

Re: Heap allocation

Source: <http://unix.derkeiler.com/Newsgroups/comp.unix.programmer/2004-09/0059.html>

From: SM Ryan (wyrmwif_at_tango-sierra-oscar-foxtrot-tango.fake.org)

Date: 09/01/04

Date: Wed, 01 Sep 2004 19:06:18 -0000

arut@post.com (asm) wrote:

Hi All,

#

When a process allocates dynamic storage by making a call
to malloc(), does it get allocated from a per process heap
or a system wide heap?

Per process. Unless you do something like shmat or mmap, all your writable memory belongs to your process alone. And when you fork, the child process get its own copy of the heap, so the heaps of parent and child are separate and still only belongs to the one process.

System V shared memory and memory mapped files do allow different processes to share memory, but your process must make system calls to set up such regions—they won't happen behind your back.

(Read and execute only code loaded from the executable may be handled with something similar to mmap; but since nobody can write these pages, it is irrelevant whether they are shared or not.)

--

SM Ryan <http://www.rawbw.com/~wyrmwif/>

Death is the worry of the living. The dead, like myself,
only worry about decay and necrophiliacs.