

NAG Library Routine Document

E05JLF

Note: before using this routine, please read the Users' Note for your implementation to check the interpretation of *bold italicised* terms and other implementation-dependent details.

1 Purpose

E05JLF is used to get the value of a real E05JBF optional parameter. E05JLF can be used before or after calling E05JBF, but the initialization routine E05JAF **must** have been called before calling E05JLF.

2 Specification

```
SUBROUTINE E05JLF(OPTSTR, RVALUE, COMM, LCOMM, IFAIL)
  INTEGER          LCOMM, IFAIL
  double precision RVALUE, COMM(LCOMM)
  CHARACTER*(*)    OPTSTR
```

3 Description

E05JLF obtains the current value of a real-valued optional parameter. For example

```
CALL E05JLF ('Local Searches Tolerance', LOCTOL, COMM, LCOMM, IFAIL)
```

will result in the value of the optional parameter Local Searches Tolerance being output in LOCTOL.

A complete list of optional parameters, their symbolic names and default values is given in Section 11 in E05JBF.

4 References

None.

5 Parameters

- 1: OPTSTR – CHARACTER*(*) *Input*
On entry: a string identifying a real-valued optional parameter (as described in Section 11 in E05JBF).
- 2: RVALUE – **double precision** *Output*
On exit: if IFAIL = 0 on exit, RVALUE contains the real value associated with the optional parameter in OPTSTR.
- 3: COMM(LCOMM) – **double precision** array *Communication Array*
On entry: communication data as initialized by E05JAF.
- 4: LCOMM – INTEGER *Input*
On entry: the dimension of the array COMM as declared in the (sub)program from which E05JLF is called.
Constraint: LCOMM $\geq$ 100.
- 5: IFAIL – INTEGER *Input/Output*
On entry: IFAIL must be set to 0, -1 or 1. If you are unfamiliar with this parameter you should refer to Section 3.3 in the Essential Introduction for details.

On exit: IFAIL = 0 unless the routine detects an error (see Section 6).

For environments where it might be inappropriate to halt program execution when an error is detected, the value -1 or 1 is recommended. If the output of error messages is undesirable, then the value 1 is recommended. Otherwise, if you are not familiar with this parameter, the recommended value is 0 . **When the value -1 or 1 is used it is essential to test the value of IFAIL on exit.**

6 Error Indicators and Warnings

If on entry IFAIL = 0 or -1 , explanatory error messages are output on the current error message unit (as defined by X04AAF).

Errors or warnings detected by the routine:

IFAIL = 1

On entry, LCOMM < 100,
or the initialization routine E05JAF has not been called.

IFAIL = 2

The optional parameter given in OPTSTR is invalid. The correct number of word ‘tokens’ are present but a keyword or keyword combination is invalid.

IFAIL = 3

The optional parameter given in OPTSTR is not associated with a real value. See Section 11 in E05JBF for a full list of the optional parameters.

IFAIL = 4

The optional-parameter name contained the wrong number of word ‘tokens’, so could not be recognized by the routine.

7 Accuracy

Not applicable.

8 Further Comments

None.

9 Example

See Section 9 in E05JCF.
