NAG Fortran Library Routine Document

E04WLF

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

To get the value of a ***double precision*** optional parameter. This routine can be used before or after calling E04WDF.

2 Specification

```
SUBROUTINE E04WLF (STRING, RVALUE, IW, RW, IFAIL)
INTEGER             IW(*), IFAIL
double precision    RVALUE, RW(*)
CHARACTER*(*)       STRING
```

3 Description

E04WLF obtains the current value of a ***double precision*** option. For example

```
CALL E04WLF ('LU Factor Tolerance', FACTOL, IW, RW, IFAIL)
```

will result in the value of the optional parameter **LU Factor Tolerance** being output in FACTOL.

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

4 References

None.

5 Parameters

1: STRING – CHARACTER*(*) *Input*

On entry: a single valid keyword of an ***double precision*** optional parameter (as described in Section 11 of the document for E04WDF).

2: RVALUE – ***double precision*** *Output*

On exit: the ***double precision*** value associated with the keyword in STRING.

3: IW(∗) – INTEGER array *Communication Array*
4: RW(∗) – ***double precision*** array *Communication Array*

The arrays IW and RW are defined in the document for E04WCF and **must not** be altered between calls to any of the routines E04WCF, E04WDF, E04WEF, E04WFF, E04WGF, E04WHF, E04WKF and E04WLF.

5: IFAIL – INTEGER *Input/Output*

On entry: IFAIL must be set to 0, -1 or 1. Users who are unfamiliar with this parameter 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, for users 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 of the document for E04WEF.