

# NAG Fortran 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) performs the operation

$$x \leftarrow \alpha x$$

where  $x$  is an  $n$  element real vector, and  $\alpha$  is 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

None.

### 4 References

None.

### 5 Parameters

- |    |  |                     |
|----|--|---------------------|
| 1: | N – INTEGER  | <i>Input</i>        |
|    | <i>On entry:</i> $n$ , the number of elements in $x$ .                                     |                     |
| 2: | ALPHA – <b>double precision</b>  | <i>Input</i>        |
|    | <i>On entry:</i> the scalar $\alpha$ .   |                     |
| 3: | X(*) – <b>double precision</b> array   | <i>Input/Output</i> |
|    | <i>On entry:</i> the vector $x$ .  |                     |
|    | <i>On exit:</i> the vector $\alpha x$ .  |                     |
| 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> INCX > 0.   |                     |

### 6 Error Indicators and Warnings

None.