

Driver

Informations about Audio Excel DSP 16 driver can be found in the source file aedsp16.c

Please, read the head of the source before using it. It contain useful informations.

Configuration

The Audio Excel configuration, is now done with the standard Linux setup.

You have to configure the sound card (Sound Blaster or Microsoft Sound System) and, if you want it, the Roland MPU-401 (do not use the Sound Blaster MPU-401, SB-MPU401) in the main driver menu. Activate the lowlevel drivers then select the Audio Excel hardware that you want to initialize. Check the IRQ/DMA/MIRQ of the Audio Excel initialization: it must be the same as the SBPRO (or MSS) setup. If the parameters are different, correct it.

If you own a Gallant's audio card based on SC-6600, activate the SC-6600 support.

If you want to change the configuration of the sound board, be sure to check off all the configuration items before re-configure it.

Module parameters

To use this driver as a module, you must configure some module parameters, to set up I/O addresses, IRQ lines and DMA channels. Some parameters are mandatory while some others are optional. Here a list of parameters you can use with this module:

Name	Description
====	=====
MANDATORY	
io	I/O base address (0x220 or 0x240)
irq	irq line (5, 7, 9, 10 or 11)
dma	dma channel (0, 1 or 3)
OPTIONAL	
mss_base	I/O base address for activate MSS mode (default SBPRO) (0x530 or 0xE80)
mpu_base	I/O base address for activate MPU-401 mode (0x300, 0x310, 0x320 or 0x330)
mpu_irq	MPU-401 irq line (5, 7, 9, 10 or 0)

The /etc/modprobe.conf will have lines like this:

```
options opl3 io=0x388
options adl848 io=0x530 irq=11 dma=3
options aedsp16 io=0x220 irq=11 dma=3 mss_base=0x530
```

Where the aedsp16 options are the options for this driver while opl3 and adl848 are the corresponding options for the MSS and OPL3 modules.

Loading MSS and OPL3 needs to pre load the aedsp16 module to set up correctly the sound card. Installation dependencies must be written in the modprobe.conf file:

AudioExcelDSP16..txt

```
install ad1848 /sbin/modprobe aedsp16 && /sbin/modprobe -i ad1848
install opl3 /sbin/modprobe aedsp16 && /sbin/modprobe -i opl3
```

Then you must load the sound modules stack in this order:

```
sound -> aedsp16 -> [ ad1848, opl3 ]
```

With the above configuration, loading ad1848 or opl3 modules, will automatically load all the sound stack.

Sound cards supported

This driver supports the SC-6000 and SC-6600 based Gallant's sound card.

It don't support the Audio Excel DSP 16 III (try the SC-6600 code).

I'm working on the III version of the card: if someone have useful informations about it, please let me know.

For all the non-supported audio cards, you have to boot MS-DOS (or WIN95) activating the audio card with the MS-DOS device driver, then you have to <ctrl>-<alt>- and boot Linux.

Follow these steps:

- 1) Compile Linux kernel with standard sound driver, using the emulation you want, with the parameters of your audio card, e.g. Microsoft Sound System irq10 dma3
- 2) Install your new kernel as the default boot kernel.
- 3) Boot MS-DOS and configure the audio card with the boot time device driver, for MSS irq10 dma3 in our example.
- 4) <ctrl>-<alt>- and boot Linux. This will maintain the DOS configuration and will boot the new kernel with sound driver. The sound driver will find the audio card and will recognize and attach it.

Reports on User successes

```
> Date: Mon, 29 Jul 1996 08:35:40 +0100
> From: Mr S J Greenaway <sjg95@unixfe.rl.ac.uk>
> To: riccardo@cdc8g5.cdc.polimi.it (Riccardo Facchetti)
> Subject: Re: Audio Excel DSP 16 initialization code
>
> Just to let you know got my Audio Excel (emulating a MSS) working
> with my original SB16, thanks for the driver!
```

Last revised: 20 August 1998

Riccardo Facchetti

fizban@tin.it