

# NAG Library Routine Document

## F06DBF

**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

F06DBF broadcasts an integer scalar into an integer vector.

### 2 Specification

```
SUBROUTINE F06DBF (N, CON, X, INCX)
  INTEGER N, CON, X(*), INCX
```

### 3 Description

F06DBF performs the operation

$$x \leftarrow (\alpha, \alpha, \dots, \alpha)^T,$$

where  $x$  is an  $n$ -element integer vector scattered with stride INCX.

### 4 References

None.

### 5 Arguments

- |    |  |               |
|----|--|---------------|
| 1: | N – INTEGER<br><i>On entry:</i> $n$ , the number of elements in $x$ .  | <i>Input</i>  |
| 2: | CON – INTEGER<br><i>On entry:</i> the scalar $\alpha$ .  | <i>Input</i>  |
| 3: | X(*) – INTEGER array<br><b>Note:</b> the dimension of the array X must be at least $\max(1, 1 + (N - 1) \times \text{INCX})$ .<br><i>On exit:</i> the vector $x$ . $x_i$ will be stored in $X(1 + (i - 1) \times \text{INCX})$ , for $i = 1, 2, \dots, N$ .<br>Intermediate elements of X are unchanged. | <i>Output</i> |
| 4: | INCX – INTEGER<br><i>On entry:</i> the increment in the subscripts of X between successive elements of $x$ .<br><i>Constraint:</i> $\text{INCX} > 0$ .   | <i>Input</i>  |

### 6 Error Indicators and Warnings

None.

### 7 Accuracy

Not applicable.

## **8 Parallelism and Performance**

F06DBF is not threaded in any implementation.

## **9 Further Comments**

None.

## **10 Example**

None.

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