

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.
