NAG C Library Function Document

nag_zload (f16hbc)

1 Purpose
nag_zload (f16hbc) broadcasts a scalar into a complex vector.

2 Specification

```c
void nag_zload (Integer n, Complex alpha, Complex x[], Integer incx, NagError *fail)
```

3 Description
nag_zload (f16hbc) performs the operation

\[ x \leftarrow (\alpha, \alpha, \ldots, \alpha)^T, \]

where \( x \) is an \( n \) element complex vector and \( \alpha \) is a complex scalar.

4 References
None.

5 Parameters

1: \( \mathbf{n} \) – Integer
   
   On entry: \( n \), the number of elements in \( x \).
   
   Constraint: \( n \geq 0 \).

2: \( \mathbf{alpha} \) – Complex
   
   On entry: the scalar \( \alpha \).

3: \( \mathbf{x}[\mathbf{dim}] \) – Complex
   
   Note: the dimension, \( \mathbf{dim} \), of the array \( \mathbf{x} \) must be at least \( 1 + (n - 1) |\mathbf{incx}| \).
   
   On exit: the scalar \( \alpha \) scattered with a stride of \( \mathbf{incx} \). Intermediate elements of \( \mathbf{x} \) are unchanged.

4: \( \mathbf{incx} \) – Integer
   
   On entry: the increment in the subscripts of \( \mathbf{x} \) between successive elements of \( x \).
   
   Constraint: \( \mathbf{incx} \neq 0 \).

5: \( \mathbf{fail} \) – NagError *
   
   The NAG error parameter (see the Essential Introduction).

6 Error Indicators and Warnings

**NE_INT**

On entry, \( \mathbf{n} = \langle \text{value} \rangle \).

Constraint: \( \mathbf{n} \geq 0 \).

On entry, \( \mathbf{incx} = \langle \text{value} \rangle \).

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

None.