NAME

drand48_r, erand48_r, lrand48_r, nrand48_r, mrand48_r, jrand48_r, srand48_r, seed48_r, lcong48_r − generate uniformly distributed pseudo-random numbers reentrantly

LIBRARY

Standard C library (*libc*, *−lc*)

SYNOPSIS

```
#include <stdlib.h>

int drand48_r(struct drand48_data *restrict buffer,
              double *restrict result);
int erand48_r(unsigned short xsubi[3],
              struct drand48_data *restrict buffer,
              double *restrict result);

int lrand48_r(struct drand48_data *restrict buffer,
              long *restrict result);
int nrand48_r(unsigned short xsubi[3],
              struct drand48_data *restrict buffer,
              long *restrict result);

int mrand48_r(struct drand48_data *restrict buffer,
              long *restrict result);
int jrand48_r(unsigned short xsubi[3],
              struct drand48_data *restrict buffer,
              long *restrict result);

int srand48_r(long int seedval, struct drand48_data *buffer);
int seed48_r(unsigned short seed16v[3], struct drand48_data *buffer);
int lcong48_r(unsigned short param[7], struct drand48_data *buffer);
```

Feature Test Macro Requirements for glibc (see **feature_test_macros**(7)):

All functions shown above:

```
/* glibc >= 2.19: */ _DEFAULT_SOURCE
   || /* glibc <= 2.19: */ _SVID_SOURCE || _BSD_SOURCE
```

DESCRIPTION

These functions are the reentrant analogs of the functions described in **drand48**(3). Instead of modifying the global random generator state, they use the supplied data *buffer*.

Before the first use, this struct must be initialized, for example, by filling it with zeros, or by calling one of the functions **srand48_r**(), **seed48_r**(), or **lcong48_r**().

RETURN VALUE

The return value is 0.

ATTRIBUTES

For an explanation of the terms used in this section, see **attributes**(7).

Interface	Attribute	Value
drand48_r(), **erand48_r**(), **lrand48_r**(), **nrand48_r**(), **mrand48_r**(), **jrand48_r**(), **srand48_r**(), **seed48_r**(), **lcong48_r**()	Thread safety	MT-Safe race:buffer

STANDARDS

These functions are GNU extensions and are not portable.

SEE ALSO

drand48(3), **rand**(3), **random**(3)