

NAG Library Routine Document

F06EDF (DSCAL)

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

F06EDF (DSCAL) scales a real vector by a real scalar.

2 Specification

```
SUBROUTINE F06EDF(N, ALPHA, X, INCX)
  INTEGER          N, INCX
  double precision ALPHA, X(*)
```

The routine may be called by its BLAS name ***dscal***.

3 Description

F06EDF (DSCAL) performs the operation

$$x \leftarrow \alpha x$$

where x is an n element real vector, and α is a real scalar.

4 References

None.

5 Parameters

- | | | |
|----|--|---------------------|
| 1: | N – INTEGER | <i>Input</i> |
| | <i>On entry:</i> n , the number of elements in x . | |
| 2: | ALPHA – <i>double precision</i> | <i>Input</i> |
| | <i>On entry:</i> the scalar α . | |
| 3: | X(*) – <i>double precision</i> array | <i>Input/Output</i> |
| | Note: the dimension of the array X must be at least $\max(1, 1 + (N - 1) \text{INCX})$. | |
| | <i>On entry:</i> the incremented array X must contain the n element vector x . | |
| | <i>On exit:</i> the vector αx . | |
| 4: | INCX – INTEGER | <i>Input</i> |
| | <i>On entry:</i> the increment in the subscripts of X between successive elements of x . | |
| | <i>Constraint:</i> $\text{INCX} > 0$. | |

6 Error Indicators and Warnings

None.

7 Accuracy

Not applicable.

8 Further Comments

None.

9 Example

None.
