## Rocky Enterprise Linux 9.2 Manual Pages on command 'ioperm.2'

***$ man ioperm.2***

IOPERM(2)                    Linux Programmer's Manual                    IOPERM(2)

NAME

    ioperm - set port input/output permissions

SYNOPSIS

    #include <sys/io.h> /* for glibc */

    int ioperm(unsigned long from, unsigned long num, int turn_on);

DESCRIPTION

    ioperm() sets the port access permission bits for the calling thread for num bits starting

    from port address from.  If turn_on is nonzero, then permission for the specified bits  is

    enabled;  otherwise  it  is  disabled.   If turn_on is nonzero, the calling thread must be

    privileged (CAP_SYS_RAWIO).

    Before Linux 2.6.8, only the first 0x3ff I/O ports could be specified in this manner.  For

    more  ports,  the  iopl(2) system call had to be used (with a level argument of 3).  Since

    Linux 2.6.8, 65,536 I/O ports can be specified.

    Permissions are inherited by the child created by fork(2) (but  see  NOTES).   Permissions

    are  preserved  across execve(2); this is useful for giving port access permissions to un?

    privileged programs.

    This call is mostly for the i386 architecture.  On many other architectures  it  does  not

    exist or will always return an error.

RETURN VALUE

    On success, zero is returned.  On error, -1 is returned, and errno is set appropriately.

ERRORS

    EINVAL Invalid values for from or num.

EIO    (on PowerPC) This call is not supported.

ENOMEM Out of memory.

EPERM  The calling thread has insufficient privilege.

## CONFORMING TO

ioperm() is Linux-specific and should not be used in programs intended to be portable.

## NOTES

The /proc/ioports file shows the I/O ports that are currently allocated on the system.

Before Linux 2.4, permissions were not inherited by a child created by fork(2).

Glibc has an ioperm() prototype both in <sys/io.h> and in <sys/perm.h>.  Avoid the latter, it is available on i386 only.

## SEE ALSO

iopl(2), outb(2), capabilities(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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