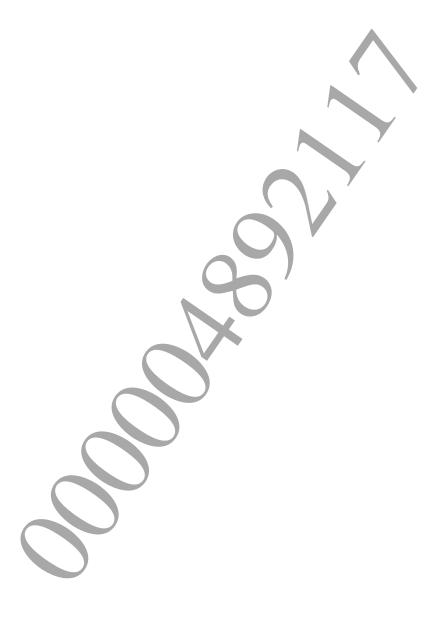


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# 1 Library Overview

# 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.

ader file tic link library file
1. 1:1 (:1 -
b library file
ak import stub library file
X module file
ć



# 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.