



Red Hat Enterprise Linux Release 9.2 Manual Pages on 'svipc.7' command

\$ man svipc.7

SVIPC(7) Linux Programmer's Manual SVIPC(7)

NAME

sysvipc - System V interprocess communication mechanisms

DESCRIPTION

System V IPC is the name given to three interprocess communication mechanisms that are widely available on UNIX systems: message queues, semaphore, and shared memory.

Message queues

System V message queues allow data to be exchanged in units called messages. Each messages can have an associated priority, POSIX message queues provide an alternative API for achieving the same result; see mq_overview(7).

The System V message queue API consists of the following system calls:

msgget(2)

Create a new message queue or obtain the ID of an existing message queue. This call returns an identifier that is used in the remaining APIs.

msgsnd(2)

Add a message to a queue.

msgrcv(2)

Remove a message from a queue.

msgctl(2)

Perform various control operations on a queue, including delete

tion.

Semaphore sets

System V semaphores allow processes to synchronize their actions. System V semaphores are allocated in groups called sets; each semaphore in a set is a counting semaphore. POSIX semaphores provide an alternative API for achieving the same result; see `sem_overview(7)`.

The System V semaphore API consists of the following system calls:

`semget(2)`

Create a new set or obtain the ID of an existing set. This call returns an identifier that is used in the remaining APIs.

`semop(2)`

Perform operations on the semaphores in a set.

`semctl(2)`

Perform various control operations on a set, including deletion.

Shared memory segments

System V shared memory allows processes to share a region of memory (a "segment"). POSIX shared memory is an alternative API for achieving the same result; see `shm_overview(7)`.

The System V shared memory API consists of the following system calls:

`shmget(2)`

Create a new segment or obtain the ID of an existing segment. This call returns an identifier that is used in the remaining APIs.

`shmat(2)`

Attach an existing shared memory object into the calling process's address space.

`shmdt(2)`

Detach a segment from the calling process's address space.

`shmctl(2)`

Perform various control operations on a segment, including deletion.

IPC namespaces

For a discussion of the interaction of System V IPC objects and IPC

namespaces, see ipc_namespaces(7).

SEE ALSO

ipcmk(1), ipcrm(1), ipcs(1), lsipc(1), ipc(2), msgctl(2), msgget(2),
msggrcv(2), msgsnd(2), semctl(2), semget(2), semop(2), shmat(2), shm?
ctl(2), shmdt(2), shmget(2), ftok(3), ipc_namespaces(7)

COLOPHON

This page is part of release 5.10 of the Linux man-pages project. A
description of the project, information about reporting bugs, and the
latest version of this page, can be found at
<https://www.kernel.org/doc/man-pages/>.

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