

NAG Fortran Library Routine Document

E04NXF

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 an INTEGER optional parameter. This routine can be used before or after calling E04NQF.

2 Specification

```
SUBROUTINE E04NXF (STRING, IVALUE, CW, IW, RW, IFAIL)
INTEGER              IVALUE, IW(*), IFAIL
double precision    RW(*)
CHARACTER*(*)        STRING
CHARACTER*8          CW(*)
```

3 Description

E04NXF obtains the current value of an integer option. For example

```
CALL E04NXF ('Iterations', ITNLIM, CW, IW, RW, IFAIL)
```

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

A complete list of optional parameters, their abbreviations, synonyms and default values is given in Section 11 of the document for E04NQF.

4 References

None.

5 Parameters

- | | | |
|----|--|----------------------------|
| 1: | STRING – CHARACTER*(*) | <i>Input</i> |
| | <i>On entry:</i> a single valid keyword of an INTEGER optional parameter (as described in Section 11 of the document for E04NQF). | |
| 2: | IVALUE – INTEGER | <i>Output</i> |
| | <i>On exit:</i> the INTEGER 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(*) – double precision array | <i>Communication Array</i> |
| | The arrays CW, IW and RW are defined in the document for E04NPF and must not be altered between calls to any of the routines E04NPF, E04NQF, E04NRF, E04NSF, E04NTF, E04NUF, E04NXF and E04NYF. | |
| 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 E04NPF 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 E04NRF.
