

NAG Library Routine Document

E05JHF

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

E05JHF is used to check if you have set an optional parameter of E05JBF. The initialization routine E05JAF **must** have been called before calling E05JHF.

2 Specification

```
FUNCTION E05JHF (OPTSTR, COMM, LCOMM, IFAIL)
INTEGER E05JHF

INTEGER          LCOMM, IFAIL
REAL (KIND=nag_wp) COMM(LCOMM)
CHARACTER(*)    OPTSTR
```

3 Description

E05JHF returns 1 if you have previously set the optional parameter contained in OPTSTR, otherwise it returns 0.

A complete list of optional parameters, their symbolic names and default values is given in Section 12 in E05JBF.

4 References

None.

5 Parameters

- 1: OPTSTR – CHARACTER(*) *Input*
On entry: a string identifying an optional parameter (as described in Section 12 in E05JBF).
- 2: COMM(LCOMM) – REAL (KIND=nag_wp) array *Communication Array*
On entry: communication data as initialized by E05JAF.
- 3: LCOMM – INTEGER *Input*
On entry: the dimension of the array COMM as declared in the (sub)program from which E05JHF is called.
Constraint: $LCOMM \geq 100$.
- 4: 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.

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.**

On exit: IFAIL = 0 unless the routine detects an error or a warning has been flagged (see Section 6).

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

Initialization routine E05JAF has not been called.

On entry, LCOMM = $\langle value \rangle$.

Constraint: LCOMM \geq 100.

IFAIL = 2

The supplied optional parameter is invalid. A keyword or keyword combination was not recognized.

IFAIL = -99

An unexpected error has been triggered by this routine. Please contact NAG.

See Section 3.8 in the Essential Introduction for further information.

IFAIL = -399

Your licence key may have expired or may not have been installed correctly.

See Section 3.7 in the Essential Introduction for further information.

IFAIL = -999

Dynamic memory allocation failed.

See Section 3.6 in the Essential Introduction for further information.

7 Accuracy

Not applicable.

8 Parallelism and Performance

Not applicable.

9 Further Comments

None.

10 Example

See Section 10 in E05JCF.
