
Redirect an audio stream with aloop

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Contents:

1	Load the kernel module	1
2	Redirect your application sound into the first loop-back device	2
2.1	Example <code>aplay</code>	2
2.2	Example <code>wine</code> application	2
3	Connect your recorder input to the second loop-back device	3
3.1	Example <code>arecord</code>	3
3.2	Example <code>RecordMyDesktop</code>	4
4	Complete example: Record a virtual machine using pulse audio	4
5	References	5

This manual shows how to record the output of Windows applications using `wine`, the `snd-aloop` kernel module and `recordMyDesktop`.¹

The `snd-aloop` module is very useful when you need to record other sound sources than your microphone. Simply connect the “noisy” application to the first sound loopback devices provided by `snd-aloop` and the screen recorder to the second.

1 Load the kernel module

By hand (as root):

```
sudo modprobe snd-aloop
```

Make it reboot persistent:

```
sudo echo 'snd-aloop' >> /etc/modules
```

¹ Tested with Debian 7 wheezy.

Check if the module is loaded and initialized:

```
aplay -l

**** List of PLAYBACK Hardware Devices **\**
card 0: PCH [HDA Intel PCH], device 0: CX20590 Analog [CX20590 Analog]
  Subdevices: 1/1
  Subdevice #0: subdevice #0
card 0: PCH [HDA Intel PCH], device 3: HDMI 0 [HDMI 0]
  Subdevices: 1/1
  Subdevice #0: subdevice #0
card 0: PCH [HDA Intel PCH], device 7: HDMI 1 [HDMI 1]
  Subdevices: 1/1
  Subdevice #0: subdevice #0
card 0: PCH [HDA Intel PCH], device 8: HDMI 2 [HDMI 2]
  Subdevices: 1/1
  Subdevice #0: subdevice #0
card 1: Loopback [Loopback], device 0: Loopback PCM [Loopback PCM]
  Subdevices: 8/8
  Subdevice #0: subdevice #0
  Subdevice #1: subdevice #1
  ...
  Subdevice #7: subdevice #7
card 1: Loopback [Loopback], device 1: Loopback PCM [Loopback PCM]
  Subdevices: 8/8
  Subdevice #0: subdevice #0
  Subdevice #1: subdevice #1
  ...
  Subdevice #7: subdevice #7
```

Note:

snd-aloop provides 2 pass-through devices:

card 1, device 0 and

card 1, device 1.

2 Redirect your application sound into the first loop-back device

Card 1, device 0 Input device: redirect the output of the program you want to record into this device.

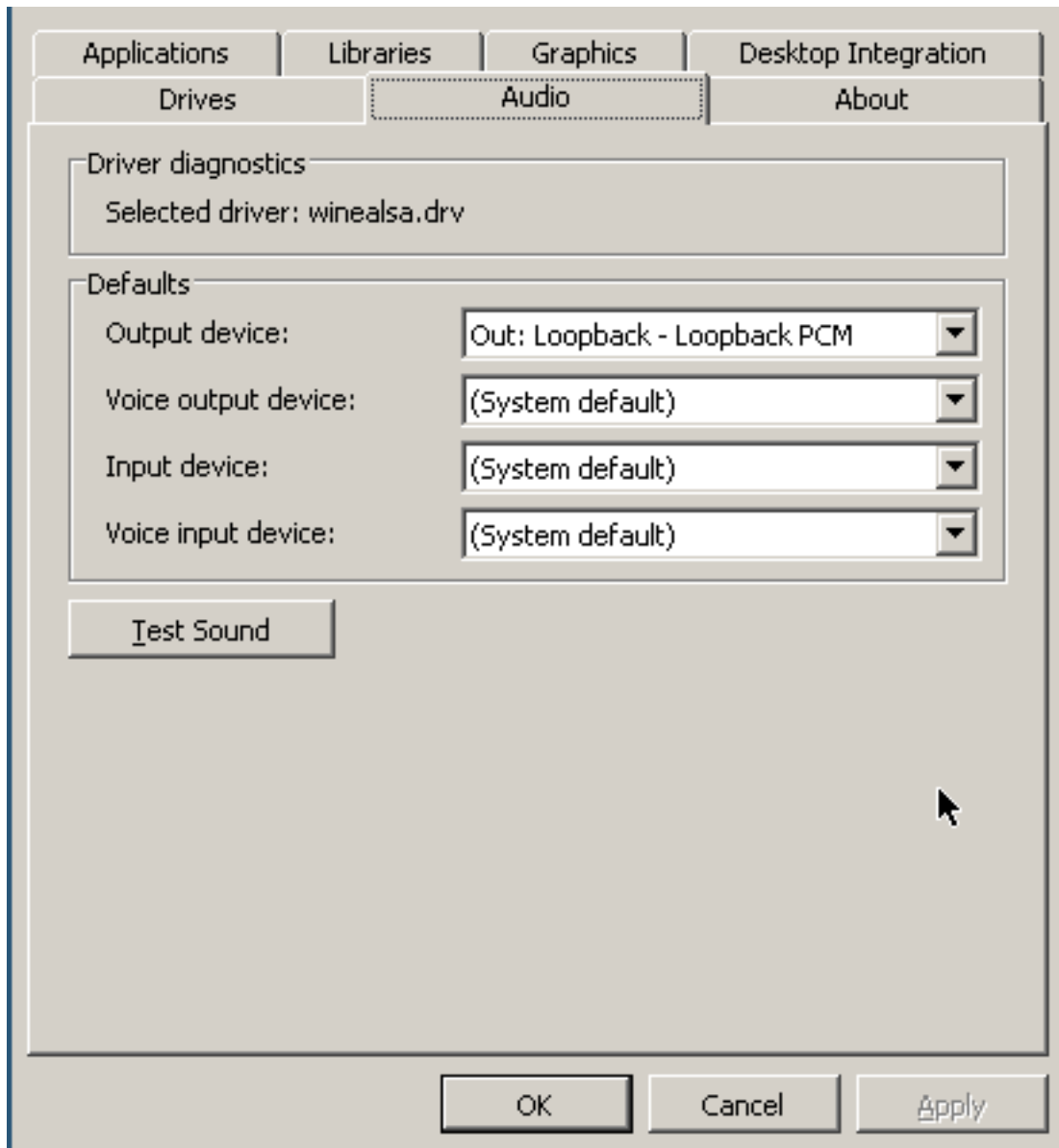
2.1 Example aplay

```
aplay -D hw:1,0,0 play.wav
```

2.2 Example wine application

```
winecfg
```

Audio > Output device > Out:Loopback - Loopback PCM (choose first)



3 Connect your recorder input to the second loop-back device

Card 1, device 1 Output device: everything pumped into the first loop-back device will be sent out here.

3.1 Example arecord

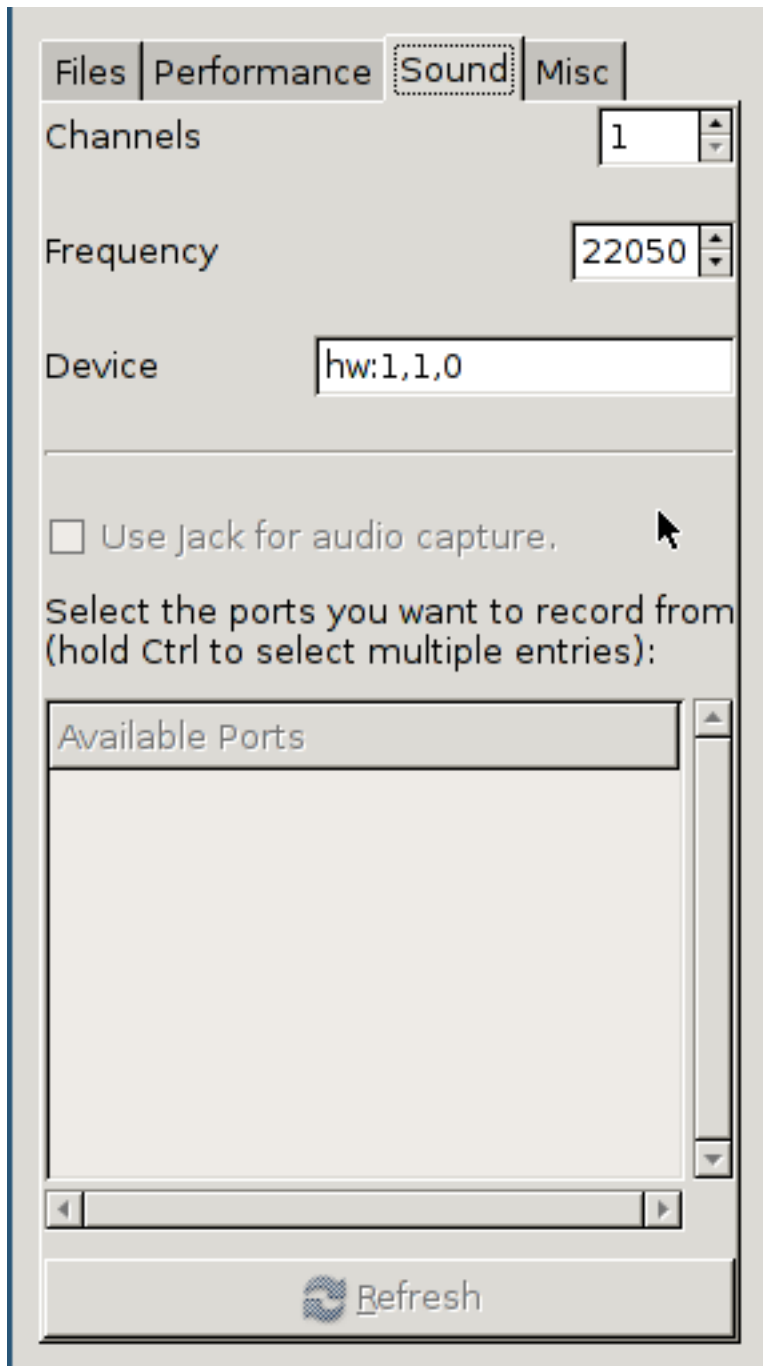
Example: aplay

```
arecord -D hw:1,1,0 record.wav
```

3.2 Example RecordMyDesktop

```
Device: hw:1,1,0
```

Advanced > Sound > Device > hw:1,1,0



4 Complete example: Record a virtual machine using pulse audio

1. Install package `recordmydesktop`

```
sudo apt-get install recordmydesktop
```

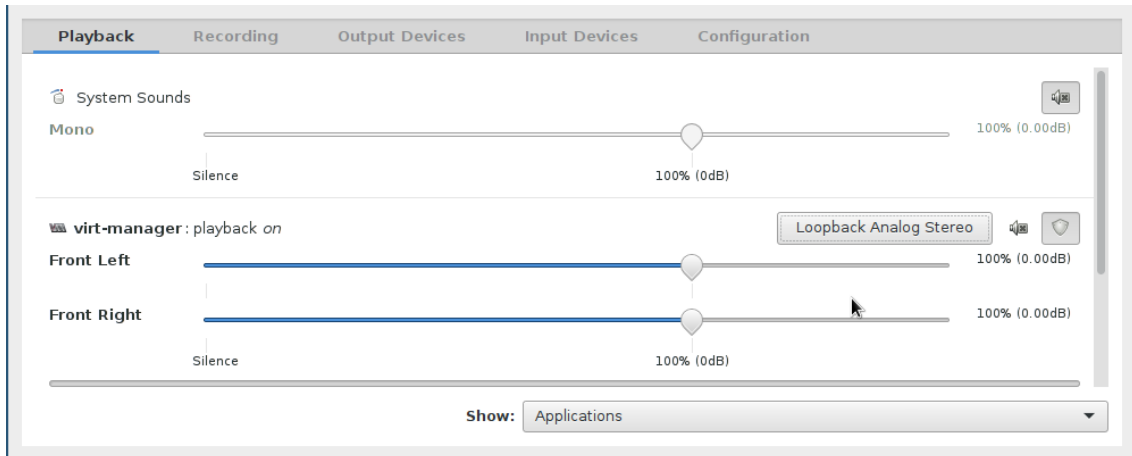
2. Load loopback kernel module

```
sudo modprobe snd-aloop
```

3. Start virtual machine

4. Redirect output of virtual machine in loop-back device using `_p`

```
pavucontrol
```



For other examples see: *section_title*.

5. Start player in virtual machine
6. Record virtual machine

```
recordmydesktop --device hw:1,1,0 -x 284 -y 42 --width=1349 --h
```

Adjust coordinates to your need. You can measure with `xev` the `cu` coordinates of your mouse.

7. Type `Cntl-C` to stop recording. Transcoding starts automatical You should see a file `out.ogv` in your working directory.

For how to connect other recorders see: *section_title*

5 References

<http://www.alsa-project.org/main/index.php/Matrix:Module-aloop>