libsfmt607 Overview

PlayStation®Vita Programmer Tool Runtime Library Release 3.50

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1 Library Overview

Overview

The SIMD-oriented Fast Mersenne Twister library (libsfmt607) is used for generating pseudo random numbers in conformance with SMFT607.

Related Files

The following files are required to use libsfmt607.

Filename	Description
libsfmt607.h	Header file
libSceSfmt607.a	Static link library file
libSceSfmt607_stub.a	Stub library file
libSceSfmt607_stub_weak.a	weak import stub library file
libsfmt607.suprx	PRX module file

2 Using the Library

Basic Usage Procedure

(1) Initialize random number sequence

Call `sceSfmt607InitGenRand()` to initialize the random number sequence.

```
SceSfmt607Context ctx;

sceSfmt607InitGenRand(&ctx, seed);
```

A 32-bit seed value is passed in the *`seed`* argument. This value is used to initialize the random number sequence and initialize the state of the `SceSfmt607Context` structure. Subsequently, pseudo random numbers can be obtained by calling the `sceSfmt607GenRand32()` function.

(2) Obtain random number

The `sceSfmt607GenRand32()` function is used to generate a pseudo random number.

```
res = sceSfmt607GenRand32(&ctx);
```

When the `sceSfmt607GenRand32()` function is called, a pointer to the `SceSfmt607Context` structure that was previously initialized by the `sceSfmt607InitGenRand()` function, is passed as the argument. Since libsfmt607 does not maintain any state internally, an arbitrary number of random number sequences can be generated by preparing multiple `SceSfmt607Context` structures.

Saving and Getting a Random Number Sequence

If the contents of the `SceSfmt607Context` structure are saved in advance, the random number sequence can be replayed later.