

NAG Library Routine Document

X04BBF

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

X04BBF reads a single formatted record from an external file.

2 Specification

```
SUBROUTINE X04BBF(NIN, RECIN, IFAIL)
  INTEGER          NIN, IFAIL
  CHARACTER*(*)    RECIN
```

3 Description

X04BBF is used by NAG Library routines to read formatted records from an external file. All formatted input from an external file by NAG Library routines is performed by calls to X04BBF.

4 References

None.

5 Parameters

- 1: NIN – INTEGER *Input*
On entry: the Fortran unit number which identifies the file to be read from. If $NIN < 0$ (not a valid Fortran unit number), then no input occurs.
- 2: RECIN – CHARACTER*(*) *Output*
On exit: the first $LEN(RECIN)$ characters of the record read from unit NIN, padded with trailing blanks if the record was shorter than $LEN(RECIN)$.
- 3: 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 Section 3.3 in the Essential Introduction 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

An end-of-file was detected by the READ statement.

System-dependent errors may also occur if the unit specified by NIN is not connected to an external file, or if a read error occurs.

7 Accuracy

Not applicable.

8 Further Comments

None.

9 Example

This example program simply illustrates how a formatted record is read from the NAG Library, by first reading it into the character-string RECIN, used as an internal file, by X04BBF and then reading the internal file.

9.1 Program Text

```
*      X04BBF Example Program Text
*      Mark 14 Revised. NAG Copyright 1989.
*      .. Parameters ..
      INTEGER          NIN, NOUT
      PARAMETER        (NIN=5,NOUT=6)
*      .. Local Scalars ..
      DOUBLE PRECISION X
      INTEGER          I, IFAIL
      CHARACTER*40      RECIN
*      .. External Subroutines ..
      EXTERNAL          X04BBF
*      .. Executable Statements ..
      WRITE (NOUT,*) 'X04BBF Example Program Results'

*
*      Skip heading in data file
      CALL X04BBF(NIN,RECIN,IFAIL)
*
      WRITE (NOUT,*)

*
*      Read in values of I and X.
*
      CALL X04BBF(NIN,RECIN,IFAIL)
*
      READ (RECIN,99999) I, X
*
*      Write out I and X.
      WRITE (NOUT,99998) I, X
*
99999 FORMAT (I3,F7.3)
99998 FORMAT (1X,I5,F11.3)
      END
```

9.2 Program Data

X04BBF Example Program Data
20 2.996

9.3 Program Results

X04BBF Example Program Results
20 2.996
