

# NAG Fortran Library Routine Document

## F06EAF (DDOT)

**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

F06EAF (DDOT) returns, via the function name, the value of the scalar product

$$x^T y$$

where  $x$  and  $y$  are  $n$  element real vectors.

### 2 Specification

```
double precision FUNCTION F06EAF (N, X, INCX, Y, INCY)
      INTEGER          N, INCX, INCY
      double precision X(*), Y(*)
```

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

### 3 Description

None.

### 4 References

None.

### 5 Parameters

- |    |  |              |
|----|--|--------------|
| 1: | N – INTEGER  | <i>Input</i> |
|    | <i>On entry:</i> $n$ , the number of elements in $x$ and $y$ .                             |              |
| 2: | X(*) – <i>double precision</i> array   | <i>Input</i> |
|    | <i>On entry:</i> the vector $x$ .  |              |
| 3: | INCX – INTEGER   | <i>Input</i> |
|    | <i>On entry:</i> the increment in the subscripts of X between successive elements of $x$ . |              |
| 4: | Y(*) – <i>double precision</i> array   | <i>Input</i> |
|    | <i>On entry:</i> the vector $y$ .  |              |
| 5: | INCY – INTEGER   | <i>Input</i> |
|    | <i>On entry:</i> the increment in the subscripts of Y between successive elements of $y$ . |              |

### 6 Error Indicators and Warnings

None.