

- [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 ?????? alsa ?????? mplayer ?????? alsa???
#mplayer -ao help
3. MPlayer ?????
???? #mplayer -ao alsa -cache 256
???? #mplayer -ao alsa: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 ???](#)