

NAG Library Routine Document

E05JFF

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

E05JFF may be used to supply individual integer optional parameters to E05JBF. The initialization routine E05JAF **must** have been called before calling E05JFF.

2 Specification

```
SUBROUTINE E05JFF(OPTSTR, IVALUE, COMM, LCOMM, IFAIL)
INTEGER          IVALUE, LCOMM, IFAIL
double precision COMM(LCOMM)
CHARACTER*(*)    OPTSTR
```

3 Description

E05JFF may be used to supply values for integer optional parameters to E05JBF. It is only necessary to call E05JFF for those parameters whose values are to be different from their default values. One call to E05JFF sets one parameter value.

Each integer optional parameter is defined by a single character string in OPTSTR and the corresponding value in IVALUE. For example, the following allows the function evaluations limit to be defined:

```
NF = 1000
CALL E05JFF ('Function Evaluations Limit', NF, COMM, LCOMM, IFAIL)
```

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 an integer-valued optional parameter (as described in Section 11 in E05JBF).
- 2: IVALUE – INTEGER *Input*
On entry: an integer value associated with the optional parameter in OPTSTR.
- 3: COMM(LCOMM) – **double precision** array *Communication Array*
On exit: COMM **must not** be altered between calls to any of the routines E05JBF, E05JCF, E05JDF, E05JEF, E05JFF, E05JGF, E05JHF, E05JIF, E05JKF and E05JLF.
- 4: LCOMM – INTEGER *Input*
On entry: the dimension of the array COMM as declared in the (sub)program from which E05JFF 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 numerical value to be set is out of range with respect to the optional parameter given in OPTSTR. See Section 11 in E05JBF for allowable values 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

E05JCF or E05JDF may also be used to supply integer optional parameters to E05JBF.

9 Example

See Section 9 in E05JCF.
