

Version 2.0: Written by Gregor N. Purdy.
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StandardEngine

INHERITS FROM

RandomEngine

CLASS DESCRIPTION

The StandardEngine class is a wrapper for the standard C/UNIX rand() and srand() functions supplied on the NeXT computer. An instance of the StandardEngine class can be a source of pseudorandom bits usable by the Random class.

Note that rand() generates only 31 pseudo-random bits per call and the Random class expects multiples of 8 bits. Rather than throw away 7 of the 31 bits (to leave 24), StandardEngine generates 32 words (each with 31 pseudo-random bits). One of those words is used as a source of high-order bits for the other 31. So, StandardEngine generates a unit of 31 words or 124 bytes at a shot.

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METHOD TYPES

Creating and freeing instances

+ alloc
- free

Generation of random bits - makeRandom:
+ unit

Archiving

- read:
- write:

CLASS METHODS

alloc

+ **alloc**

Returns a new uninitialized instance.

unit

+ (int)**unit**

Returns the number of bytes each invocation of **makeRandom:** will produce. For StandardEngine, this is 124.

INSTANCE METHODS

free

- **free**

Frees the memory occupied by the StandardEngine instance and returns **nil**.

makeRandom:

- **makeRandom:**(uchar *)*storage*

Makes 32 calls to rand(), and stuffs the results into *storage* (note that only 31 words of pseudo-random bits are generated).

read:

- **read:**(NXTypedStream *)*stream*

Unarchives a StandardEngine from *stream*.

See also: - **write:**

write:

- **write:**(NXTypedStream *)*stream*

Archives a StandardEngine to *stream*.

See also: - **read:**