

**NAME**

`dup` – duplicate an open file descriptor

**SYNOPSIS**

(`dup = 41.`)

(file descriptor in `r0`)

**`sys dup`**

**`dup(fildes)`**

**`int fildes;`**

**DESCRIPTION**

Given a file descriptor returned from an *open*, *pipe*, or *creat* call, *dup* will allocate another file descriptor synonymous with the original. The new file descriptor is returned in `r0`.

*Dup* is used more to reassign the value of file descriptors than to genuinely duplicate a file descriptor. Since the algorithm to allocate file descriptors returns the lowest available value, combinations of *dup* and *close* can be used to manipulate file descriptors in a general way. This is handy for manipulating standard input and/or standard output.

**SEE ALSO**

`creat(II)`, `open(II)`, `close(II)`, `pipe(II)`

**DIAGNOSTICS**

The error bit (c-bit) is set if: the given file descriptor is invalid; there are already too many open files. From C, a `-1` returned value indicates an error.