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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