Some very frequently asked questions about linuxtv-dvb

1. The signal seems to die a few seconds after tuning.

   It's not a bug, it's a feature. Because the frontends have
   significant power requirements (and hence get very hot), they
   are powered down if they are unused (i.e. if the frontend device
   is closed). The dvb-core.o module parameter "dvb_shutdown_timeout"
   allow you to change the timeout (default 5 seconds). Setting the
   timeout to 0 disables the timeout feature.

2. How can I watch TV?

   The driver distribution includes some simple utilities which
   are mainly intended for testing and to demonstrate how the
   DVB API works.

   Depending on whether you have a DVB-S, DVB-C or DVB-T card, use
   apps/szap/szap, czap or tzap. You must supply a channel list
   in ~/.[sct]zap/channels.conf. If you are lucky you can just copy
   one of the supplied channel lists, or you can create a new one
   by running apps/scan/scan. If you run scan on an unknown network
   you might have to supply some start data in apps/scan/initial.h.

   If you have a card with a built-in hardware MPEG-decoder the
   drivers create a video4linux device (/dev/v4l/video0) which
   you can use to watch TV with any v4l application. xawtv is known
   to work. Note that you cannot change channels with xawtv, you
   have to zap using [sct]zap. If you want a nice application for
   TV watching and record/playback, have a look at VDR.

   If your card does not have a hardware MPEG decoder you need
   a software MPEG decoder. Mplayer or xine are known to work.
   Newsflash: MythTV also has DVB support now.
   Note: Only very recent versions of Mplayer and xine can decode.
   MPEG2 transport streams (TS) directly. Then, run
   '[sct]zap channelname -r' in one xterm, and keep it running,
   and start 'mplayer - < /dev/dvb/adapter0/dvr0' or
   'xine stdin://mpeg2 < /dev/dvb/adapter0/dvr0' in a second xterm.
   That's all far from perfect, but it seems no one has written
   a nice DVB application which includes a builtin software MPEG
   decoder yet.

   Newsflash: Newest xine directly supports DVB. Just copy your
   channels.conf to ~/.xine and start 'xine dvb://', or select
   the DVB button in the xine GUI. Channel switching works using the
   numpad pgup/pgdown (NP9 / NP3) keys to scroll through the channel osd
   menu and pressing numpad-enter to switch to the selected channel.

   Note: Older versions of xine and mplayer understand MPEG program
   streams (PS) only, and can be used in conjunction with the
   ts2ps tool from the Metzler Brother's dvb-mpegtools package.

3. Which other DVB applications exist?

   http://www.cadsoft.de/people/kls/vdr/

Klaus Schmidinger's Video Disk Recorder

http://www.metzlerbros.org/dvb/
Metzler Bros. DVB development; alternate drivers and DVB utilities, include dvb-mpegtools and tuxzap.

http://sourceforge.net/projects/dvbtools/
Dave Chapman's dvbtools package, including dvbstream and dvbtune

http://www.linuxdvb.tv/
Henning Holtschneider's site with many interesting links and docs

http://www.dbox2.info/
LinuxDVB on the dBox2

http://www.tuxbox.org/
http://cvs.tuxbox.org/
the TuxBox CVS many interesting DVB applications and the dBox2 DVB source

http://sourceforge.net/projects/dvbsak/
DVB Swiss Army Knife library and utilities

http://www.nenie.org/misc/mpsys/
MPSYS: a MPEG2 system library and tools

http://mplayerhq.hu/
mplayer

http://xine.sourceforge.net/
http://xinehq.de/
xine

http://www.mythtv.org/
MythTV - analog TV PVR, but now with DVB support, too (with software MPEG decode)

http://dvbsnoop.sourceforge.net/
DVB sniffer program to monitor, analyze, debug, dump or view dvb/mpeg/dsm-cc/mhp stream information (TS, PES, SECTION)

4. Can't get a signal tuned correctly

If you are using a Technotrend/Hauppauge DVB-C card *without* analog module, you might have to use module parameter adac=-1 (dvb-ttpci.o).

5. The dvb_net device doesn't give me any packets at all

Run tcpdump on the dvb0_0 interface. This sets the interface into promiscous mode so it accepts any packets from the PID you have configured with the dvbnet utility. Check if there are any packets with the IP addr and MAC addr you have configured with ifconfig.

If tcpdump doesn't give you any output, check the statistics which ifconfig outputs. (Note: If the MAC address is wrong, dvb_net won't get any input; thus you have to run tcpdump before checking the statistics.) If there are no packets at all then maybe the PID is wrong. If there are error packets, then either the PID is wrong or the stream does not conform to the MPE standard (EN 301 192, http://www.etsi.org/). You can use e.g. dvbsnoop for debugging.

6. The dvb_net device doesn't give me any multicast packets

Check your routes if they include the multicast address range. Additionally make sure that "source validation by reversed path lookup" is disabled:
$ "echo 0 > /proc/sys/net/ipv4/conf/dvb0/rp_filter"

7. What the hell are all those modules that need to be loaded?

For a dvb-ttpci av7110 based full-featured card the following modules are loaded:

- videodev: Video4Linux core module. This is the base module that gives you access to the "analog" tv picture of the av7110 mpeg2 decoder.

- v412-common: common functions for Video4Linux-2 drivers

- v411-compat: backward compatibility layer for Video4Linux-1 legacy applications

- dvb-core: DVB core module. This provides you with the /dev/dvb/adapter entries

- saa7146: SAA7146 core driver. This is need to access any SAA7146 based card in your system.

- saa7146_vv: SAA7146 video and vbi functions. These are only needed for full-featured cards.

- videobuf-dma-sg: capture helper module for the saa7146_vv driver. This one is responsible to handle capture buffers.

- dvb-ttpci: The main driver for AV7110 based, full-featured DVB-S/C/T cards

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