
Subject: [PATCH 1/2] ide: switch /proc/ide/ali to seq_file interface
Posted by [Alexey Dobriyan](#) on Wed, 02 Apr 2008 16:44:49 GMT
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[PATCH 1/2] ide: switch /proc/ide/ali to seq_file interface

Signed-off-by: Alexey Dobriyan <adobriyan@openvz.org>

drivers/ide/pci/alim15x3.c | 66

+++++-----

1 file changed, 39 insertions(+), 27 deletions(-)

--- a/drivers/ide/pci/alim15x3.c

+++ b/drivers/ide/pci/alim15x3.c

@@ -52,6 +52,7 @@ static struct pci_dev *isa_dev;

#if defined(DISPLAY_ALI_TIMINGS) && defined(CONFIG_IDE_PROC_FS)

#include <linux/stat.h>

#include <linux/proc_fs.h>

+#include <linux/seq_file.h>

static u8 ali_proc = 0;

@@ -96,11 +97,11 @@ static char *channel_status[8] = {

* anything else that will help with debugging
*/

-static int ali_get_info (char *buffer, char **addr, off_t offset, int count)

+static int proc_ide_ali_show(struct seq_file *m, void *v)

{
 unsigned long bibma;

 u8 reg53h, reg5xh, reg5yh, reg5xh1, reg5yh1, c0, c1, rev, tmp;

- char *q, *p = buffer;

+ char *q;

 /* fetch rev. */

 pci_read_config_byte(bmide_dev, 0x08, &rev);

@@ -120,52 +121,50 @@ static int ali_get_info (char *buffer, char **addr,
 off_t offset, int count)

 c0 = inb(bibma + 0x02);

 c1 = inb(bibma + 0x0a);

- p += sprintf(p,

- "\n Ali M15x3 Chipset.\n");

- p += sprintf(p,

- " -----\n");

+ seq_puts(m, "\n Ali M15x3 Chipset.\n");

+ seq_puts(m, " -----\n");

```

pci_read_config_byte(bmide_dev, 0x78, &reg53h);
- p += sprintf(p, "PCI Clock: %d.\n", reg53h);
+ seq_printf(m, "PCI Clock: %d.\n", reg53h);

pci_read_config_byte(bmide_dev, 0x53, &reg53h);
- p += sprintf(p,
+ seq_printf(m,
    "CD_ROM FIFO:%s, CD_ROM DMA:%s\n",
    (reg53h & 0x02) ? "Yes" : "No ",
    (reg53h & 0x01) ? "Yes" : "No ");
pci_read_config_byte(bmide_dev, 0x74, &reg53h);
- p += sprintf(p,
+ seq_printf(m,
    "FIFO Status: contains %d Words, runs%s%s\n\n",
    (reg53h & 0x3f),
    (reg53h & 0x40) ? " OVERWR" : "",
    (reg53h & 0x80) ? " OVERRD." : ".");

- p += sprintf(p,
+ seq_puts(m,
    "-----primary channel"
    "-----secondary channel"
    "-----\n\n");

pci_read_config_byte(bmide_dev, 0x09, &reg53h);
- p += sprintf(p,
+ seq_printf(m,
    "channel status:    %s"
    "                  %s\n",
    (reg53h & 0x20) ? "On " : "Off",
    (reg53h & 0x10) ? "On " : "Off");

- p += sprintf(p,
+ seq_printf(m,
    "both channels togh: %s"
    "                  %s\n",
    (c0&0x80) ? "No " : "Yes",
    (c1&0x80) ? "No " : "Yes");

pci_read_config_byte(bmide_dev, 0x76, &reg53h);
- p += sprintf(p,
+ seq_printf(m,
    "Channel state:    %s          %s\n",
    channel_status[reg53h & 0x07],
    channel_status[(reg53h & 0x70) >> 4]);

pci_read_config_byte(bmide_dev, 0x58, &reg5xh);
pci_read_config_byte(bmide_dev, 0x5c, &reg5yh);

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- p += sprintf(p,
+ seq_printf(m,
    "Add. Setup Timing:  %dT"
    "                %dT\n",
    (reg5xh & 0x07) ? (reg5xh & 0x07) : 8,
@@ -173,7 +172,7 @@ static int ali_get_info (char *buffer, char **addr, off_t
offset, int count)

    pci_read_config_byte(bmide_dev, 0x59, &reg5xh);
    pci_read_config_byte(bmide_dev, 0x5d, &reg5yh);
- p += sprintf(p,
+ seq_printf(m,
    "Command Act. Count:  %dT"
    "                %dT\n"
    "Command Rec. Count:  %dT"
@@ -183,10 +182,10 @@ static int ali_get_info (char *buffer, char **addr,
off_t offset, int count)
    (reg5xh & 0x0f) ? (reg5xh & 0x0f) : 16,
    (reg5yh & 0x0f) ? (reg5yh & 0x0f) : 16 );

- p += sprintf(p,
+ seq_puts(m,
    "-----drive0-----drive1"
    "-----drive0-----drive1-----\n\n");
- p += sprintf(p,
+ seq_printf(m,
    "DMA enabled:    %s        %s"
    "        %s        %s\n",
    (c0&0x20) ? "Yes" : "No ",
@@ -201,9 +200,9 @@ static int ali_get_info (char *buffer, char **addr, off_t
offset, int count)
    if (rev < 0xc1) {
        if ((rev == 0x20) &&
            (pci_read_config_byte(bmide_dev, 0x4f, &tmp), (tmp &= 0x20))) {
- p += sprintf(p, q, 8, 8, 8, 8);
+ seq_printf(m, q, 8, 8, 8, 8);
        } else {
- p += sprintf(p, q,
+ seq_printf(m, q,
            (reg5xh & 0x03) + 12,
            ((reg5xh & 0x30)>>4) + 12,
            (reg5yh & 0x03) + 12,
@@ -214,11 +213,11 @@ static int ali_get_info (char *buffer, char **addr,
off_t offset, int count)
    int t2 = (tmp = ((reg5xh & 0x30)>>4)) ? (tmp << 3) : 4;
    int t3 = (tmp = (reg5yh & 0x03)) ? (tmp << 3) : 4;
    int t4 = (tmp = ((reg5yh & 0x30)>>4)) ? (tmp << 3) : 4;
- p += sprintf(p, q, t1, t2, t3, t4);

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+ seq_printf(m, q, t1, t2, t3, t4);
}

#if 0
- p += sprintf(p,
+ seq_printf(m,
    "FIFO threshold:  %2d Words      %2d Words"
    "      %2d Words      %2d Words\n",
    (reg5xh & 0x03) + 12,
@@ -227,7 +226,7 @@ static int ali_get_info (char *buffer, char **addr, off_t
offset, int count)
    ((reg5yh & 0x30)>>4) + 12 );
#endif

- p += sprintf(p,
+ seq_printf(m,
    "FIFO mode:      %s      %s      %s      %s\n",
    fifo[((reg5xh & 0x0c) >> 2)],
    fifo[((reg5xh & 0xc0) >> 6)],
@@ -239,7 +238,7 @@ static int ali_get_info (char *buffer, char **addr, off_t
offset, int count)
    pci_read_config_byte(bmide_dev, 0x5e, &reg5yh);
    pci_read_config_byte(bmide_dev, 0x5f, &reg5yh1);

- p += sprintf(p,/*
+ seq_printf(m,/*
    "-----drive0-----drive1"
    "-----drive0-----drive1-----\n")*/
    "Dt RW act. Cnt   %2dT      %2dT"
@@ -255,13 +254,13 @@ static int ali_get_info (char *buffer, char **addr,
off_t offset, int count)
    (reg5yh & 0x0f) ? (reg5yh & 0x0f) : 16,
    (reg5yh1 & 0x0f) ? (reg5yh1 & 0x0f) : 16 );

- p += sprintf(p,
+ seq_puts(m,
    "-----UDMA Timings"
    "-----\n\n");

    pci_read_config_byte(bmide_dev, 0x56, &reg5xh);
    pci_read_config_byte(bmide_dev, 0x57, &reg5yh);
- p += sprintf(p,
+ seq_printf(m,
    "UDMA:      %s      %s"
    "      %s      %s\n"
    "UDMA timings:  %s      %s"
@@ -275,8 +274,8 @@ static int ali_get_info (char *buffer, char **addr, off_t
offset, int count)

```

```

    udmaT[reg5yh & 0x07],
    udmaT[(reg5yh & 0x70) >> 4] );

- return p-buffer; /* => must be less than 4k! */
+ return 0;
+}
+
+static int proc_ide_ali_open(struct inode *inode, struct file *file)
+{
+ return single_open(file, proc_ide_ali_show, NULL);
+}
+
+static const struct file_operations ide_ali_proc_fops = {
+ .owner = THIS_MODULE,
+ .open = proc_ide_ali_open,
+ .read = seq_read,
+ .llseek = seq_lseek,
+ .release = single_release,
+};
#ifdef /* defined(DISPLAY_ALI_TIMINGS) && defined(CONFIG_IDE_PROC_FS) */

/**
@@ -469,7 +481,7 @@ static unsigned int __devinit init_chipset_ali15x3 (struct
pci_dev *dev, const c
    if (!ali_proc) {
        ali_proc = 1;
        bmide_dev = dev;
- ide_pci_create_host_proc("ali", ali_get_info);
+ proc_create("ide/ali", 0, NULL, &ide_ali_proc_fops);
    }
#endif /* defined(DISPLAY_ALI_TIMINGS) && defined(CONFIG_IDE_PROC_FS) */

```
