

NAG Library Routine Document

E04WKF

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

E04WKF is used to get the value of an INTEGER optional parameter. E04WKF can be used before or after calling E04WDF.

2 Specification

```
SUBROUTINE E04WKF (STRING, IVALUE, IW, RW, IFAIL)
INTEGER           IVALUE, IW(*), IFAIL
double precision RW(*)
CHARACTER*(*)     STRING
```

3 Description

E04WKF obtains the current value of an INTEGER option. For example

```
CALL E04WKF ('Iterations', ITNLIM, IW, RW, IFAIL)
```

will result in the value of the optional parameter Major Iterations Limit being output in ITNLIM.

A complete list of optional parameters, their abbreviations, synonyms and default values is given in Section 11 in E04WDF.

4 References

None.

5 Parameters

- 1: STRING – CHARACTER*(*) *Input*
On entry: a single valid keyword of an INTEGER optional parameter (as described in Section 11 in E04WDF).
- 2: IVALUE – INTEGER *Output*
On exit: the INTEGER value associated with the keyword in STRING.
- 3: IW(*) – INTEGER array *Communication Array*
Note: the dimension of the array IW must be at least LENIW (see E04WCF).
- 4: RW(*) – **double precision** array *Communication Array*
Note: the dimension of the array RW must be at least LENRW (see E04WCF).
- 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:

$IFAIL = 1$

The initialization routine E04WCF has not been called.

$IFAIL = 2$

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

7 Accuracy

Not applicable.

8 Further Comments

None.

9 Example

See Section 9 in E04WEF.
