions are simplified in the floating-point arithmetic of the machine running f2c, so they are typically accurate to at most 16 or 17 decimal places.

Untypeable EXTERNAL functions are declared int.