

NAG Fortran Library Routine Document

E04WBF

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

E04WBF is used to initialize routines E04DGA, E04MFA, E04NCA, E04NFA, E04NKA, E04UCA, E04UFA, E04UGA and E04USA.

2 Specification

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SUBROUTINE E04WBF (RNAME, CWSAV, LCWSAV, LWSAV, LLWSAV, IWSAV, LIWSAV,
1 RWSAV, LRWSAV, IFAIL)
    INTEGER          LCWSAV, LLWSAV, IWSAV(LIWSAV), LIWSAV, LRWSAV, IFAIL
    double precision RWSAV(LRWSAV)
    LOGICAL          LWSAV(LLWSAV)
    CHARACTER*6      RNAME
    CHARACTER*80     CWSAV(LCWSAV)
  
```

3 Description

E04WBF initializes some or all of the arrays CWSAV, LWSAV, IWSAV and RWSAV for the routine specified by RNAME, and any associated option setting routines.

4 References

None.

5 Parameters

- 1: RNAME – CHARACTER*6 *Input*
On entry: the name of the routine to be initialized.
Constraint: RNAME must be a valid routine name.
- 2: CWSAV(LCWSAV) – CHARACTER*80 array *Communication Array*
 3: LCWSAV – INTEGER *Input*
On entry: the dimension of the array CWSAV as declared in the (sub)program from which E04WBF is called.
Constraint: see parameter RNAME for the minimum value of LCWSAV.
- 4: LWSAV(LLWSAV) – LOGICAL array *Communication Array*
 5: LLWSAV – INTEGER *Input*
On entry: the dimension of the array LWSAV as declared in the (sub)program from which E04WBF is called.
Constraint: see parameter RNAME for the minimum value of LLWSAV.

- 6: IWSAV(LIWSAV) – INTEGER array *Communication Array*
 7: LIWSAV – INTEGER *Input*

On entry: the dimension of the array IWSAV as declared in the (sub)program from which E04WBF is called.

Constraint: see parameter RNAME for the minimum value of LIWSAV.

- 8: RWSAV(LRWSAV) – *double precision* array *Communication Array*
 9: LRWSAV – INTEGER *Input*

On entry: the dimension of the array RWSAV as declared in the (sub)program from which E04WBF is called.

Constraint: see parameter RNAME for the minimum value of LRWSAV.

- 10: IFAIL – INTEGER *Input/Output*

On entry: IFAIL must be set to 0, –1 or 1. If you are unfamiliar with this parameter you 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, if you are 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 routine name supplied in RNAME is invalid

IFAIL = 2

One or more of the workspace array lengths LCWSAV, LLWSAV, LIWSAV or LRWSAV is too small.

7 Accuracy

Not applicable.

8 Further Comments

The time taken by E04WBF is negligible.

9 Example

The use of E04WBF is illustrated by the example programs of the routines listed in Section 1.
