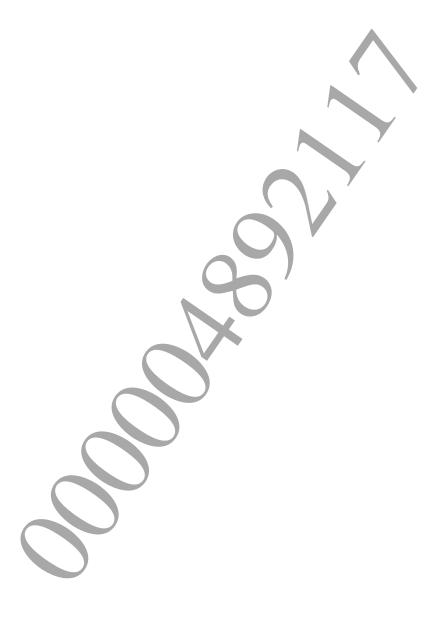


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1 Library Overview

Overview

The SIMD-oriented Fast Mersenne Twister library (libsfmt2281) is used for generating pseudo random numbers in conformance with SMFT2281.

Related Files

The following files are required to use libsfmt2281

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Filename	Description	
libsfmt2281.h	Header file	
libSceSfmt2281.a	Static link library file	
libSceSfmt2281_stub.a	Stub library file	T N
libSceSfmt2281_stub_weak.a	weak import stub library file	
libsfmt2281.suprx	PRX module file	Y

2 Using the Library

Basic Usage Procedure

(1) Initialize random number sequence

Call sceSfmt2281InitGenRand() to initialize the random number sequence.

```
SceSfmt2281Context ctx;
sceSfmt2281InitGenRand(&ctx, seed);
```

A 32-bit seed value is passed in the <code>seed</code> argument. This value is used to initialize the random number sequence and initialize the state of the <code>SceSfmt2281Context</code> structure. Subsequently, pseudo random numbers can be obtained by calling the <code>sceSfmt2281GenRand32()</code> function.

(2) Obtain random number

The sceSfmt2281GenRand32() function is used to generate a pseudo random number.

```
res = sceSfmt2281GenRand32(&ctx);
```

When the sceSfmt2281GenRand32() function is called, a pointer to the SceSfmt2281Context structure that was previously initialized by the sceSfmt2281InitGenRand() function, is passed as the argument. Since libsfmt2281 does not maintain any state internally, an arbitrary number of random number sequences can be generated by preparing multiple SceSfmt2281Context structures.

Saving and Getting a Random Number Sequence

If the contents of the SceSfmt2281Context structure are saved in advance, the random number sequence can be replayed later.