



The Open Group Base Specifications Issue 7, 2018 edition
 IEEE Std 1003.1-2017 (Revision of IEEE Std 1003.1-2008)
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NAME

sys/shm.h – XSI shared memory facility

SYNOPSIS

```
[XSI]  #include <sys/shm.h> 
```

DESCRIPTION

The `<sys/shm.h>` header shall define the following symbolic constants:

```
SHM_RDONLY      Attach read-only (else read-write).
SHM_RND         Round attach address to SHMLBA.
SHMLBA         Segment low boundary address multiple.
```

The `<sys/shm.h>` header shall define the following data types through **typedef**:

```
shmatt_t
    Unsigned integer used for the number of current attaches that must be able to store
    values at least as large as a type unsigned short.
```

The `<sys/shm.h>` header shall define the **shmid_ds** structure, which shall include the following members:

```
struct ipc_perm shm_perm  Operation permission structure.
size_t          shm_segsz Size of segment in bytes.
pid_t           shm_lpid   Process ID of last shared memory operation.
pid_t           shm_cpid   Process ID of creator.
shmatt_t        shm_nattch Number of current attaches.
time_t          shm_atime  Time of last shmat
().
time_t          shm_dtime  Time of last shmdt
().
time_t          shm_ctime  Time of last change by shmctl
().
```

The `<sys/shm.h>` header shall define the **pid_t**, **size_t**, and **time_t** types as described in [<sys/types.h>](#).

The following shall be declared as functions and may also be defined as macros. Function prototypes shall be provided.

```
void *shmat(int, const void *, int);
int  shmctl(int, int, struct shmid_ds *);
int  shmdt(const void *);
int  shmget(key_t, size_t, int);
```

In addition, the `<sys/shm.h>` header shall include the [<sys/ipc.h>](#) header.

The following sections are informative.

APPLICATION USAGE

None.

RATIONALE

None.

FUTURE DIRECTIONS

None.

SEE ALSO

[<sys/ipc.h>](#), [<sys/types.h>](#)

XSH [shmat](#), [shmctl](#), [shmdt](#), [shmget](#)

CHANGE HISTORY

First released in Issue 2. Derived from System V Release 2.0.

Issue 5

The type of `shm_segsz` is changed from `int` to `size_t`.

Issue 7

Austin Group Interpretation 1003.1-2001 #179 is applied.

This reference page is clarified with respect to macros and symbolic constants.

End of informative text.

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