

Op:shm.h

sys/shm.h - XSI shared memory facility

```
#include <sys/shm.h>
```

Contents [1 DESCRIPTION](#) [2 APPLICATION USAGE](#) [3 RATIONALE](#) [4 FUTURE DIRECTIONS](#) [5 RELATED](#)
[6 COPYRIGHT](#) [7 CATEGORY](#)

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.

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

SHMLBA Segment low boundary address multiple.

The following data types shall be defined 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 **shmid_ds** structure shall contain 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.

<code>pid_t</code>	<code>shm_cpid</code>	Process ID of creator.
<code>shmatt_t</code>	<code>shm_nattch</code>	Number of current attaches.
<code>time_t</code>	<code>shm_atime</code>	Time of last <code>shmat</code>
<code>()</code>		
<code>time_t</code>	<code>shm_dtime</code>	Time of last <code>shmdt</code>
<code>()</code>		
<code>time_t</code>	<code>shm_ctime</code>	Time of last change by <code>shmctl</code>
<code>()</code>		

The `pid_t`, `time_t`, `key_t`, and `size_t` types shall be defined 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, all of the symbols from `<sys/ipc.h>` shall be defined when this header is included.

The following sections are informative.

APPLICATION USAGE

None.

RATIONALE

None.

FUTURE DIRECTIONS

None.

RELATED

`<sys/ipc.h>` , `<sys/types.h>` , the System Interfaces volume of IEEE Std 1003.1-2001, `shmat()`, `shmctl()`, `shmdt()`, `shmget()`

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