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# **lseek— xv6-CS450 man page**

Set the offset of a open file descriptor

SYNOPSIS

#include "types.h"

#include "user.h"

uint lseek(int fd, uint offset);

DESCRIPTION

lseek() takes a file descriptor and an offset and returns the files new offset. To do so, the file descriptor is used to obtain its file structure and integer value, the offset value is also obtained as a uint. After obtaining the information passed, the integer value of the file descriptor is checked and it’s offset is checked against the size of the file. Once the file descriptor and offset are verified it updates and returns the file's offset value.

RETURN VALUE

Changed file offset (uint) on success; error code on failure.

ERROR HANDLING

The return value of the lseek() system call can be checked to detect errors. If the returned value is -2, the file descriptor passed was either negative or larger than 16 (the max value). If the returned value is -3, The offset you are trying to set is either negative or larger than file size.

EXAMPLE

A call to lseek() with a file descriptor that is open and written with 512 bytes of data and offset of 100 bytes will return the new offset of 100 bytes. Trying to set a negative offset or one larger than 512 will throw an error. Also, passing a negative file descriptor or one that is larger than NOFILE (16) will throw an error.