

# 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

```
INTEGER FUNCTION E05JHF(OPTSTR, COMM, LCOMM, IFAIL)
INTEGER                                LCOMM, IFAIL
double precision                     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 11 in E05JBF.

### 4 References

None.

### 5 Parameters

- 1: OPTSTR – CHARACTER\*(\*) *Input*  
*On entry:* a string identifying an optional-parameter (as described in Section 11 in E05JBF).
- 2: COMM(LCOMM) – **double precision** 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.  
*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 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.

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