NAG Fortran 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 (STRING, IVALUE, RW, LENRW, IFAIL)
INTEGER            IVALUE, LENRW, IFAIL
double precision   RW(LENRW)
CHARACTER*(*)      STRING
```

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 STRING 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, RW, LENRW, IFAIL)
```

Optional parameter settings are preserved following a call to E05JBF and so the keyword **Defaults** is provided to allow you to reset all the optional parameters to their default values before a subsequent call to E05JBF.

A complete list of optional parameters, their abbreviations, synonyms and default values is given in Section 11 of the document for E05JBF.

4 References

None.

5 Parameters

1: STRING – CHARACTER*(*) *Input*

On entry: a valid INTEGER optional parameter (as described in Section 11 of the document for E05JBF).

2: IVALUE – INTEGER *Input*

On entry: an INTEGER value associated with the keyword in STRING.

3: RW(LENRW) – ***double precision*** array *Communication Array*

The array RW **must not** be altered between calls to any of the routines E05JBF, E05JCF, E05JDF, E05JEF, E05JFF, E05JGF, E05JHF, E05JKF and E05JLF.

4: LENRW – INTEGER *Input*

On entry: the dimension of the array RW as declared in the (sub)program from which E05JFF is called.

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 Chapter P01 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

The initialization routine E05JAF has not been called.

IFAIL = 2

The supplied option is invalid. Check that the keywords are neither ambiguous nor misspelt.

IFAIL = 3

The numerical value to be set is out of range with respect to the optional parameter given in STRING. See Section 11 of the document for E05JBF for allowable values of the optional parameters.

IFAIL = 4

The option-name contained the wrong number of word ‘tokens’, so could not be recognised 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 of the document for E05JCF.