Utility: nagdmc_rng

Purpose

nagdmc_rng returns a random number between zero and one.

Declaration

```
#include <nagdmc.h>
double nagdmc_rng(long seed[]);
```

Parameters

1:    **seed[5]** – `long`   *Input/Output*

On entry: the seed for the random number generator. For the first call this should be set using **nagdmc_srs**; if it is not set a default value will be used. For subsequent calls the value returned by the previous call must be used.

On exit: the updated seed.

Notation

None.

Description

This function returns the next pseudo-random number from a uniform $(0, 1)$ generator.

The current state (or seed) of each generator used is saved internally in the code. Initial states can be set by default or by the user (thus giving a repeatable sequence).

References and Further Reading

Knuth D E (1973) *The Art of Computer Programming (Volume 2)* (2nd Edition) Addison-Wesley.

See Also

nagdmc_srs   sets the initial state of the random number generator.