NAG C Library Function Document

nag_zload (f16hbc)

1   Purpose

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

2   Specification

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 α is a complex scalar.

4   References

None.

5   Parameters

1:    **n** – Integer   *Input*

   On entry: n, the number of elements in x.

   Constraint: $\mathbf{n} \geq 0$.

2:    **alpha** – Complex   *Input*

   On entry: the scalar α.

3:    **x**[dim] – Complex   *Output*

   Note: the dimension, dim, of the array **x** must be at least $1 + (\mathbf{n} - 1)|\mathbf{incx}|$.

   On exit: the scalar α scattered with a stride of **incx**. Intermediate elements of **x** are unchanged.

4:    **incx** – Integer   *Input*

   On entry: the increment in the subscripts of **x** between successive elements of x.

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

5:    **fail** – NagError *   *Input/Output*

   The NAG error parameter (see the Essential Introduction).

6   Error Indicators and Warnings

NE_INT

   On entry, $\mathbf{n} = \langle value \rangle$.
   Constraint: $\mathbf{n} \geq 0$.

   On entry, $\mathbf{incx} = \langle value \rangle$.
   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

None.