

NAG 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) computes the scalar product of two 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

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.

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> |
| | Note: the dimension of the array X must be at least $1 + (N - 1) INCX $. | |
| | <i>On entry:</i> the incremented array X must contain the n element 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> |
| | Note: the dimension of the array Y must be at least $1 + (N - 1) INCX $. | |
| | <i>On entry:</i> the incremented array Y must contain the n element 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.

7 Accuracy

Not applicable.

8 Further Comments

None.

9 Example

None.
