

**NAME**

fork – spawn new process

**SYNOPSIS**

(fork = 2.)

**sys fork**

(new process return)

(old process return)

**fork()**

**DESCRIPTION**

*Fork* is the only way new processes are created. The new process's core image is a copy of that of the caller of *fork*. The only distinction is the return location and the fact that *r0* in the old (parent) process contains the process ID of the new (child) process. This process ID is used by *wait*.

From C, the returned value is 0 in the child process, non-zero in the parent process; however, a return of -1 indicates inability to create a new process.

**SEE ALSO**

wait(II), exec(II)

**DIAGNOSTICS**

The error bit (c-bit) is set in the old process if a new process could not be created because of lack of process space. From C, a return of -1 (not just negative) indicates an error.