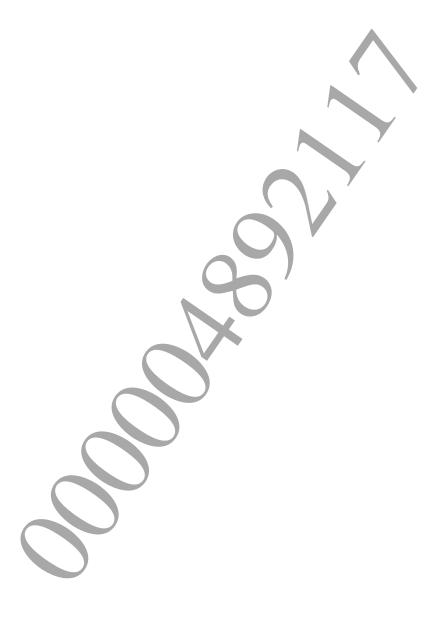


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1 Library Overview

Overview

The SIMD-oriented Fast Mersenne Twister library (libsfmt216091) is used for generating pseudo random numbers in conformance with SMFT216091.

Related Files

The following files are required to use libsfmt216091.

| Description |
|-------------------------------|
| Header file |
| Static link library file |
| Stub library file |
| weak import stub library file |
| PRX module file |
| |



2 Using the Library

Basic Usage Procedure

(1) Initialize random number sequence

Call sceSfmt216091InitGenRand() to initialize the random number sequence.

```
SceSfmt216091Context ctx;
sceSfmt216091InitGenRand(&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>SceSfmt216091Context</code> structure. Subsequently, pseudo random numbers can be obtained by calling the <code>sceSfmt216091GenRand32()</code> function.

(2) Obtain random number

The sceSfmt216091GenRand32() function is used to generate a pseudo random number.

```
res = sceSfmt216091GenRand32(&ctx);
```

When the sceSfmt216091GenRand32() function is called, a pointer to the SceSfmt216091Context structure that was previously initialized by the sceSfmt216091InitGenRand() function, is passed as the argument. Since libsfmt216091 does not maintain any state internally, an arbitrary number of random number sequences can be generated by preparing multiple SceSfmt216091Context structures.

Saving and Getting a Random Number Sequence

If the contents of the SceSfmt216091Context structure are saved in advance, the random number sequence can be replayed later.