

NAG C Library Function Document

nag_drscl (f06fec)

1 Purpose

nag_drscl (f06fec) scales the entries of a real vector by the reciprocal of a real, non-zero scalar.

2 Specification

```
#include <nag.h>
#include <nagf06.h>
```

```
void nag_drscl (Integer n, double alpha, double x[], Integer incx)
```

3 Description

nag_drscl (f06fec) performs the operation

$$x \leftarrow \frac{1}{\alpha}x$$

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

4 References

None.

5 Arguments

- | | | |
|----|---|---------------------|
| 1: | n – Integer | <i>Input</i> |
| | <i>On entry:</i> n , the number of elements in x . | |
| 2: | alpha – double | <i>Input</i> |
| | <i>On entry:</i> the scalar α . | |
| | <i>Constraint:</i> alpha $\neq 0$. | |
| 3: | x [<i>dim</i>] – double | <i>Input/Output</i> |
| | Note: the dimension, <i>dim</i> , of the array x must be at least $1 + (\mathbf{n} - 1)\mathbf{incx}$. | |
| | <i>On entry:</i> the vector x . | |
| | <i>On exit:</i> the vector $\frac{1}{\alpha}x$. | |
| 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> incx > 0 . | |

6 Error Indicators and Warnings

None.