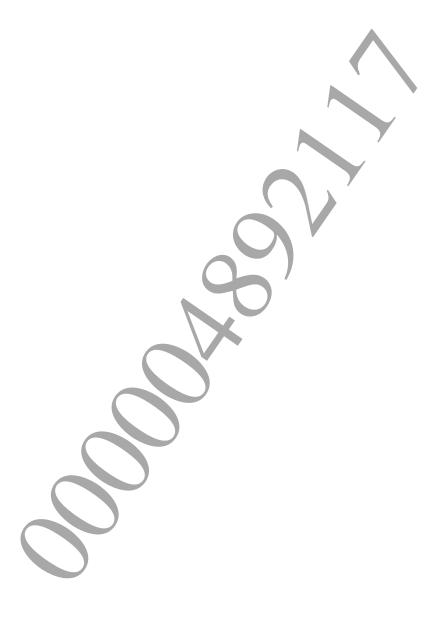


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1 Library Overview

Overview

The SIMD-oriented Fast Mersenne Twister library (libsfmt4253) is used for generating pseudo random numbers in conformance with SMFT4253.

Related Files

The following files are required to use libsfmt4253.

Filename	Description	
libsfmt4253.h	Header file	
libSceSfmt4253.a	Static link library file	
libSceSfmt4253_stub.a	Stub library file	
libSceSfmt4253_stub_weak.a	weak import stub library file	
libsfmt4253.suprx	PRX module file	Y

2 Using the Library

Basic Usage Procedure

(1) Initialize random number sequence

Call sceSfmt4253InitGenRand() to initialize the random number sequence.

```
SceSfmt4253Context ctx;
sceSfmt4253InitGenRand(&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 SceSfmt4253Context structure. Subsequently, pseudo random numbers can be obtained by calling the SceSfmt4253GenRand32 () function.

(2) Obtain random number

The sceSfmt4253GenRand32() function is used to generate a pseudo random number.

```
res = sceSfmt4253GenRand32(&ctx);
```

When the sceSfmt4253GenRand32() function is called, a pointer to the SceSfmt4253Context structure that was previously initialized by the sceSfmt4253InitGenRand() function, is passed as the argument. Since libsfmt4253 does not maintain any state internally, an arbitrary number of random number sequences can be generated by preparing multiple SceSfmt4253Context structures.

Saving and Getting a Random Number Sequence

If the contents of the SceSfmt4253Context structure are saved in advance, the random number sequence can be replayed later.