

NAG Fortran Library Routine Document

E04VSF

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 E04VHF.

2 Specification

```
SUBROUTINE E04VSF (STRING, RVALUE, CW, IW, RW, IFAIL)
INTEGER           IW(*), IFAIL
double precision RVALUE, RW(*)
CHARACTER*(*)    STRING
CHARACTER*8      CW(*)
```

3 Description

E04VSF obtains the current value of a *double precision* option. For example

```
CALL E04VSF ('Feasibility Tolerance', FEATOL, CW, IW, RW, IFAIL)
```

will result in the value of the optional parameter **Feasibility Tolerance** being output in FEATOL.

A complete list of optional parameters, their abbreviations, synonyms and default values is given in Section 11 of the document for E04VHF.

4 References

None.

5 Parameters

- | | | |
|----|---------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------|
| 1: | STRING – CHARACTER*(*) | <i>Input</i> |
| | <i>On entry:</i> a single valid keyword of an <i>double precision</i> optional parameter (as described in Section 11 of the document for E04VHF). | |
| 2: | RVALUE – <i>double precision</i> | <i>Output</i> |
| | <i>On exit:</i> the <i>double precision</i> value associated with the keyword in STRING. | |
| 3: | CW(*) – CHARACTER*8 array | <i>Communication Array</i> |
| 4: | IW(*) – INTEGER array | <i>Communication Array</i> |
| 5: | RW(*) – <i>double precision</i> array | <i>Communication Array</i> |

The arrays CW, IW and RW are defined in the document for E04VGF and **must not** be altered between calls to any of the routines E04VGF, E04VHF, E04VKF, E04VLF, E04VMF, E04VNF, E04VRF and E04VSF.

- | | | |
|----|-----------------------------------------------------------------------------------------------------------------------------------------|---------------------|
| 6: | IFAIL – INTEGER | <i>Input/Output</i> |
| | <i>On entry:</i> IFAIL must be set to 0, -1 or 1. Users who are unfamiliar with this parameter should refer to Chapter P01 for details. | |
| | <i>On exit:</i> 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 E04VGF 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 E04VKF.
