

NAG Library Routine Document

F06TFF

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

F06TFF performs the matrix-copy operation

$$B \leftarrow A$$

where A and B are m by n complex general or trapezoidal matrices.

2 Specification

```
SUBROUTINE F06TFF (MATRIX, M, N, A, LDA, B, LDB)
INTEGER           M, N, LDA, LDB
COMPLEX (KIND=nag_wp) A(LDA,*), B(LDB,*)
CHARACTER(1)     MATRIX
```

3 Description

None.

4 References

None.

5 Arguments

- | | | |
|----|---|--------------|
| 1: | MATRIX – CHARACTER(1)
<i>On entry:</i> the matrix type.
MATRIX = 'G'
General matrix.
MATRIX = 'U'
Upper trapezoidal matrix (upper triangular if $m = n$).
MATRIX = 'L'
Lower trapezoidal matrix (lower triangular if $m = n$).
<i>Constraint:</i> MATRIX = 'G', 'U' or 'L'. | <i>Input</i> |
| 2: | M – INTEGER
<i>On entry:</i> m , the number of rows of the matrices A and B .
<i>Constraint:</i> $M \geq 0$. | <i>Input</i> |
| 3: | N – INTEGER
<i>On entry:</i> n , the number of columns of the matrices A and B .
<i>Constraint:</i> $N \geq 0$. | <i>Input</i> |

4: A(LDA,*) – COMPLEX (KIND=nag_wp) array Input

Note: the second dimension of the array A must be at least N.

On entry: the m by n general or trapezoidal matrix A .

If MATRIX = 'U', A is upper trapezoidal and the elements of the array below the diagonal are not referenced.

If MATRIX = 'L', A is lower trapezoidal and the elements of the array above the diagonal are not referenced.

5: LDA – INTEGER Input

On entry: the first dimension of the array A as declared in the (sub)program from which F06TFF is called.

Constraint: $LDA \geq \max(1, M)$.

6: B(LDB,*) – COMPLEX (KIND=nag_wp) array Output

Note: the second dimension of the array B must be at least N.

On exit: the m by n general or trapezoidal matrix B .

If MATRIX = 'U', B is upper trapezoidal and the elements of the array below the diagonal are not referenced.

If MATRIX = 'L', B is lower trapezoidal and the elements of the array above the diagonal are not referenced.

7: LDB – INTEGER Input

On entry: the first dimension of the array B as declared in the (sub)program from which F06TFF is called.

Constraint: $LDB \geq \max(1, M)$.

6 Error Indicators and Warnings

None.

7 Accuracy

Not applicable.

8 Parallelism and Performance

F06TFF is not threaded in any implementation.

9 Further Comments

None.

10 Example

None.
