

**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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