

NAG Library Routine Document

E04RZF

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

E04RZF is a part of the NAG optimization modelling suite. It is used to deallocate the memory used within the problem handle and to destroy the handle itself.

2 Specification

```
SUBROUTINE E04RZF (HANDLE, IFAIL)
  INTEGER          IFAIL
  TYPE (C_PTR)     HANDLE
```

3 Description

Each problem handle initialized by E04RAF should be deallocated to avoid memory leaks. Therefore E04RZF should be called on all the handles which are no longer needed, typically after obtaining results from the solver. Please note that passing a handle which has not been initialized by E04RAF might cause unpredictable behaviour, including a crash of your program. See E04RAF for a generic description of the suite.

4 References

None.

5 Arguments

- 1: HANDLE – TYPE (C_PTR) *Input/Output*
On entry: the handle to the problem. It needs to be initialized by E04RAF and **must not** be changed before the call to E04RZF.
On exit: the handle is destroyed and set to 0.
- 2: IFAIL – INTEGER *Input/Output*
On entry: IFAIL must be set to 0, -1 or 1. If you are unfamiliar with this argument you should refer to Section 3.4 in How to Use the NAG Library and its Documentation for details.
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 argument, the recommended value is 0. **When the value -1 or 1 is used it is essential to test the value of IFAIL on exit.**
On exit: IFAIL = 0 unless the routine detects an error or a warning has been flagged (see Section 6).

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 supplied `HANDLE` does not define a valid handle to the data structure for the NAG optimization modelling suite. It has not been initialized by E04RAF or it has been corrupted.

$IFAIL = -99$

An unexpected error has been triggered by this routine. Please contact NAG.

See Section 3.9 in *How to Use the NAG Library and its Documentation* for further information.

$IFAIL = -399$

Your licence key may have expired or may not have been installed correctly.

See Section 3.8 in *How to Use the NAG Library and its Documentation* for further information.

$IFAIL = -999$

Dynamic memory allocation failed.

See Section 3.7 in *How to Use the NAG Library and its Documentation* for further information.

7 Accuracy

Not applicable.

8 Parallelism and Performance

E04RZF is not threaded in any implementation.

9 Further Comments

None.

10 Example

See Section 10 in E04RAF for links to all examples in the suite.
