

NAG C Library Function Document

nag_dload (f16fbc)

1 Purpose

nag_dload (f16fbc) broadcasts a scalar into a real vector.

2 Specification

```
void nag_dload (Integer n, double alpha, double x[], Integer incx, NagError *fail)
```

3 Description

nag_dload (f16fbc) performs the operation

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

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

4 References

None.

5 Parameters

- | | | |
|----|-------------------------------------------------------------------------------------------------------------------------------|---------------------|
| 1: | n – Integer | <i>Input</i> |
| | <i>On entry:</i> n , the number of elements in x . | |
| | <i>Constraint:</i> $n \geq 0$. | |
| 2: | alpha – double | <i>Input</i> |
| | <i>On entry:</i> the scalar α . | |
| 3: | x [<i>dim</i>] – double | <i>Output</i> |
| | Note: the dimension, <i>dim</i> , of the array x must be at least $1 + (n - 1) \mathbf{incx} $. | |
| | <i>On exit:</i> the scalar α scattered with a stride of incx . Intermediate elements of x are unchanged. | |
| 4: | incx – Integer | <i>Input</i> |
| | <i>On entry:</i> the increment in the subscripts of x between successive elements of x . | |
| | <i>Constraint:</i> $\mathbf{incx} \neq 0$. | |
| 5: | fail – NagError * | <i>Input/Output</i> |
| | The NAG error parameter (see the Essential Introduction). | |

6 Error Indicators and Warnings

NE_INT

On entry, **n** = $\langle value \rangle$.

Constraint: $n \geq 0$.

On entry, **incx** = $\langle value \rangle$.

Constraint: $\mathbf{incx} \neq 0$.

NE_BAD_PARAM

On entry, parameter *<value>* had an illegal value.

7 Accuracy

Not applicable.

8 Further Comments

None.

9 Example

See Section 9 of the document for nag_regsn_mult_linear_add_var (g02dec).
