

NAME

`pciconfig_read`, `pciconfig_write`, `pciconfig_iobase` – pci device information handling

SYNOPSIS

```
#include <pci.h>

int pciconfig_read(unsigned long bus, unsigned long dfn,
                  unsigned long off, unsigned long len, void *buf);
int pciconfig_write(unsigned long bus, unsigned long dfn,
                   unsigned long off, unsigned long len, void *buf);
int pciconfig_iobase(long which, unsigned long bus,
                   unsigned long devfn);
```

DESCRIPTION

Most of the interaction with PCI devices is already handled by the kernel PCI layer, and thus these calls should not normally need to be accessed from user space.

pciconfig_read()

Reads to *buf* from device *dev* at offset *off* value.

pciconfig_write()

Writes from *buf* to device *dev* at offset *off* value.

pciconfig_iobase()

You pass it a bus/devfn pair and get a physical address for either the memory offset (for things like prep, this is 0xc0000000), the IO base for PIO cycles, or the ISA holes if any.

RETURN VALUE**pciconfig_read()**

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

pciconfig_write()

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

pciconfig_iobase()

Returns information on locations of various I/O regions in physical memory according to the *which* value. Values for *which* are: **IOBASE_BRIDGE_NUMBER**, **IOBASE_MEMORY**, **IOBASE_IO**, **IOBASE_ISA_IO**, **IOBASE_ISA_MEM**.

ERRORS**EINVAL**

len value is invalid. This does not apply to **pciconfig_iobase()**.

EIO I/O error.**ENODEV**

For **pciconfig_iobase()**, "hose" value is NULL. For the other calls, could not find a slot.

ENOSYS

The system has not implemented these calls (**CONFIG_PCI** not defined).

EOPNOTSUPP

This return value is valid only for **pciconfig_iobase()**. It is returned if the value for *which* is invalid.

EPERM

User does not have the **CAP_SYS_ADMIN** capability. This does not apply to **pciconfig_iobase()**.

CONFORMING TO

These calls are Linux-specific, available since Linux 2.0.26/2.1.11.

SEE ALSO

capabilities(7)

COLOPHON

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