

NAG Library Routine Document

F06JDF (ZDSCAL)

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

F06JDF (ZDSCAL) scales a complex vector by a real scalar.

2 Specification

```
SUBROUTINE F06JDF (N, ALPHA, X, INCX)
  INTEGER          N, INCX
  double precision ALPHA
  complex*16      X(*)
```

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

3 Description

F06JDF (ZDSCAL) performs the operation

$$x \leftarrow \alpha x$$

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

4 References

None.

5 Parameters

- 1: N – INTEGER *Input*
On entry: n , the number of elements in x .
- 2: ALPHA – ***double precision*** *Input*
On entry: the scalar α .
- 3: X(*) – ***complex*16*** array *Input/Output*
Note: the dimension of the array X must be at least $1 + (N - 1)|\text{INCX}|$.
On entry: the incremented array X must contain the n element vector x .
On exit: the vector αx .
- 4: INCX – INTEGER *Input*
On entry: the increment in the subscripts of X between successive elements of x .
Constraint: $\text{INCX} > 0$.

6 Error Indicators and Warnings

None.

7 Accuracy

Not applicable.

8 Further Comments

None.

9 Example

None.
