

NAG Fortran Library Routine Document

E04NPF

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

E04NPF is used to initialize the routine E04NQF.

2 Specification

```
SUBROUTINE E04NPF (CW, LENCW, IW, LENIW, RW, LENRW, IFAIL)
INTEGER          LENCW, IW(LENIW), LENIW, LENRW, IFAIL
double precision RW(LENRW)
CHARACTER*8      CW(LENCW)
```

3 Description

E04NPF initializes the arrays CW, IW and RW for the routine E04NQF.

4 References

None.

5 Parameters

- | | | |
|----|---|----------------------------|
| 1: | CW(LENCW) – CHARACTER*8 array | <i>Communication Array</i> |
| 2: | LENCW – INTEGER | <i>Input</i> |
| | <i>On entry:</i> the dimension of the array CW as declared in the (sub)program from which E04NPF is called. | |
| | <i>Constraint:</i> LENCW $\geq$ 600, see routine E04NQF. | |
| 3: | IW(LENIW) – INTEGER array | <i>Communication Array</i> |
| 4: | LENIW – INTEGER | <i>Input</i> |
| | <i>On entry:</i> the dimension of the array IW as declared in the (sub)program from which E04NPF is called. | |
| | <i>Constraint:</i> LENIW $\geq$ 600, see routine E04NQF. | |
| 5: | RW(LENRW) – double precision array | <i>Communication Array</i> |
| 6: | LENRW – INTEGER | <i>Input</i> |
| | <i>On entry:</i> the dimension of the array RW as declared in the (sub)program from which E04NPF is called. | |
| | <i>Constraint:</i> LENRW $\geq$ 600, see routine E04NQF. | |
| 7: | 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

One or more of the communication array lengths LENCW, LENIW or LENRW is less than 600.

7 Accuracy

Not applicable.

8 Further Comments

The time taken by this routine is negligible.

9 Example

See Section 9 of the documents for E04NQF and E04NRF.
