

- [Build Mplayer on Debian](#)

?? kernel ?? ALSA

?? kernel-linux-sh4-2.6.23.17_stm23_A18B

? ALSA ????? kernel(???)

? General seup ????????

CONFIG_SOUND=y

```
#  
# General setup  
#
```

????

make ARCH=sh CROSS_COMPILE=sh4-linux- vmlinux

Advanced Linux Sound Architecture (SND) [N/m/y/?] (NEW) y

Sequencer support (SND_SEQUENCER) [N/m/y/?] (NEW) y

Sequencer dummy client (SND_SEQ_DUMMY) [N/m/y/?] (NEW) n

OSS Mixer API (SND_MIXER_OSS) [N/m/y/?] (NEW) y

OSS PCM (digital audio) API (SND_PCM_OSS) [N/m/y/?] (NEW) y

OSS PCM (digital audio) API - Include plugin system (SND_PCM_OSS_PLUGINS) [Y/n/?] (NEW) y

OSS Sequencer API (SND_SEQUENCER_OSS) [N/y/?] (NEW) y

Dynamic device file minor numbers (SND_DYNAMIC_MINORS) [N/y/?] (NEW) n

Support old ALSA API (SND_SUPPORT_OLD_API) [Y/n/?] (NEW) y

Verbose procfs contents (SND_VERBOSE_PROCFS) [Y/n/?] (NEW) y

Verbose printk (SND_VERBOSE_PRINTK) [N/y/?] (NEW) n

Debug (SND_DEBUG) [N/y/?] (NEW) n

*

* Generic devices

*

Dummy (/dev/null) soundcard (SND_DUMMY) [N/m/y/?] (NEW) n

Virtual MIDI soundcard (SND_VIRMIDI) [N/m/y/?] (NEW) n

MOTU MidiTimePiece AV multiport MIDI (SND_MTPAV) [N/m/y/?] (NEW) n

UART16550 serial MIDI driver (SND_SERIAL_U16550) [N/m/y/?] (NEW) n

Generic MPU-401 UART driver (SND_MPU401) [N/m/y/?] (NEW) n

*

* USB devices

*

USB Audio/MIDI driver (SND_USB_AUDIO) [N/m/y/?] (NEW) y

Native Instruments USB audio devices (SND_USB_CAIAQ) [N/m/y/?] (NEW) n

*

```
* System on Chip audio support
*
ALSA for SoC audio support (SND_SOC) [N/m/y/?] (NEW) n
*
* STMicroelectronics SoCs support
*
STMicroelectronics SoCs support (SND_STM) [N/m/y/?] (NEW) n
*
* Open Sound System
*
Open Sound System (DEPRECATED) (SOUND_PRIME) [N/m/y/?] (NEW) n
```

```
sh4-linux-objcopy -O binary vmlinux vmlinux.bin
gzip --best --force vmlinux.bin
mkimage -A sh -O linux -T kernel -C gzip -a 0x80800000 -e 0x80801000 -n "Linux 2.6" -d vmlinux.bin.gz
vmlinux.ub
```

?? kernel-linux-sh4-2.6.32.59_stm24_0211

```
make ARCH=sh CROSS_COMPILE=sh4-linux- pdk7105_defconfig
make ARCH=sh CROSS_COMPILE=sh4-linux- menuconfig
```

```
General setup
-> Device Drivers
--> Sound card support
---> Advanced Linux Sound Architecture
----> Sequencer support [y]
----> OSS Mixer API [y]
----> OSS PCM (digital audio) API [y]
----> OSS Sequencer API [y]
----> Support old ALSA API [y]
----> Verbose procfs contents [y]
----> USB sound devices
----> USB Audio/MIDI driver [y]
```

```
make ARCH=sh CROSS_COMPILE=sh4-linux- vmlinux
```

MPlayer ??(Audio Mixing)

```
?? MPlayer ??????????????????
```

1. ??? ALSA ??????OSS ????
2. MPlayer ?????? alsal ???? mplayer ???? alsal???

#mplayer -ao help
3. MPlayer ?????

???? #mplayer -ao alsal -cache 256

???? #mplayer -ao alsal:device=hw=0.0

4. ??????????????????????????????

? /etc/asound.conf

```
pcm.!default {
    type plug
    slave.pcm {
        type dmix
        ipc_key 1024
        slave {
            pcm "hw:0,0"
            rate 44100
        }
    }
}
```

TIPs:

???????(NextRadio v2+)????? rate 44100?????????????????????????

?????

- <http://mpd.wikia.com/wiki/Tuning>
- <http://alsa.opensrc.org/Dmix>

lircrc for Mplayer

/etc/lirc/lircrc

```
begin
    button = mute
    prog = mplayer
    config = mute
    repeat = 0
end
begin
    button = power
    prog = mplayer
    config = quit
    repeat = 2
end
begin
    button = chUp
    prog = mplayer
    config = pt_step -1
    repeat = 0
end
begin
    button = chUp_V2
```

```
prog = mplayer
config = pt_step -1
repeat = 0
end
begin
    button = chDown
    prog = mplayer
    config = pt_step 1
    repeat = 0
end
begin
    button = chDown_V2
    prog = mplayer
    config = pt_step 1
    repeat = 0
end
begin
    button = volUp
    prog = mplayer
    config = volume 47
    repeat = 0
end
begin
    button = volUp_V2
    prog = mplayer
    config = volume 47
    repeat = 0
end
begin
    button = volDown
    prog = mplayer
    config = volume -47
    repeat = 0
end
begin
    button = volDown_V2
    prog = mplayer
    config = volume -47
    repeat = 0
end
```

```
# irw  
00000000ce94c43b 00 right_V2 /etc/lirc/lircd.conf  
00000000ce9404fb 00 up_V2 /etc/lirc/lircd.conf  
00000000ce9404fb 01 up_V2 /etc/lirc/lircd.conf  
00000000ce9404fb 00 up_V2 /etc/lirc/lircd.conf  
00000000ce94847b 00 down_V2 /etc/lirc/lircd.conf
```

Debian 5.0 ?? MPD

```
apt-get install wget build-essential libglib2.0-dev  
apt-get install libasound2-dev libmms-dev libshout3-dev libmpcdec-dev libao-dev
```

```
wget http://downloads.sourceforge.net/project/musicpd/mpd/0.17.3/  
mpd-0.17.3.tar.bz2?r=http%3A%2F%2Fmpd.wikia.com%2Fwiki%2FServer&ts=1365082963&use_mirror=nchc  
-O mpd-0.17.3.tar.bz2  
tar xjf mpd-0.17.3.tar.bz2  
cd mpd-0.17.3  
.configure --prefix=/opt/mpd  
make  
make install
```

???? MPD

```
?? mpd-0.17.3.tar.bz2
```

- <http://sourceforge.net/projects/musicpd/>
- <http://mpd.wikia.com/wiki/Git>

????

```
tar xjf mpd-0.17.3.tar.bz2  
cd mpd-0.17.3/
```

?????

- [HiRadio ???](#)