

VideoLAN

VideoLAN



VideoLAN & VLC

Jean-Baptiste Kempf

samedi 23 février 2013



JEAN BAPTISTE- KEMPF •VLC•

I'M EXCITED TO
ANNOUNCE THE
RELEASE OF
VLC 1.0!

The world's most downloaded video player:
VLC: www.videolan.org/vlc
(free and open source)

VISUAL FACILITATION BY ROYBLUMENTHAL.COM





VideoLAN.org

Лајагоргани.орг

An aerial photograph of the Ecole Centrale Paris campus. The image shows a large, modern university complex with several buildings, a large stadium with a running track, and a parking lot. The campus is surrounded by green fields and trees. A road runs along the right side of the campus.

Ecole Centrale Paris

VIA Centrale Réseaux

- Campus student association
- Internet acces through RENATER
- Token Ring

Network Upgrade

- How to pay for our new network?
- How to justify the needs for a faster network?
- 1995 : let's do video streaming!



1998 project reboot

- Open Source
- Modularity
- Cross-Platform
- Network oriented
- 2nd year project

2001 license change

- ECP headmaster Agreement
- GPL v2 (*or later*)

VideoLAN Projects



VideoLan Client, VLC media player, VLC

VideoLan Server, VLS (*dead*)

VLCS (*dead*)

libdvdcss (DVD CSS decryption)

libdts, libdca (DTS decoding)

x264 (H.264 encoding)

libdvbpsi (TS files management)

libdvdplay (*dead*)

libdvbcsa (dvb encryption decoding)

VLMA (VLC automation)

VLC Skin designer

libbluray, libaacs (BluRay playback)

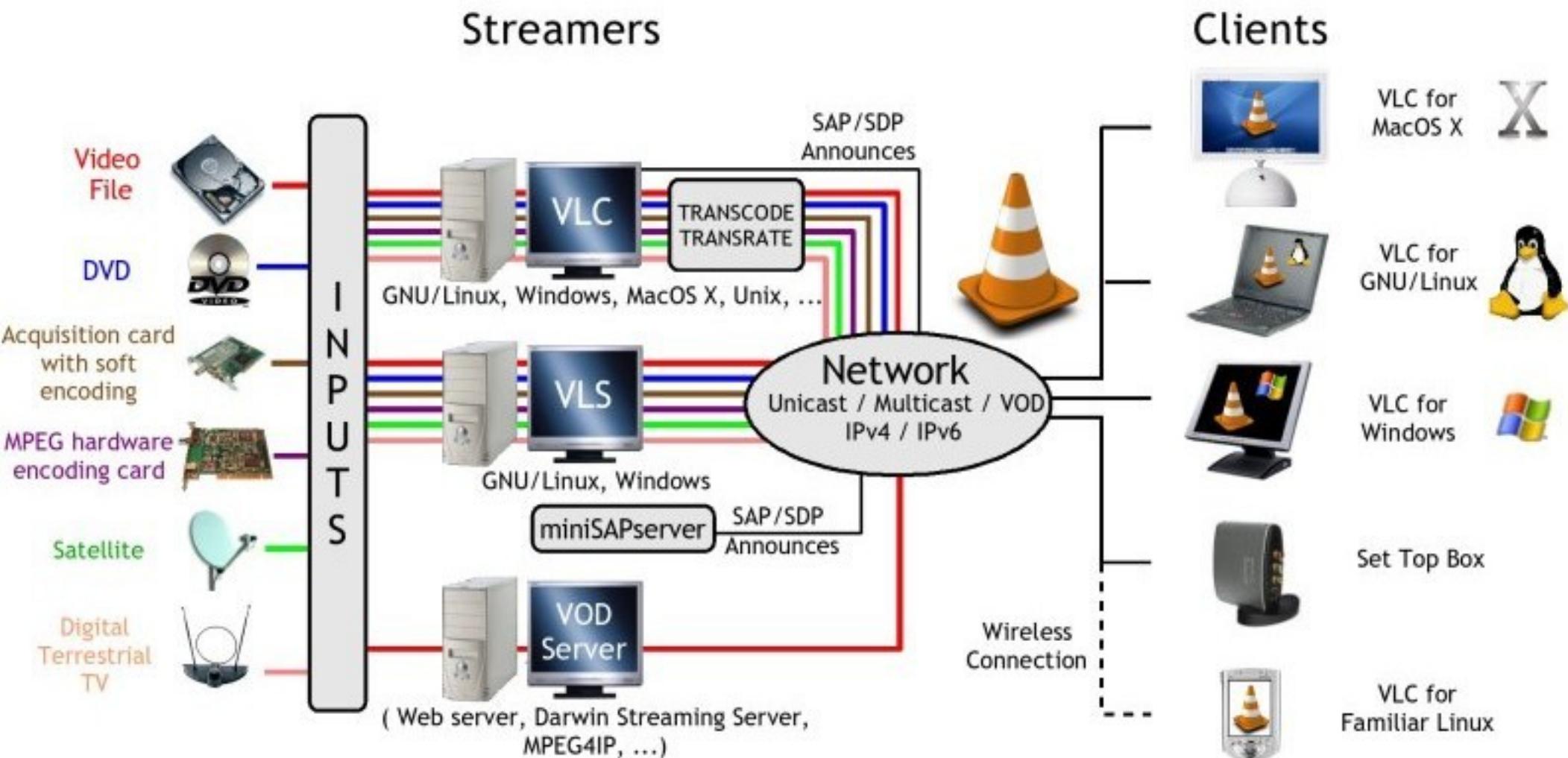
DVBLast, Multicat (DVB streaming solution)

VLMC (Video editor)

Streaming Solution

VideoLAN

VideoLAN Streaming Solution





Creation

- › 2009, decided in the VDD '08

Members

- › VLC's core developers
- › Important members

Supports

- › Hardware for development
- › Travel, Servers, Legal
- › VideoLAN Dev Days

Collaboration

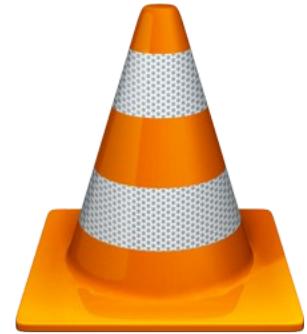


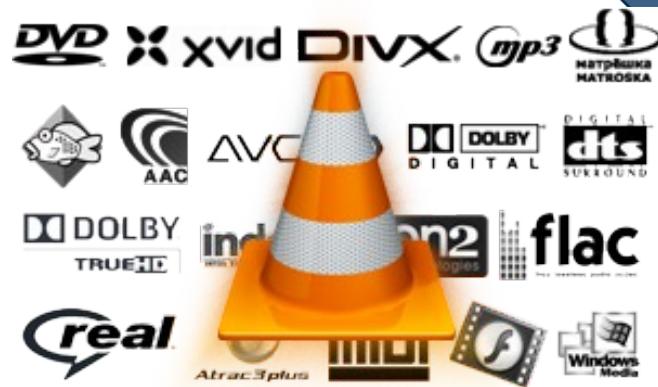
Contributors

- Core Team : 5~10 people
- 600 over the VLC lifetime
- 150 per year

Collaboration

- Team meeting once per year
- Using git since early 2007
- Use of php, trac, phpBB and mediawiki
- IRC and Mailing Lists



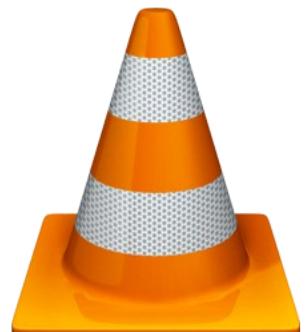
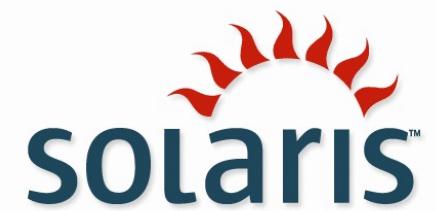
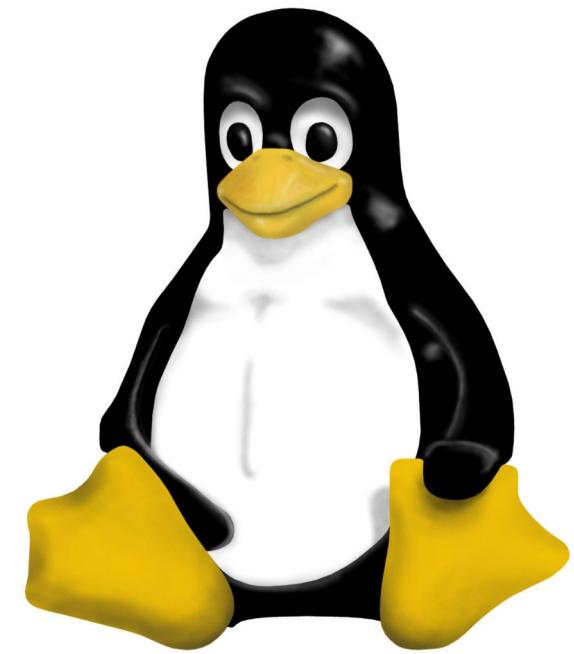
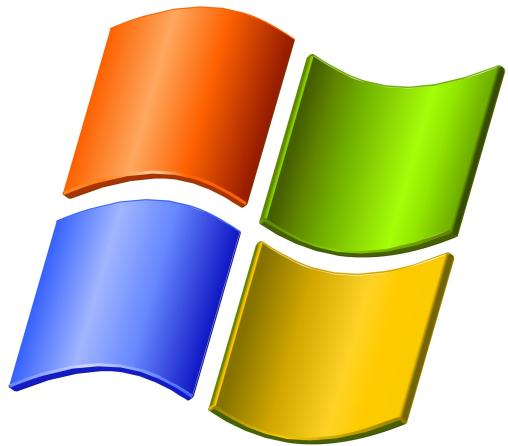


AVCHD



web>m





Support for DVDs

- Region independent
- Prevents forced subtitles (if desired)

... Blu Rays

- By default, non-encrypted only

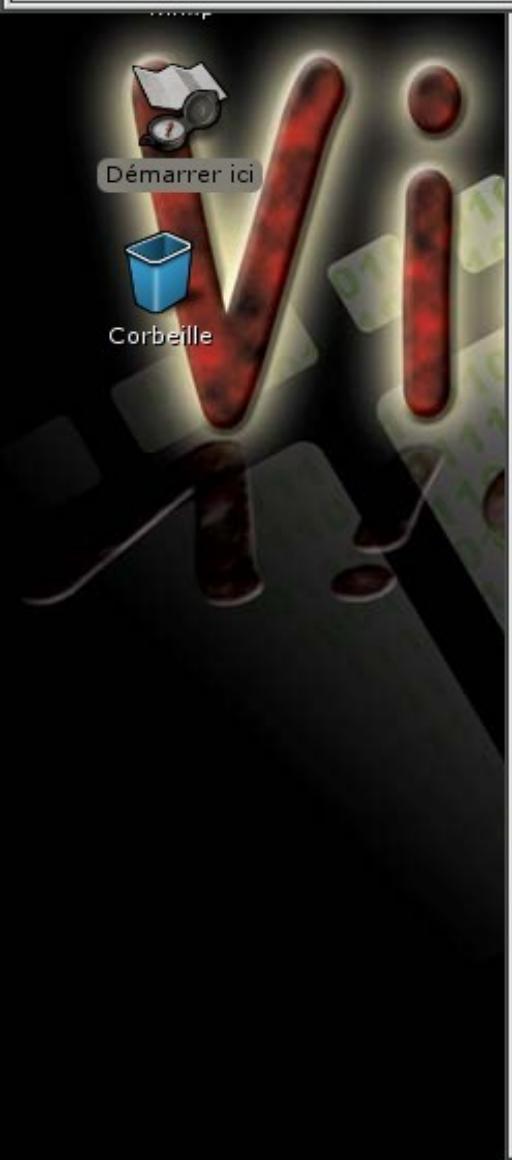
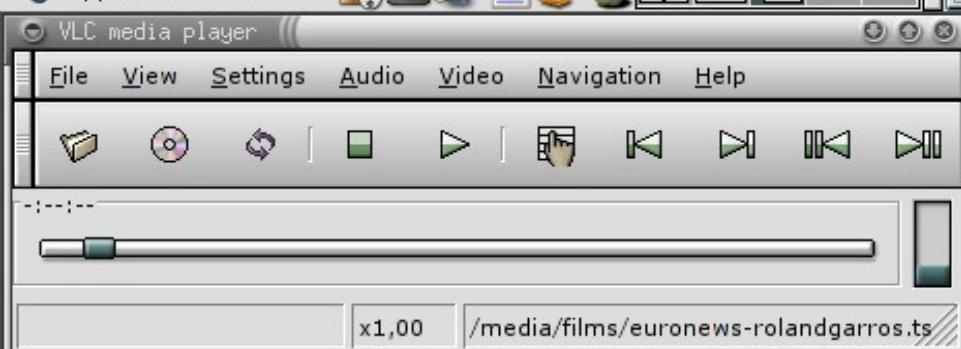
... network streams

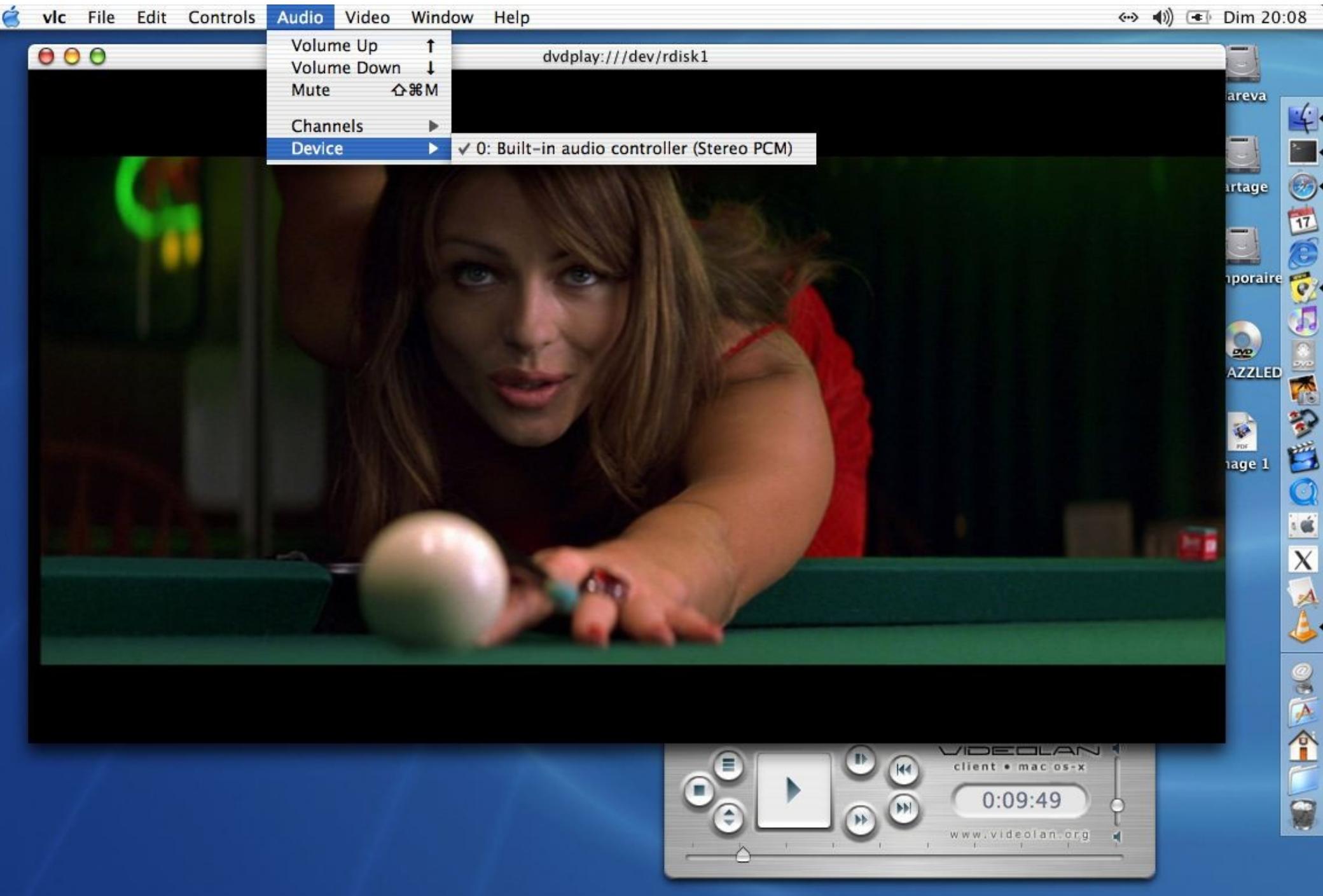
- Unicast, multicast, adaptive streaming

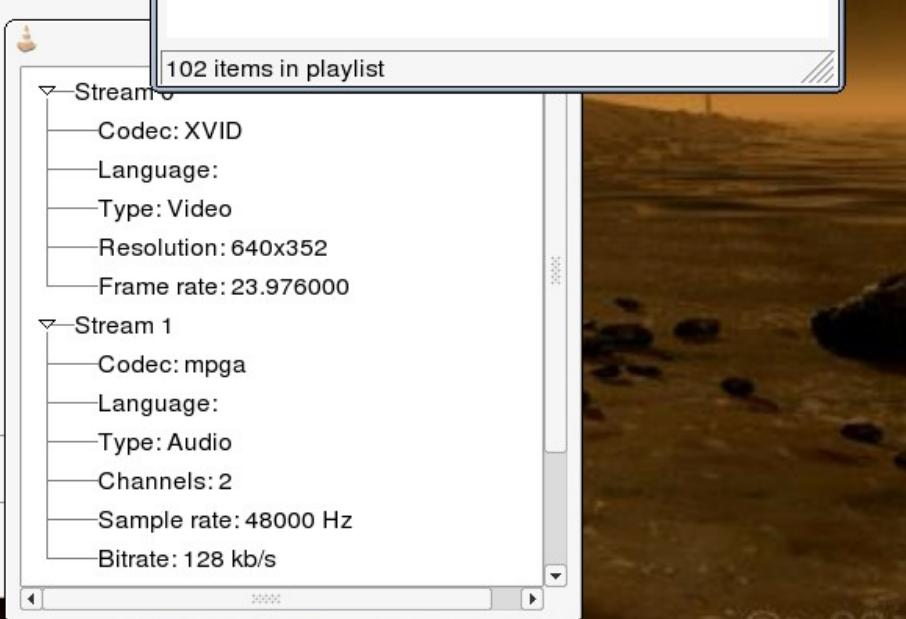
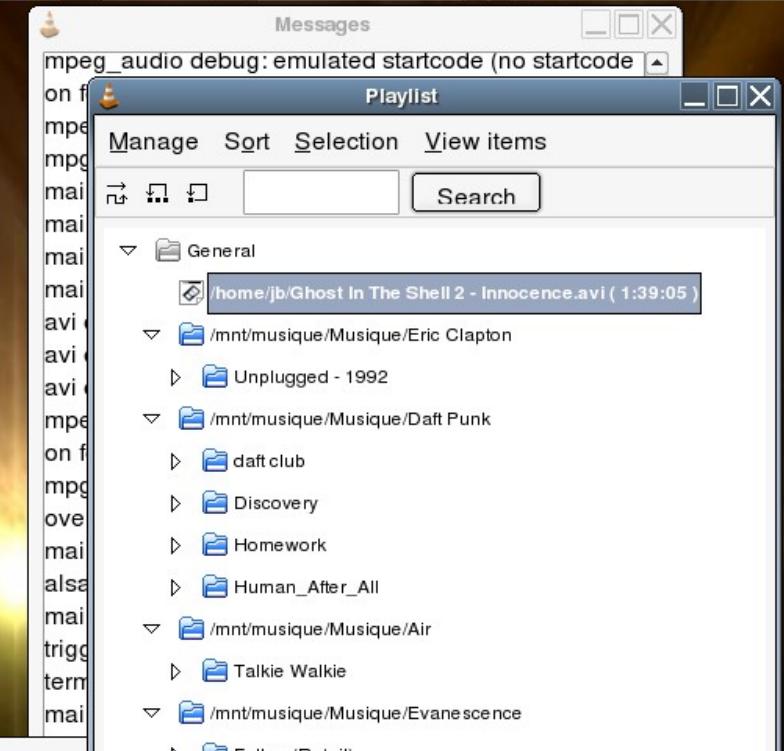
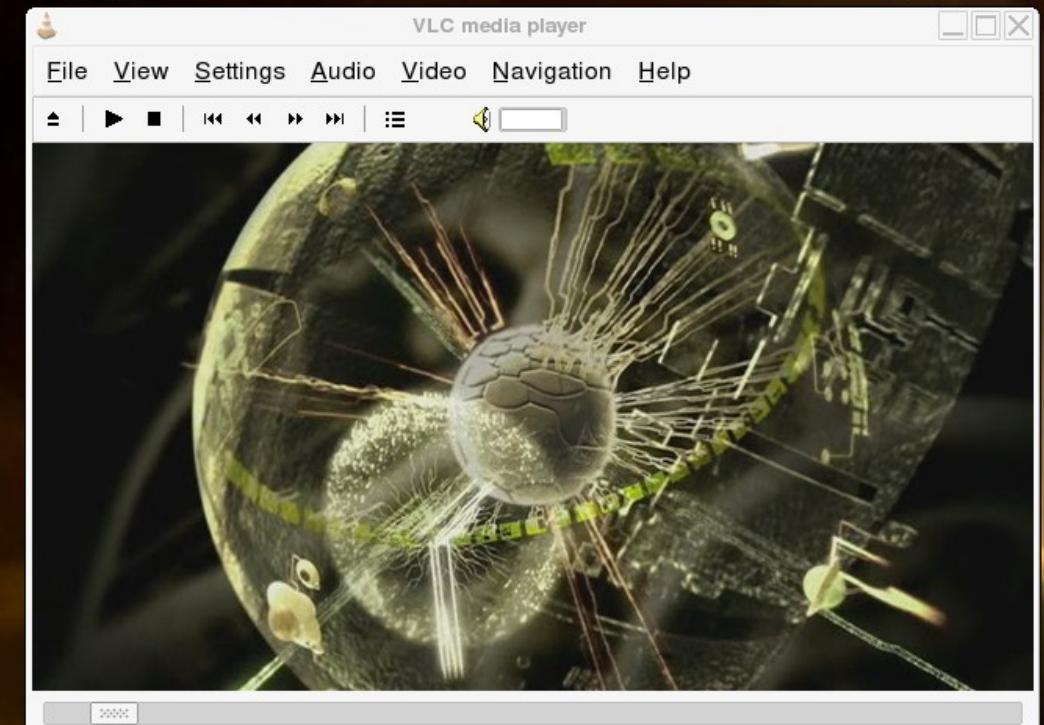
... external hardware

- Cameras, TV input, Satellite, ASI/SDI ...











Moneta

VLC - Contrôleur

animatrix.avi 0:02:24

Standard Play ▾ Aléatoire Chercher france 5

120 éléments dans la liste de lecture

The VLC media player control bar at the bottom left includes standard controls like play/pause, volume, and seek, along with a search field and playback mode selection buttons for Standard Play, Random, and Search.

	Durée
20 [RADIO][FR] Voltage	-:--:--
21 [SAT][EN] BBC World	-:--:--
22 [RADIO][FR] Oui FM	-:--:--
23 [SAT][DE] Das Erste	-:--:--
24 [RADIO][FR] Ado	-:--:--
25 [TNT][FR] M6	-:--:--
26 [RADIO][FR] Couleur 3	-:--:--
27 [RADIOPI] BackStage	-:--:--
28 [RADIO][DE] Hr Klassik	-:--:--
29 [RADIO][FR] RFI Musique	-:--:--
30 [RADIOPI] BackStage	-:--:--
31 [SAT][AR] Al Arabiya	-:--:--
32 [TNT][FR] M6	-:--:--

Standard Play ▾

 Aléatoire

Chercher

france 5

120 éléments dans la liste de lecture





My Little Pony Friendship Is Magic S01E25 – VLC media player

Media Playback Audio

MKV test_suite

Raccourcis

Recherc...

Récemm...

Bureau

Système ...

MON PR...

SDATA2

Nom

test.mkv

Taille Modifié

1,7 Mo 22/12/2011

test1.mkv

22,3 Mo 21/08/2010

test2.mkv

20,2 Mo 02/06/2011

test3.mkv

20,1 Mo 21/08/2010

test4.mkv

20,3 Mo 21/08/2010

test5.mkv

30,3 Mo 21/08/2010

test6.mkv

22,3 Mo 21/08/2010

Media Files

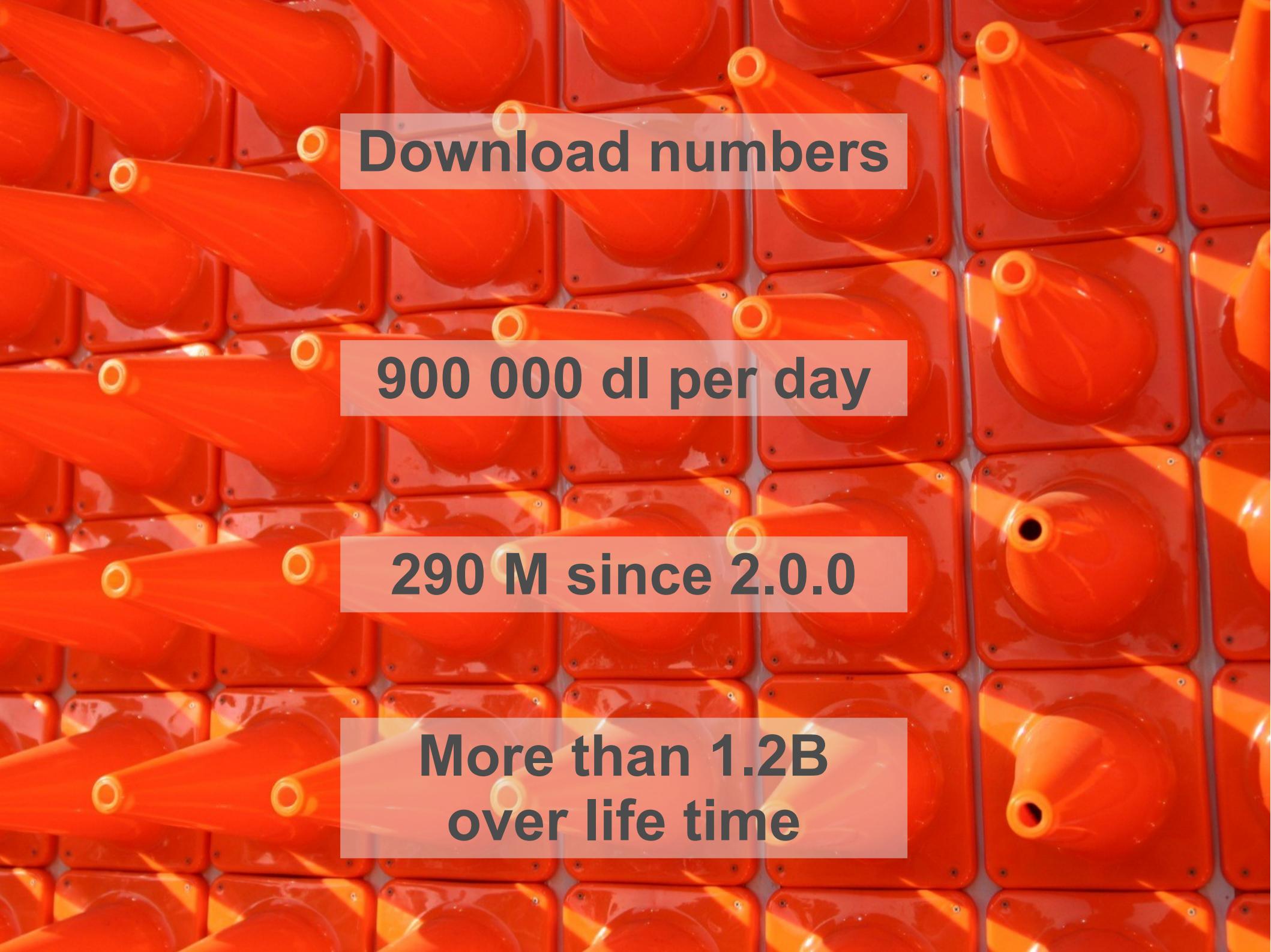
Annuler

Ouvrir



21:59





Download numbers

900 000 dl per day

290 M since 2.0.0

**More than 1.2B
over life time**

A landscape photograph featuring a calm lake in the foreground with several tree stumps standing vertically in the water. In the middle ground, there are snow-covered hills and mountains under a sky transitioning from blue to orange and yellow at sunset. Three white rectangular boxes with text are overlaid on the image.

Freedom

libVLC license

LGPL

Fully open-source

- Licensed under GNU General Public License version 2 (*or later*)



VLC engine in LGPL

- Core licensed under GNU Lesser General Public License version 2.1 (*or later*)
- Most modules are LGPL
- Language Bindings full LGPL
- More modules will come
- The UIs won't be relicensed to prevent scamming

Contribute



Use it!

- Promote to friends, family, groups
- Spread the word

Report bugs

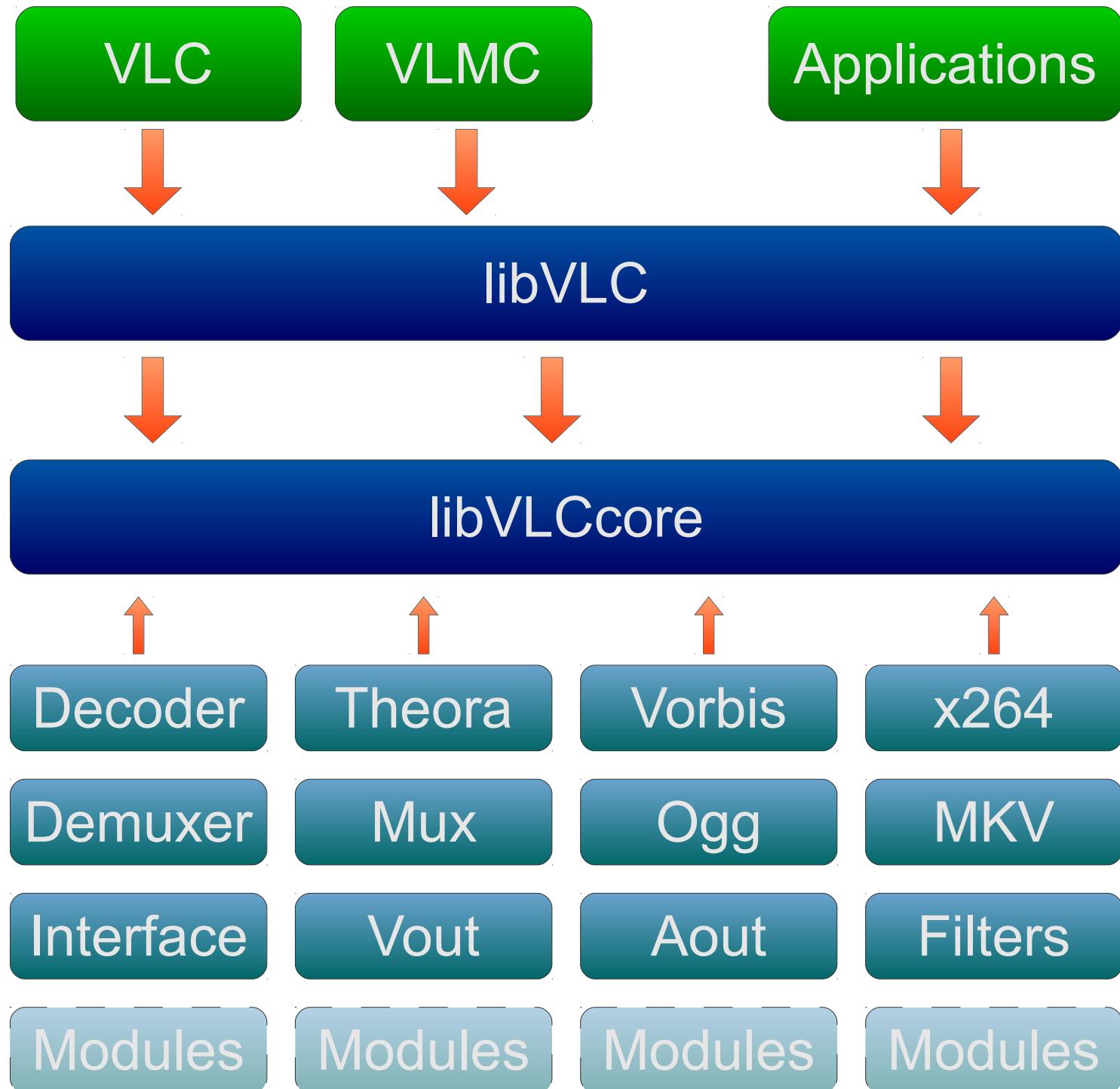
Translations

- New and fixes

Code on VLC

- Extensions
- Modules

Code with libVLC



Small Core

- libVLCCore
- Light
- Memory, Network and Thread handling
- Module loading
- Clock / Synchronization

Simple Multimedia Framework

- LibVLC
- bindings for C++, C#, Objective-C, Java, lua, Perl and Python

Completely modularized

- About 300 modules in a default installation
 - Codecs, IO, outputs, (de)muxers, filters, ...
 - Interested in adding new features ? Add a module.

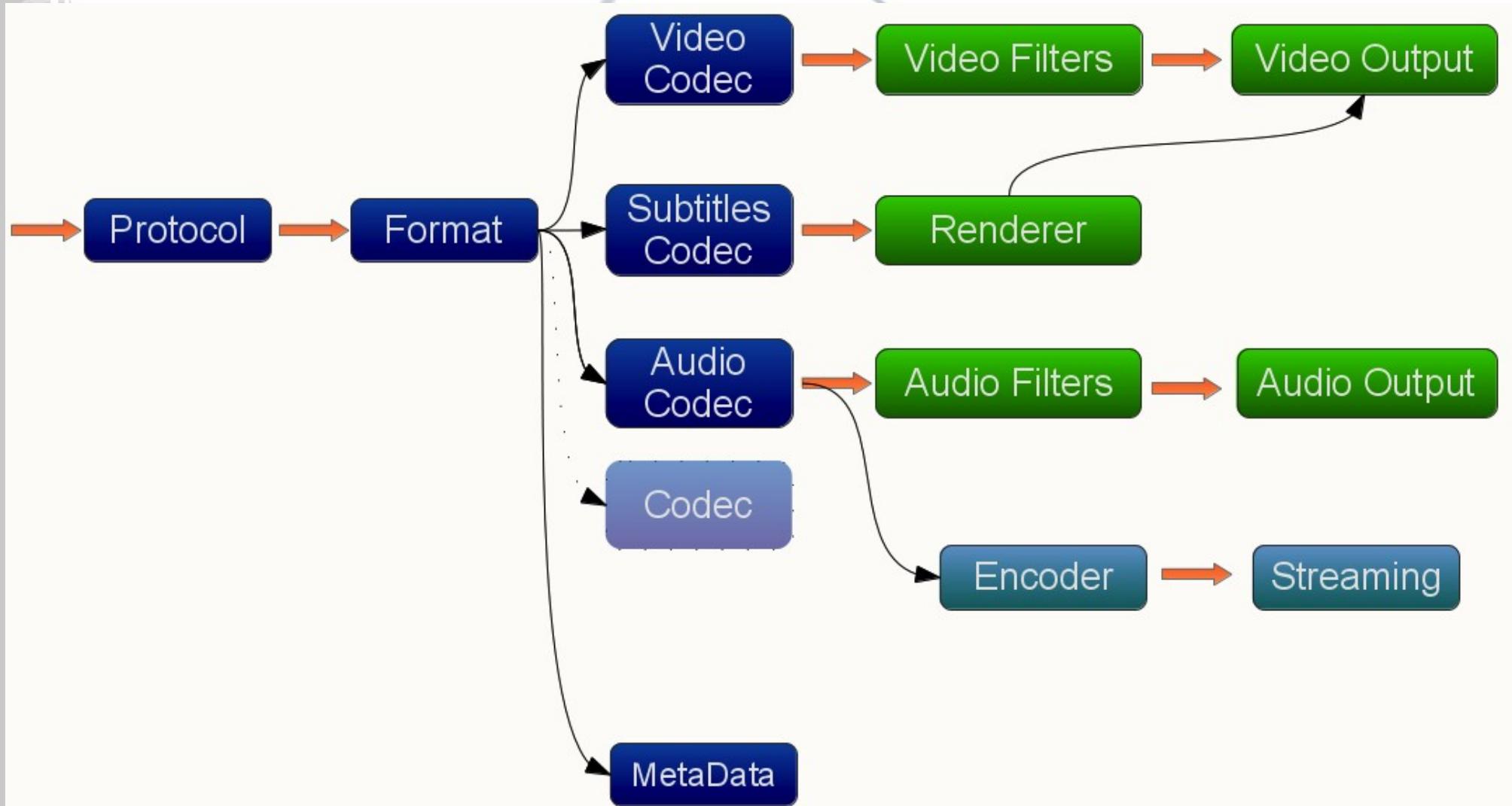
820,000 lines of code

- 120k in the core
- 700k for modules

80 external libraries

- Codecs, Output, Effects, Network
- 7M lines of code
- 50 % C, 41 % C++

VLC is not a media player



Use cases:

- Automatic subtitle downloads
- Context information from Wikipedia, IMDB or Allociné
- Sharing on Twitter

Highly customizable

- Written in lua
- Publish and get them from addons.videolan.org

What you don't know



➤ What you don't know about VLC

- Transcoding, Streaming
 - latency
- Mosaic/PiP generation
- Wall display
- Screencasting
- TS encryption and decryption (DVB-CSA)
- DVD and CD ripper
- Headless versions
- Karaoke, Midi, hardware decoder
- Scriptable and extensions
- Modules

Service discoveries



Detects media automatically:

- Local files
- Network services
 - UPnP / DLNA
 - Internet services
 - Resolves links to YouTube, Dailymotion, Vimeo, Apple Trailers ...

Highly customizable

- Written in lua
- Publish and get them from addons.videolan.org



Media Browser

- Playlist
- Media Library
- > My Computer
- > Devices
- > Local Network
- Internet
 - Podcasts
 - Free Music Charts
 - Freebox TV
 - Icecast Directory
 - Jamendo Selections
 - Apple Trailers
 - Free Music Charts
 - Freebox TV
 - French TV
 - Icecast Directory
 - Jamendo Selections
 - Katsomo.fi



Meta channels



Search Filter



Arts



Business



Comedy



Education



Featured



Games & Hobbies



GOVERNMENT & NGOS



HEALTH



KIDS & FAMILY



MUSIC



NEWS & POLITICS



RELIGION & SPIRITUALITY

Content Integration

Politics

Religion & Spiritua...



SCIENCE & MEDICINE



SOCIETY & CULTURE



SPORTS & RECREATION



TECHNOLOGY



TV & FILM



WEBISODES

Science & Medicine

Society & Culture

Sports & Recreation

Technology

TV & Film

Webisodes

100%

1.00x

--/-/-

VLC's screen casting



The image is a composite screenshot of a Linux desktop environment. At the top, there's a window titled '2956389/28199373*56044200 - Google Search - Mozilla Firefox' showing a search results page for 'Project codes of c...'. Below it is a 'Calculator' window with a grid of mathematical operators like sin, cos, tan, log, etc. To the right is a 'Dolphin' file manager window titled 'Cones - Dolphin' showing a folder structure under 'Dossier Personnel > VideoLAN > comm > Design2 > Cones'. Inside this folder are several icons labeled 'Cone-Forum-large.png', 'Cone-Input-large.png', 'Cone-List-large.png', 'Cone-Shortcuts-large.png', 'Cone-Video-large.png', and 'day-of-the-cones-ex2.jpg'. At the bottom of the screen is a 'Lecteur multimédia VLC' window displaying a video player interface with a play bar, volume slider, and file list showing '9 fichiers (1,2 Mio)' and '5,4 Gio libre(s)'. The desktop background is a light blue color.

Mosaic

VideoLAN



Picture in Picture



Dual webcam with alpha mask:

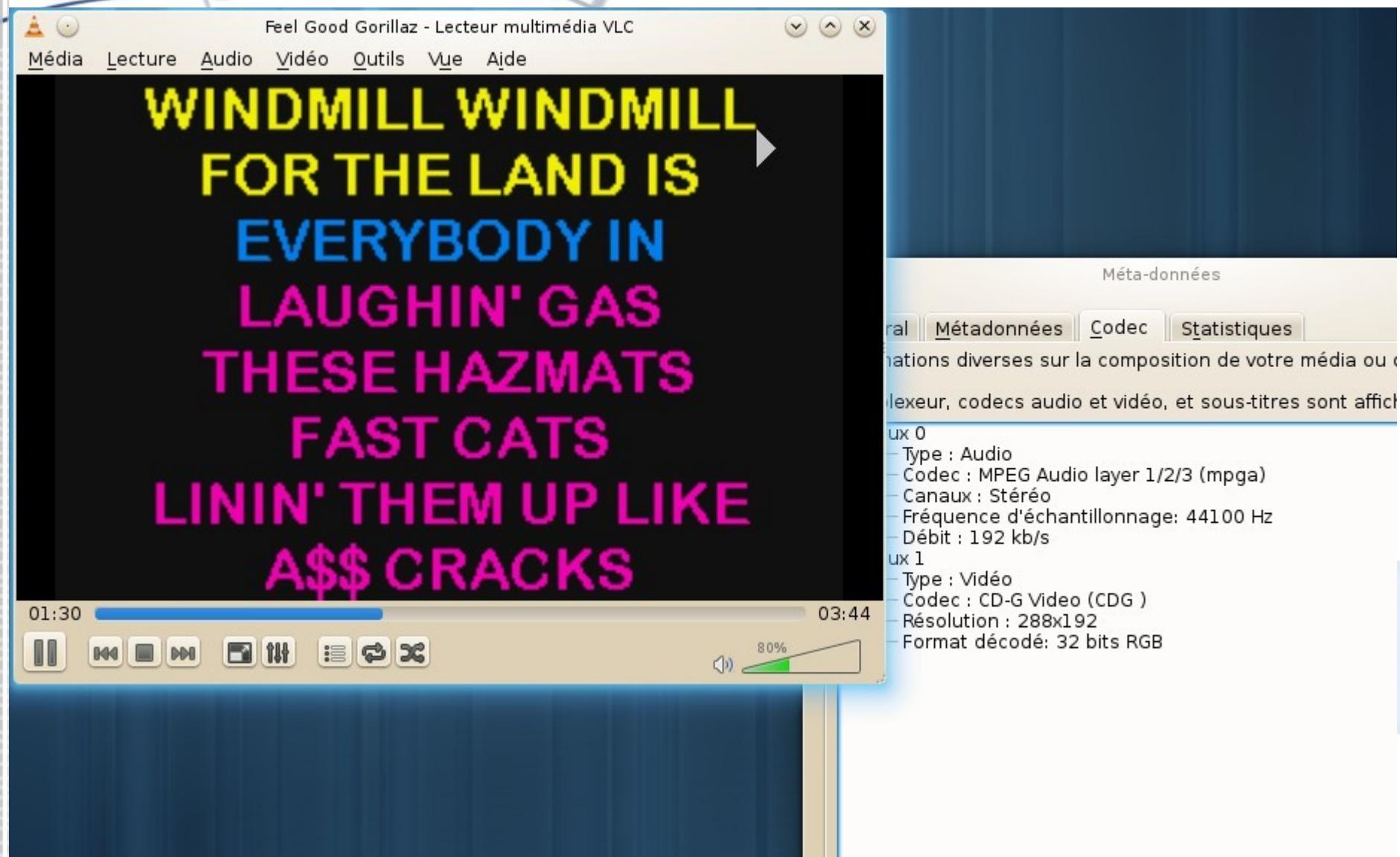


Wall Filter & netsync



Karaoke & MIDI

Videolan



Console & headless



~ : vlc
VLC media player 2.0.3

Source : /home/jb/VideoLAN/samples/mkv/[Coalgirls]_The_Melancholy_of_Haruhi_Suzumiya_-_The_Melancholy_of_Haruhi_Suzumiya_I_(1280x720_Blu-Ray_FLAC)_[4474F128].mkv
State : Paused
Position : 09:50/22:07
Volume : 51%
Title : 0/1
Chapter : 1/2

[Stream 0]
Type: Video
Codec: H264 - MPEG-4 AVC (part 10) (avcl)
Resolution: 1280x720
Frame rate: 23.976216
Decoded format: Planar 4:2:0 YUV

[Stream 1]
Type: Audio
Codec: FLAC (Free Lossless Audio Codec) (flac)

Channels: Stereo
Sample rate: 48000 Hz
Bits per sample: 16

[Stream 2]
Type: Audio
Codec: FLAC (Free Lossless Audio Codec) (flac)
Language: English
Description: 2.0 FLAC
Channels: 2
Sample rate: 48000 Hz
Bits per sample: 16

[Stream 3]
Type: Subtitle
Codec: SubStation Alpha subtitles (ssa)
Language: English
Description: English

[Stream 4]
Type: Subtitle
Codec: SubStation Alpha subtitles (ssa)
Language: English
Description: Songs + Signs

Information -

VLC media player

A screenshot of the VLC media player interface. On the left, the terminal window shows the command line and the properties of the video file being played. On the right, the main window displays an anime character, Haruhi Suzumiya, with her eyes closed and a slight smile, wearing a blue and white striped shirt. A subtitle at the bottom of the video frame reads "That's to be expected." The VLC logo is visible in the top right corner of the video window.

Libcaca

VideoLAN

Web interface



VLC media player - Web Interface - Mozilla Firefox

300trailer_cropped.mkv

00:01:20 00:01:46

26%

Loading flowplayer...
If nothing appears, check your internet connection.

VLC media player

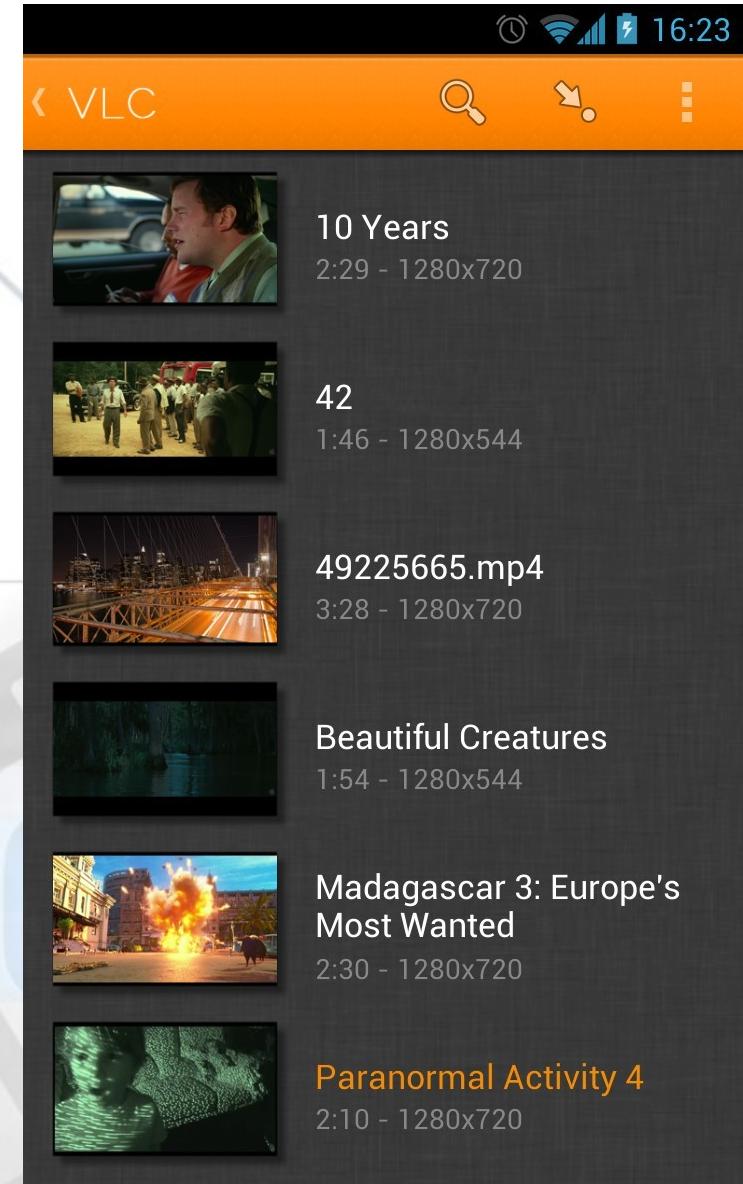
A screenshot of a Mozilla Firefox browser window displaying the VLC media player web interface. The title bar says "VLC media player - Web Interface - Mozilla Firefox". The main content area shows a video player interface for a file named "300trailer_cropped.mkv". The video progress bar shows 00:01:20 to 00:01:46, with a 26% completion indicator. Below the progress bar are standard media control icons (rewind, play, fast forward, volume, etc.). A large orange VLC media player logo is on the right. The video preview window shows a scene from the movie 300, featuring a close-up of a warrior's face with a helmet and armor. The text "Loading flowplayer... If nothing appears, check your internet connection." is displayed above the preview window. The bottom of the interface has a watermark: "VLC 2.1.0-git Rincewind - Lua Web Interface - [Mobile Interface](#) - Copyright © 1996-2012 the VideoLAN team".

VLC for Android



VLC for Android

- Released as Beta in July 2012
- Available on *Google Play*
- Plays all the files, streams that VLC for Desktop supports
- Requires Android 2.1 (*or later*)
- Hardware and multicore decoding
- Gestures and headphone control



VLC for Android



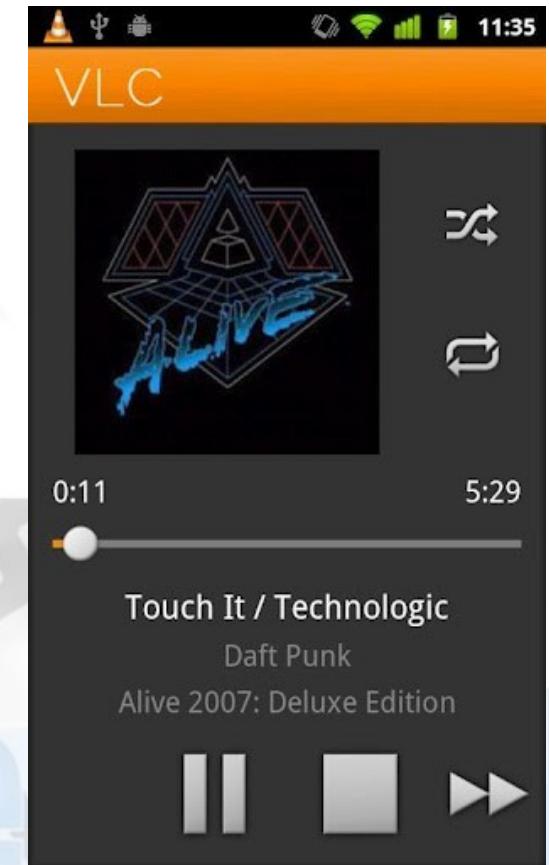
Full audio player

Media Library

- Automatically finds all the files on your device
- Search
- History

Recommended devices:

- Galaxy Nexus, HTC One X, Samsung Galaxy SIII, Nexus 4, Nexus 7

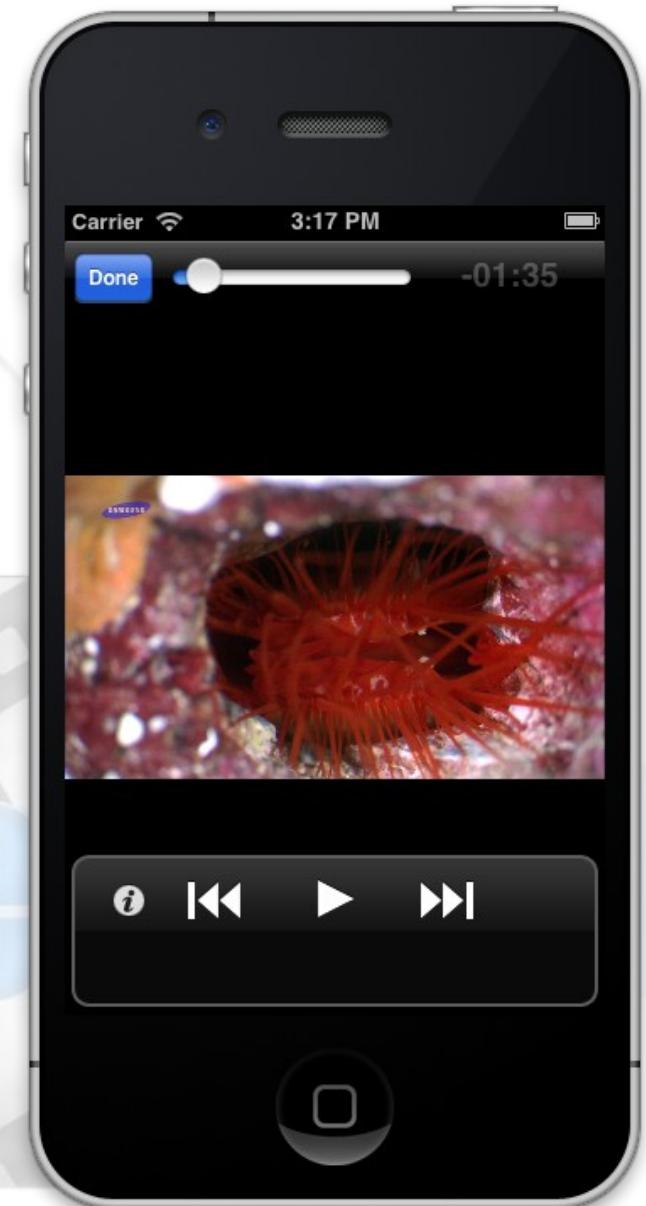


VLC for iOS



VLC for iOS

- Requires iOS 5.1 or later device
 - iPhone 3GS
 - iPad
 - iPod touch 3rd gen.
- No store
 - Compile it !
- No support

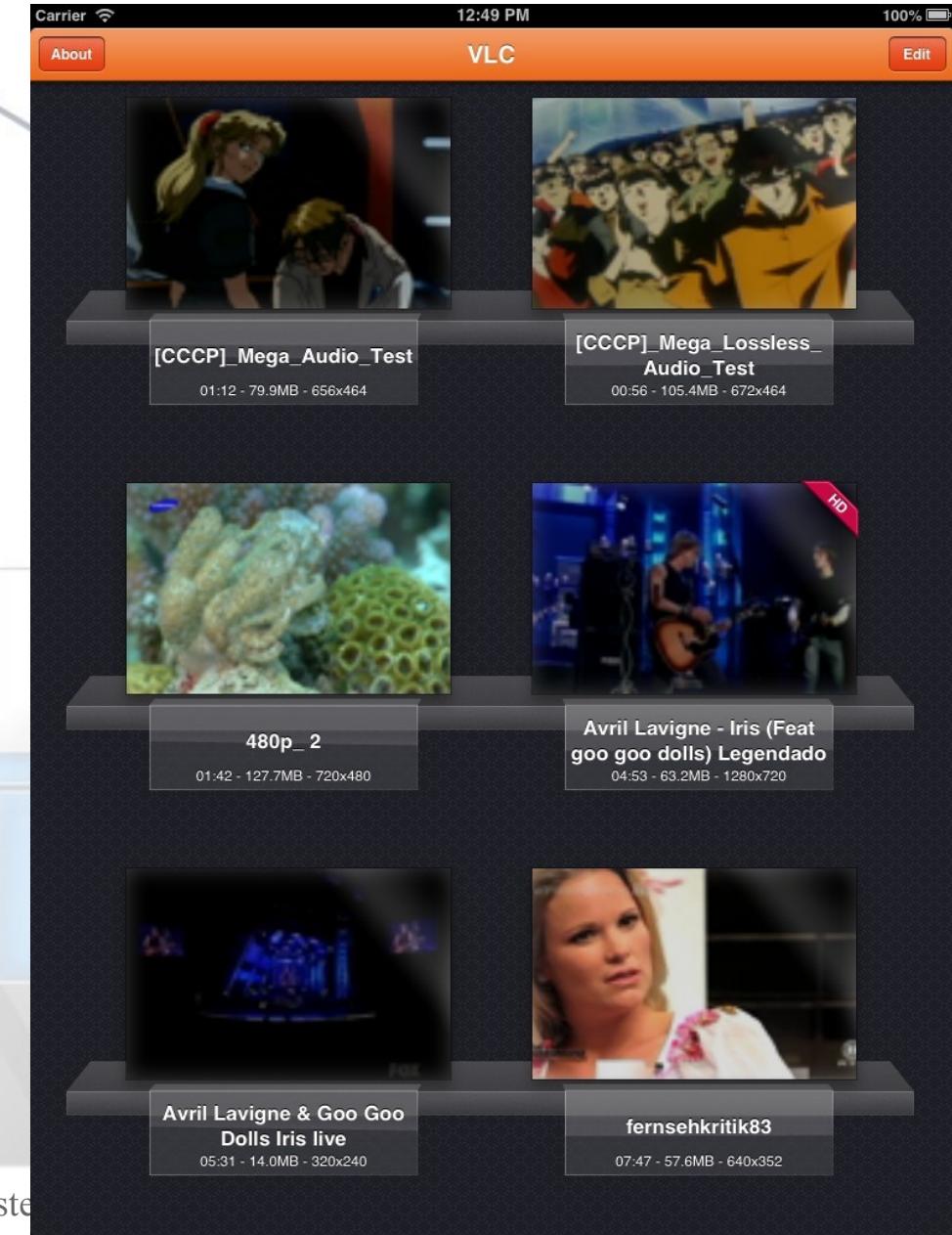


VLC for iOS



VLC for iOS features

- Faster
- Multi-core decoding
- OpenGL shaders
- Retina Display
- Higher audio quality
- 10bits support



Future projects



VLC for Mobile OS

- Win8 / WinRT / WP8
- ~~VLC for Firefox OS~~
- ~~VLC for Ubuntu Phone ?~~
- BB10 ?
- Chrome OS ?

Future projects



VLC on the Desktop

- › New audio core
- › Hardware acceleration on Mac
- › DCP / IMF
- › Adaptive streaming
- › 3D playback (*anaglyph*)
- › Media databases
- › Device integration

x262 / xvp8

- › Free and complete implementation of a MPEG 2 or VP-8 video encoder
- › Based upon x264 analysis



Thank You

Jean-Baptiste Kempf

jb@videolan.org