

Sound Blaster 16X Vibra addendum

by Marius Iliaea <mariusi@protv.ro>
 Stefan Laudat <stefan@asit.ro>

Sat Mar 6 23:55:27 EET 1999

Hello again,

Playing with a SB Vibra 16x soundcard we found it very difficult to setup because the kernel reported a lot of DMA errors and wouldn't simply play any sound.

A good starting point is that the vibra16x chip full-duplex facility is neither still exploited by the sb driver found in the linux kernel (tried it with a 2.2.2-ac7), nor in the commercial OSS package (it reports it as half-duplex soundcard). Oh, I almost forgot, the RedHat sndconfig failed detecting it ;)

So, the big problem still remains, because the sb module wants a 8-bit and a 16-bit dma, which we could not allocate for vibra... it supports only two 8-bit dma channels, the second one will be passed to the module as a 16 bit channel, the kernel will yield about that but everything will be okay, trust us.

The only inconvenient you may find is that you will have some sound playing jitters if you have HDD dma support enabled - but this will happen with almost all soundcards...

A fully working isapnp.conf is just here:

<snip here>

```
(READPORT 0x0203)
(ISOLATE PRESERVE)
(IDENTIFY *)
(VERBOSITY 2)
(CONFLICT (IO FATAL) (IRQ FATAL) (DMA FATAL) (MEM FATAL)) # or WARNING
# SB 16 and OPL3 devices
(CONFIGURE CTL00f0/-1 (LD 0
(INT 0 (IRQ 5 (MODE +E)))
(DMA 0 (CHANNEL 1))
(DMA 1 (CHANNEL 3))
(IO 0 (SIZE 16) (BASE 0x0220))
(IO 2 (SIZE 4) (BASE 0x0388))
(NAME "CTL00f0/-1[0] {Audio          }")
(ACT Y)
))
```

Joystick device - only if you need it :-/

```
(CONFIGURE CTL00f0/-1 (LD 1
(IO 0 (SIZE 1) (BASE 0x0200))
(NAME "CTL00f0/-1[1] {Game          }")
(ACT Y)
))
(WAITFORKEY)
```

<end of snipping>

VIBRA16..txt

So, after a good kernel modules compilation and a 'depmod -a kernel_ver' you may want to:

```
modprobe sb io=0x220 irq=5 dma=1 dma16=3
```

Or, take the hard way:

```
modprobe soundcore
modprobe sound
modprobe uart401
modprobe sb io=0x220 irq=5 dma=1 dma16=3
# do you need MIDI?
modprobe opl3=0x388
```

Just in case, the kernel sound support should be:

```
CONFIG_SOUND=m
CONFIG_SOUND_OSS=m
CONFIG_SOUND_SB=m
```

Enjoy your new noisy Linux box! ;)