

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 *Communication Array*
 2: LENCW – INTEGER *Input*

On entry: the dimension of the array CW as declared in the (sub)program from which E04NPF is called.

Constraint: $LENCW \geq 600$, see routine E04NQF.

3: IW(LENIW) – INTEGER array *Communication Array*
 4: LENIW – INTEGER *Input*

On entry: the dimension of the array IW as declared in the (sub)program from which E04NPF is called.

Constraint: $LENIW \geq 600$, see routine E04NQF.

5: RW(LENRW) – *double precision* array *Communication Array*
 6: LENRW – INTEGER *Input*

On entry: the dimension of the array RW as declared in the (sub)program from which E04NPF is called.

Constraint: $LENRW \geq 600$, see routine E04NQF.

7: 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

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.
