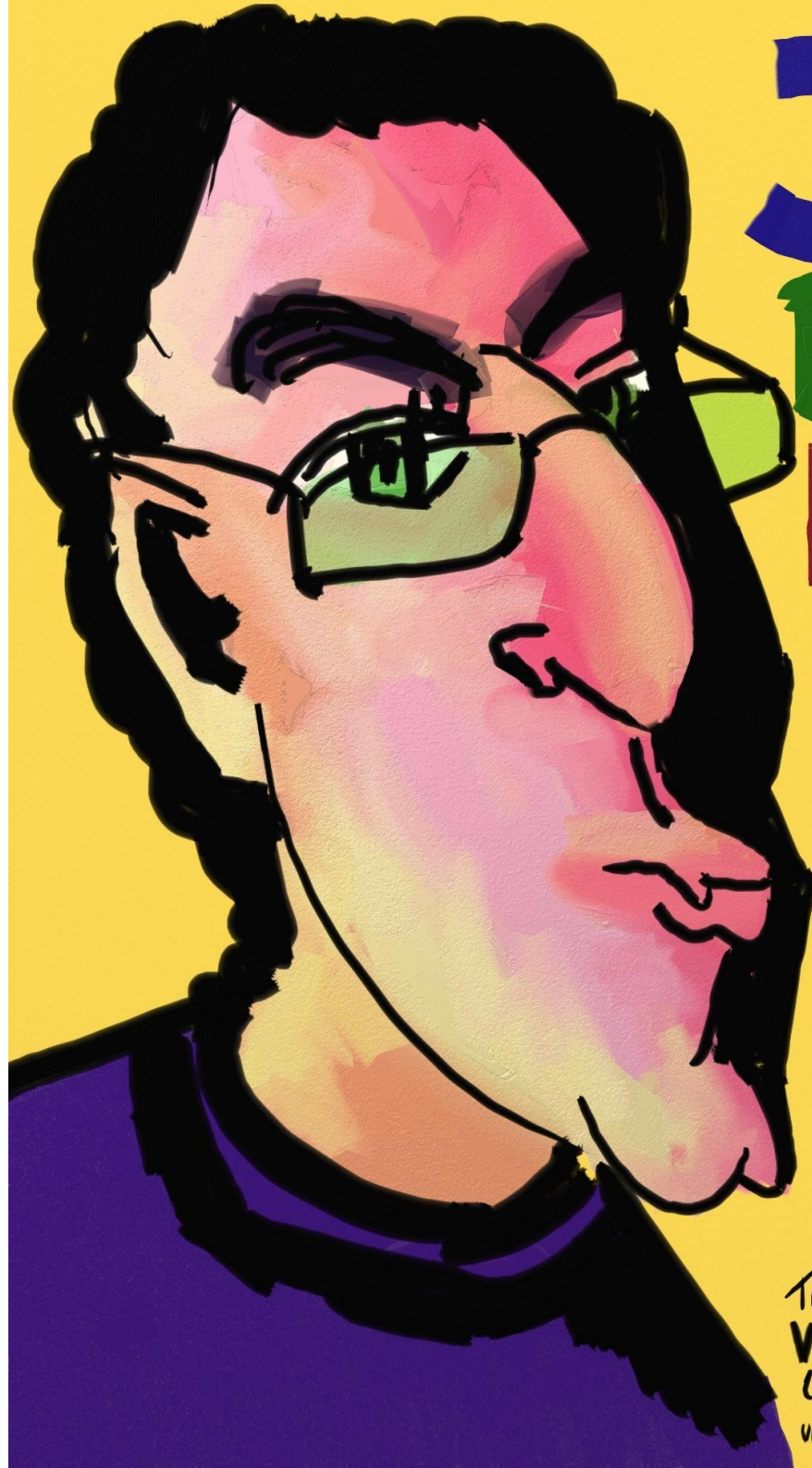




VideoLAN & VLC

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 (CC) ATTR
STAFF-A-LIKE



VideoLAN.org



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

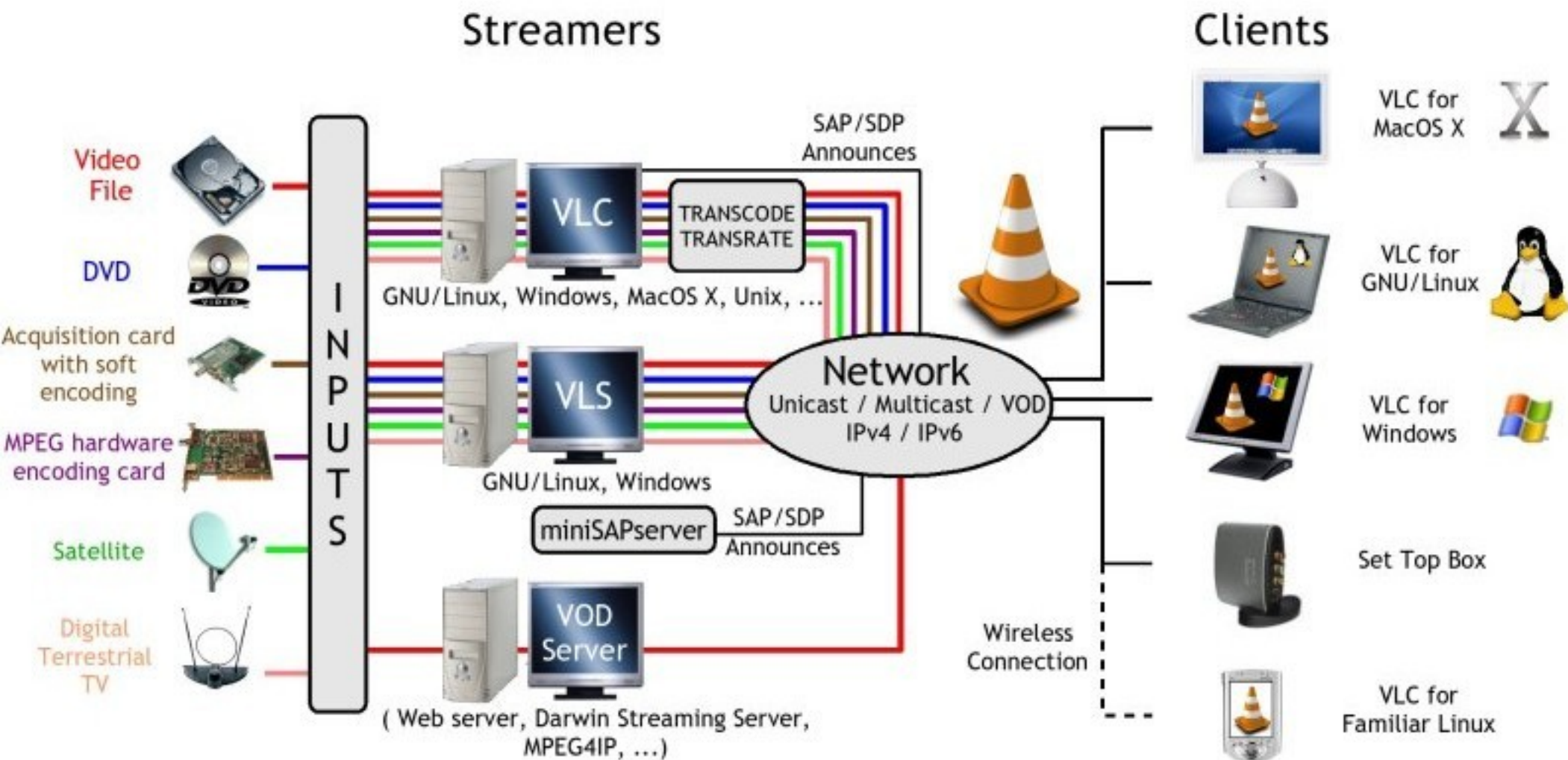


VideoLan Client, VLC media player, VLC
VideoLan Server, VLS (*dead*)
VLCS (*dead*)
libdvdcss (DVD CSS decryption)
libdts, libdca (DTS decoding)
x264 (H.264 encoding)
libdvbpsi (TS files management)
libdvdplay (*dead*)
libdvbcsa (dvb encryption decoding)
VLMA (VLC automation)
VLC Skin designer
libbluray, libaacs (BluRay playback)
DVBLast, Multicat (DVB streaming solution)
VLMC (Video editor)

Streaming Solution



VideoLAN 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

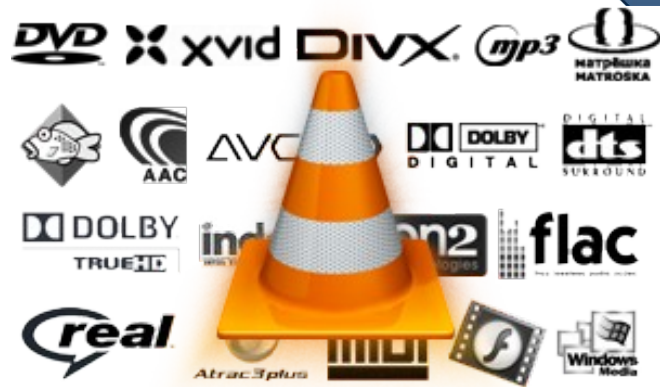
Contributors

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

Collaboration

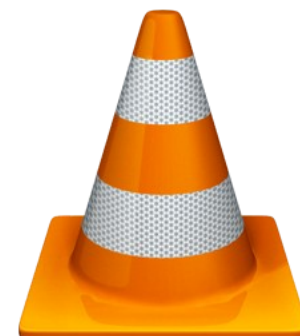
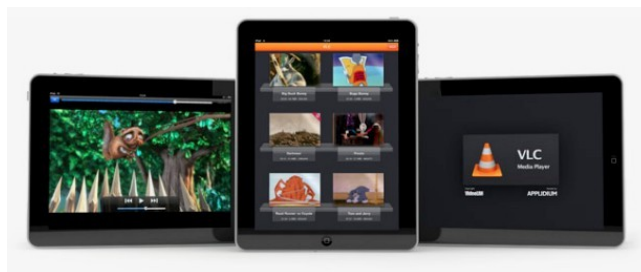
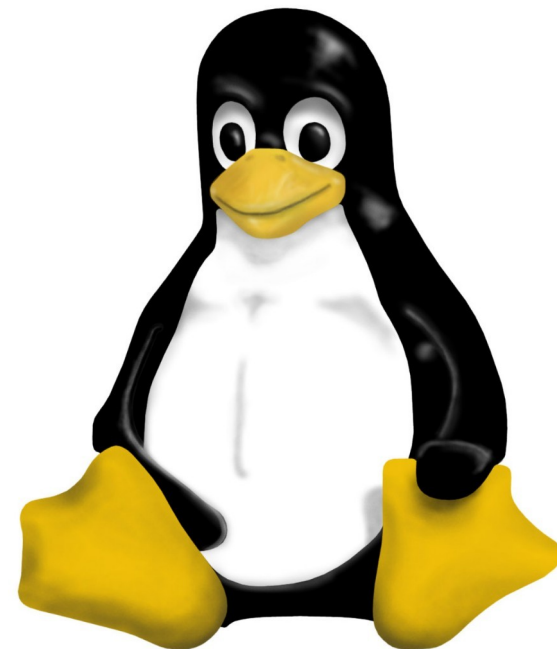
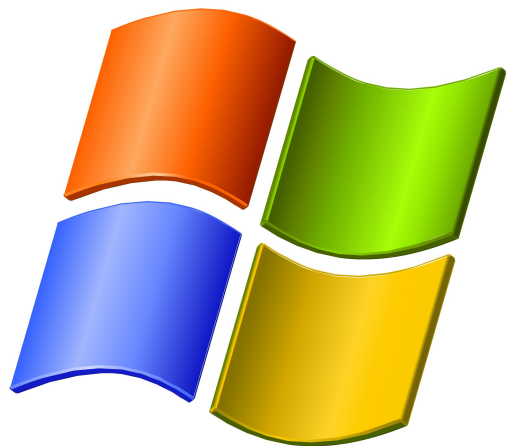
- Team meeting once per year
- Using git since early 2007
- Use of php, trac, phpBB and mediawiki
- IRC and Mailing Lists





VLC





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

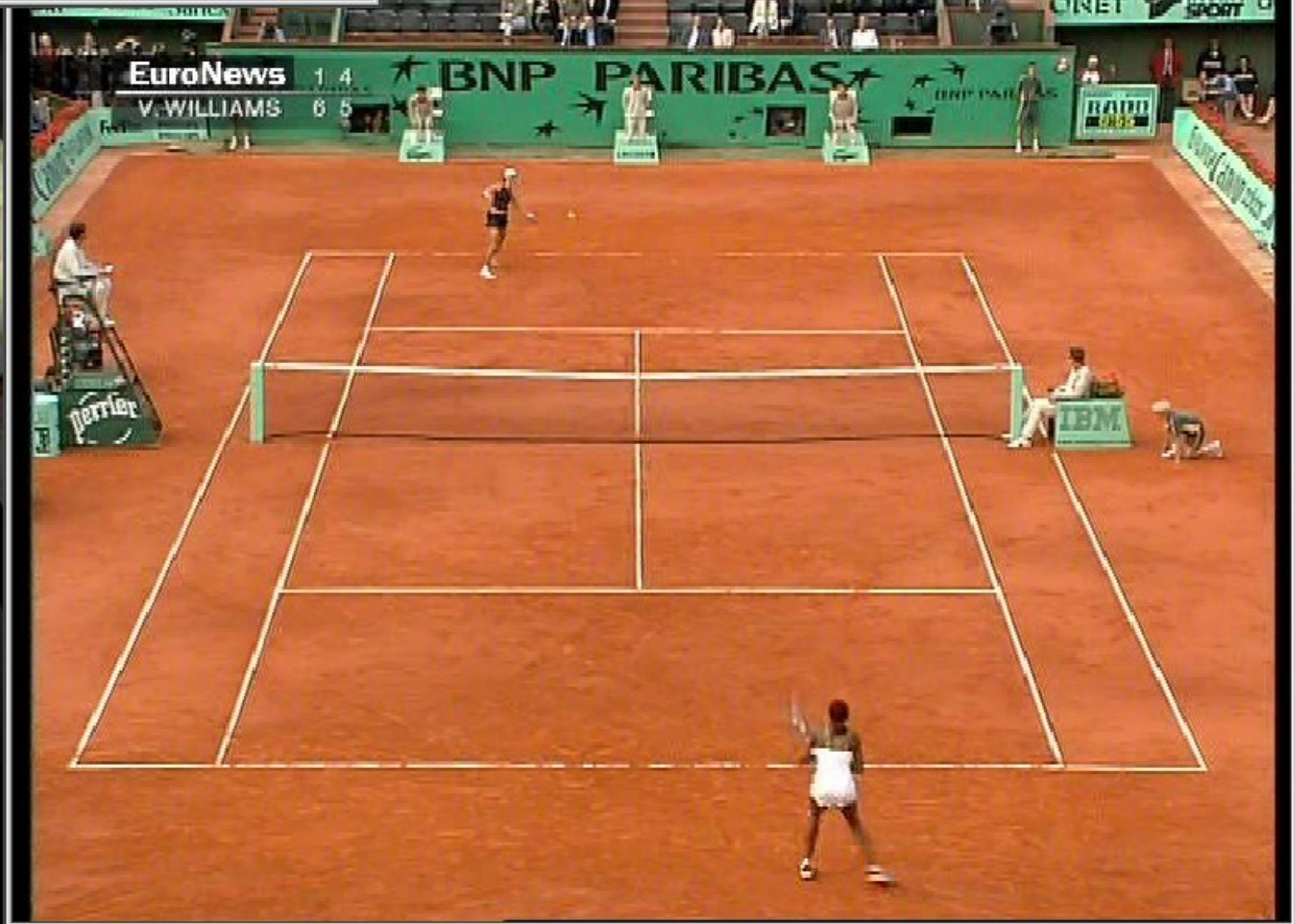
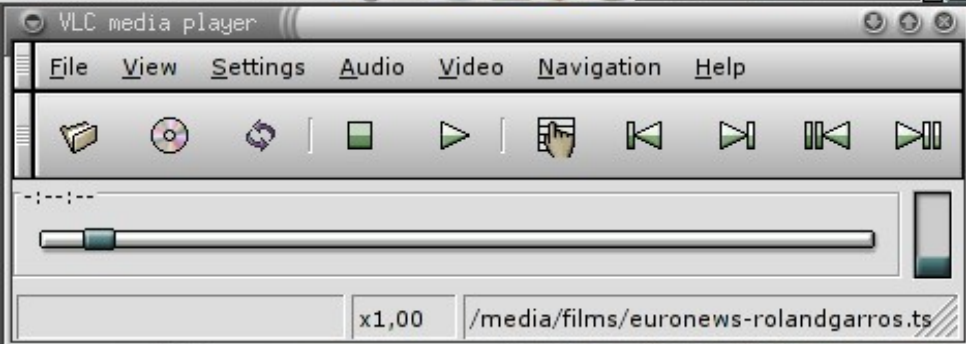
- Cameras, TV input, Satellite, ASI/SDI ...

VideoLAN Client



VideoLAN Client





- Volume Up ↑
- Volume Down ↓
- Mute ⌘ M

Channels ▶

Device ▶

✓ 0: Built-in audio controller (Stereo PCM)

dvdplay:///dev/rdisk1



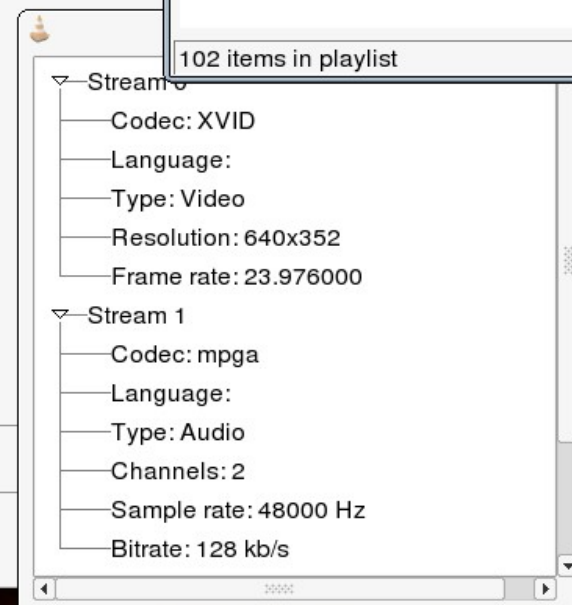
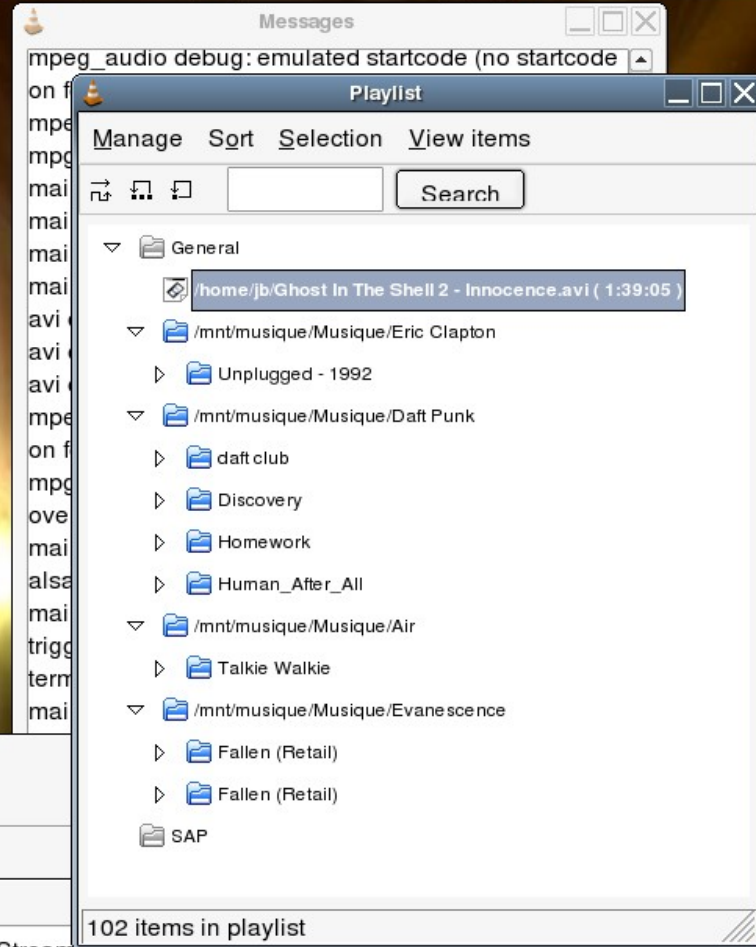
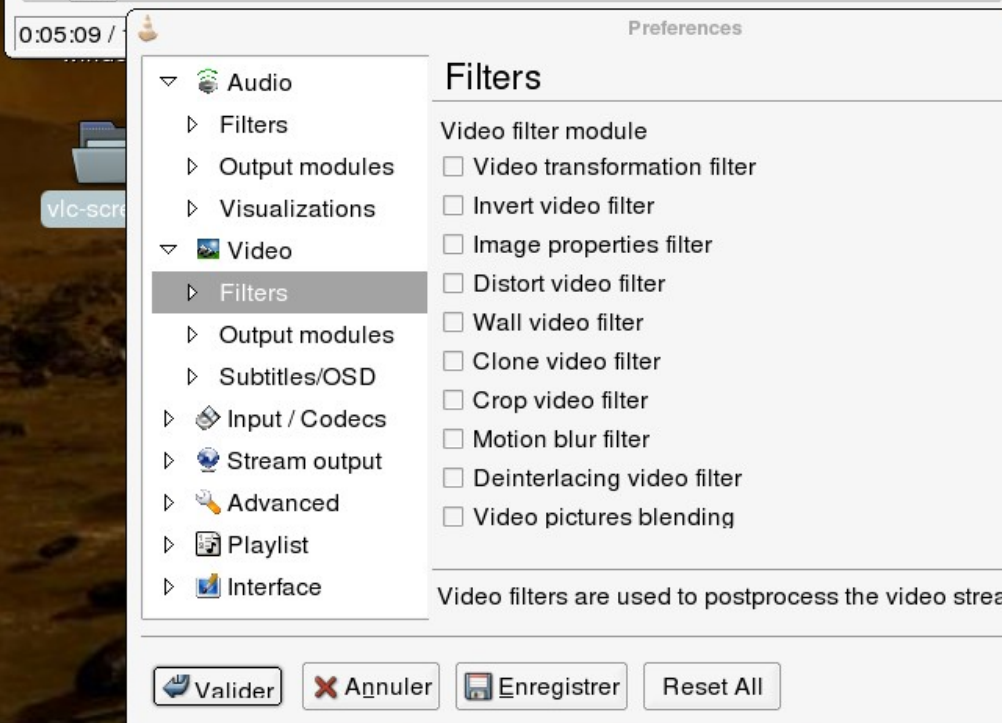
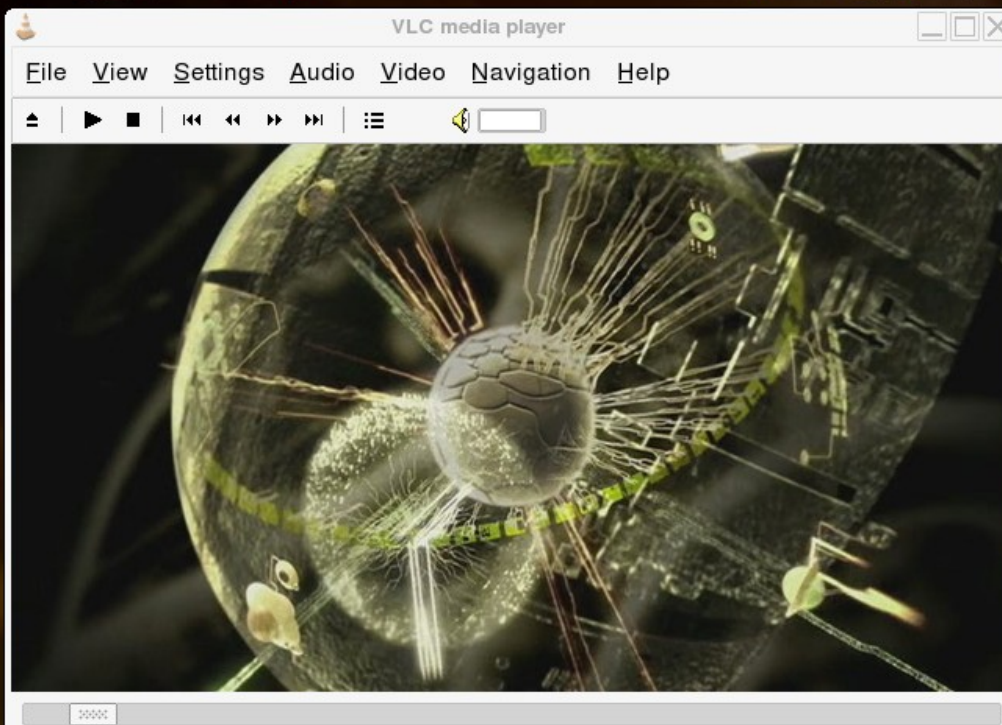
areva

artage

mporaire

AZZLED

age 1





Moneta



	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 [SAT][AR] Al Arabiya	--:--:--

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

Recher...

Récem...



Bureau

Système ...

MON PR...

SDATA2

Nom

Taille

Modifié

test.mkv

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

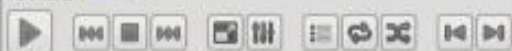
Annuler

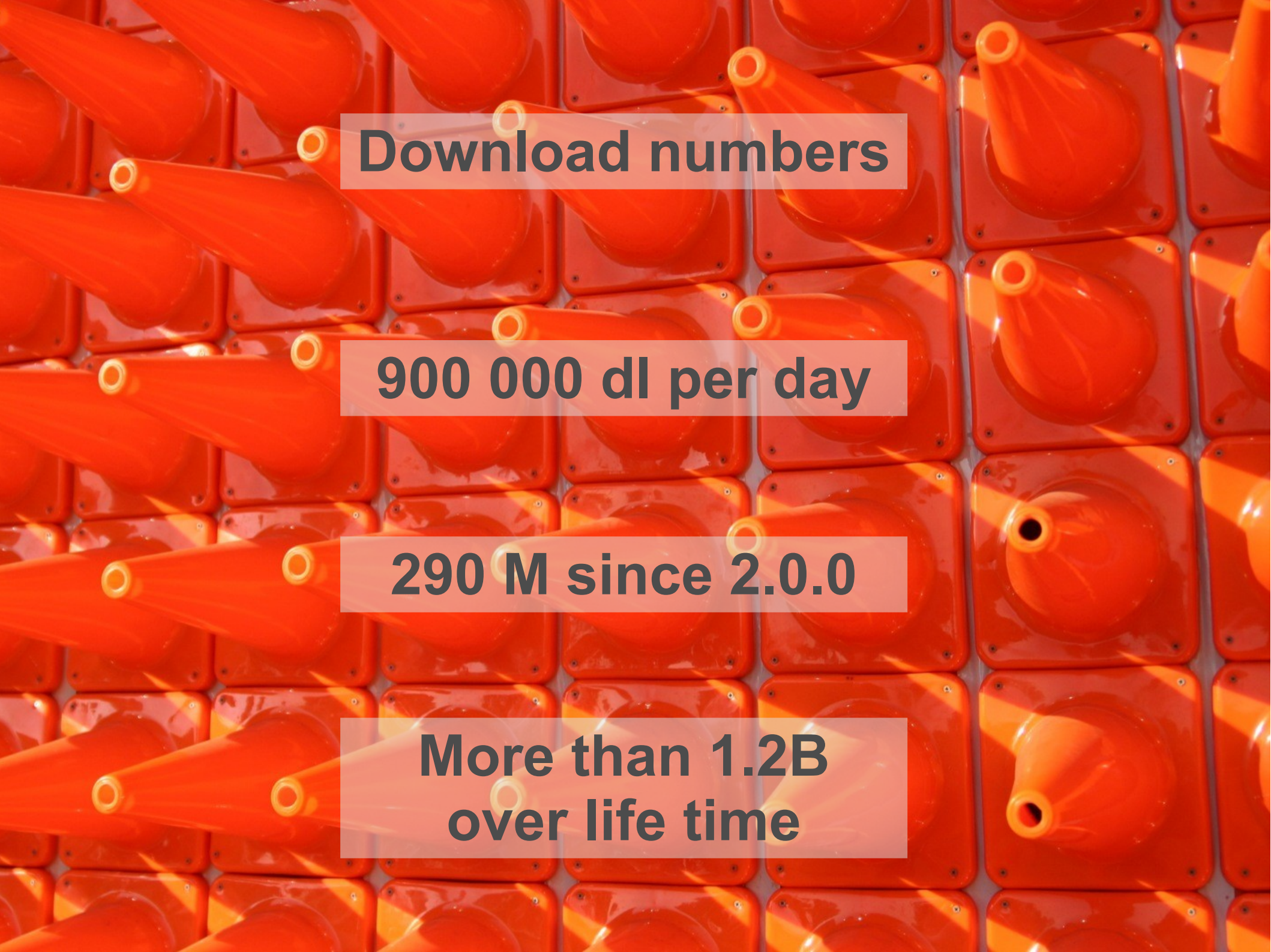
Ouvrir



00:31

21:59



The background of the slide is a dense, repeating pattern of orange traffic cones and square tiles. The cones are arranged in a grid-like fashion, with some pointing upwards and others downwards. The tiles are square and have a slightly raised, textured surface. The overall color scheme is a vibrant orange.

Download numbers

900 000 dl per day

290 M since 2.0.0

**More than 1.2B
over life time**



Freedom

libVLC license

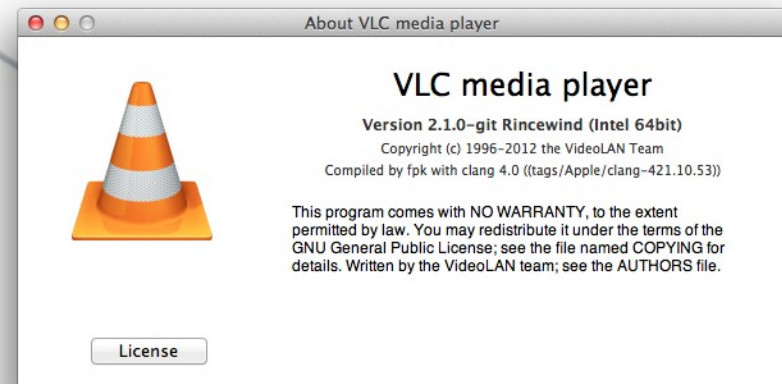
LGPL

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



Use it!

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

Report bugs

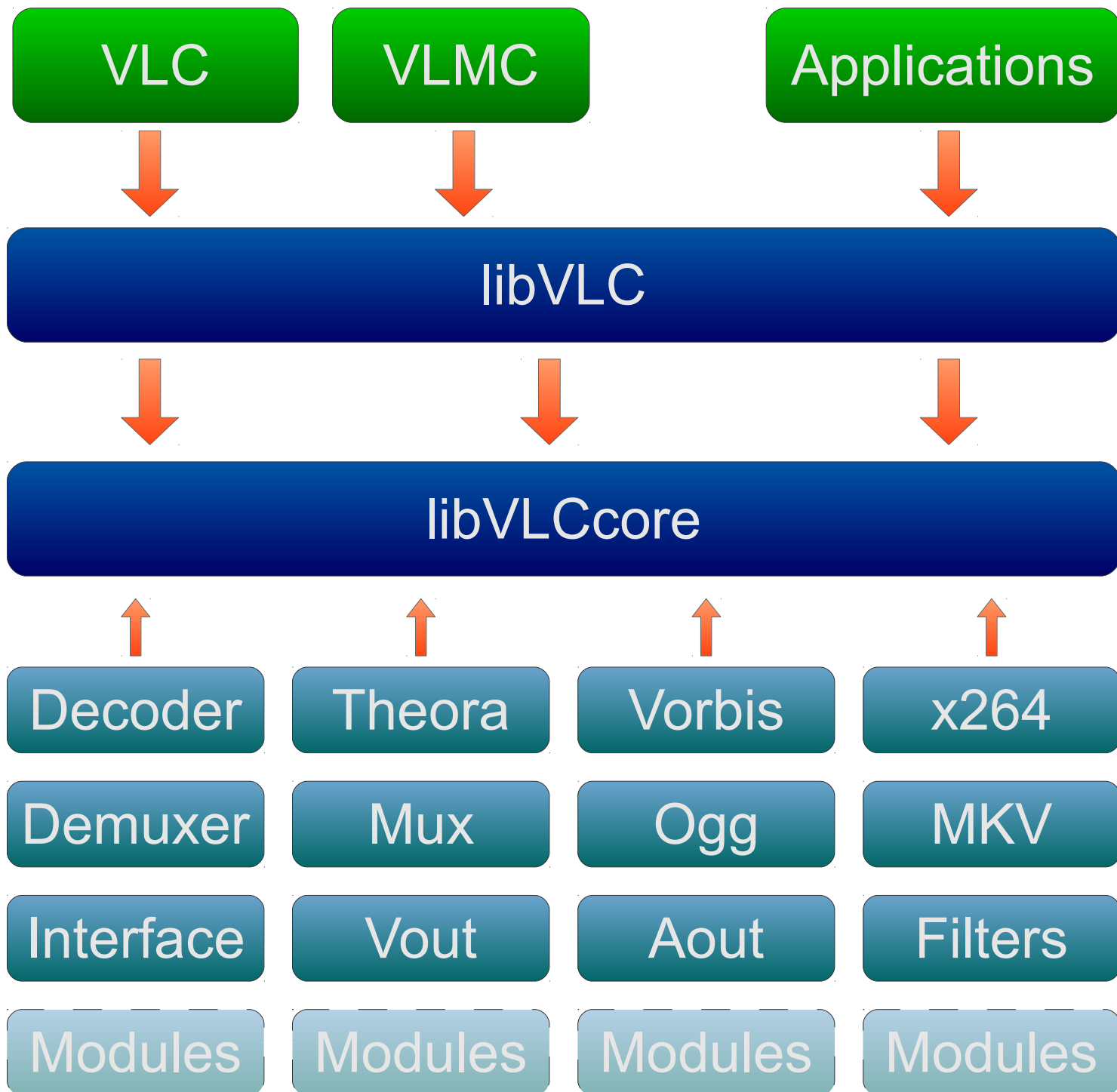
Translations

- 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.

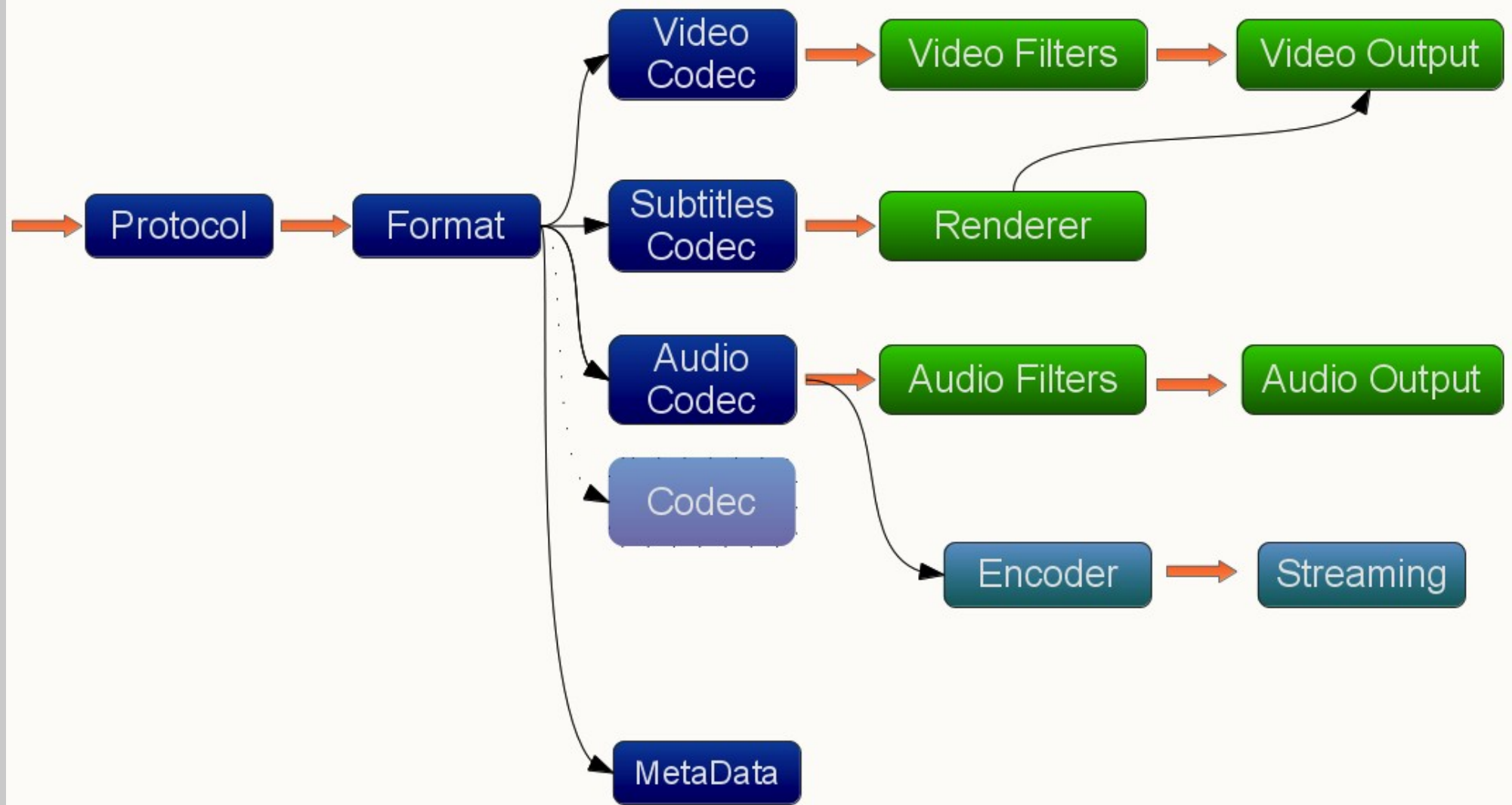
820,000 lines of code

- 120k in the core
- 700k for modules

80 external librairies

- 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



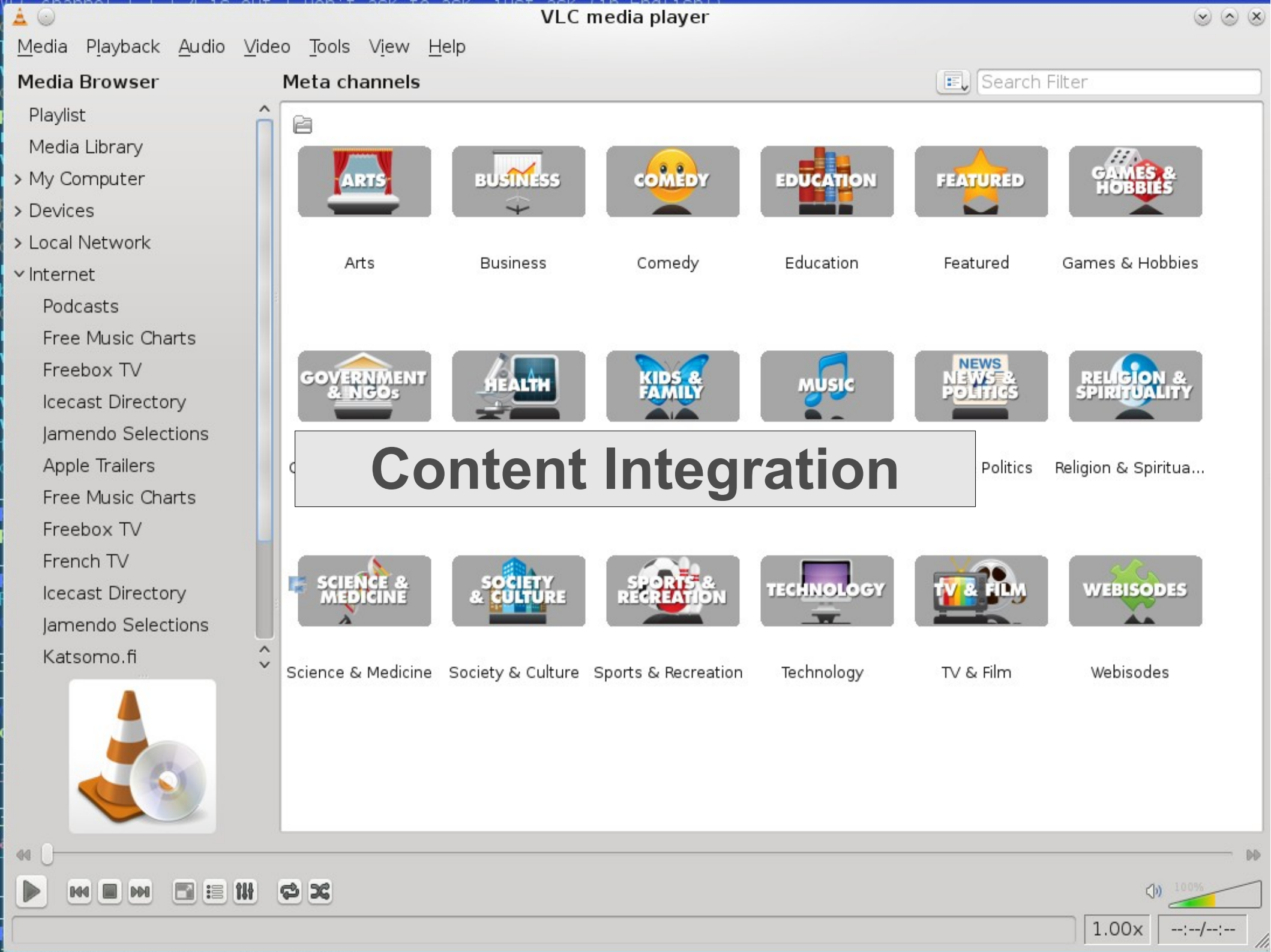
- What you don't know about VLC
 - Transcoding, Streaming
 - latency
 - Mosaic/PiP generation
 - Wall display
 - Screencasting
 - TS encryption and decryption (DVB-CSA)
 - DVD and CD ripper
 - Headless versions
 - Karaoke, Midi, hardware decoder
 - Scriptable and extensions
 - Modules

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



VLC's screen casting



2956389/28199373*56044200 - Google Search - Mozilla Firefox

www.google.com.br/search?q=%3D2956389%2F28199373*56044200&it Google

Comic VideoLAN The VideoLAN For... Project codes of c... Marque-pages

Download Statistics: All Files https://source...te=2012-12-30 2956389/28199373*56044200

Images Maps Play YouTube Gmail Documents Calendar Orkut More -

2956389/28199373*56044200 Sign in

About 0 results (0.08 seconds)

Rad sin⁻¹ cos⁻¹ tan⁻¹ π sin cos tan e x^y x! √ ln log

Ponto Alegre - Rio Grande do Sul Change location Show search tools

Advanced search Search H Google Home Advertising

Lecteur multimédia VLC

Média Lecture Audio Vidéo Outils Vue Aide

2956389/28199373*56044200 - Google Search - Mozilla Firefox

www.google.com.br/search?q=%3D2956389%2F28199373*56044200&it Google

Comic VideoLAN The VideoLAN For... Project codes of c... Marque-pages

Download Statistics: All Files https://source...te=2012-12-30 2956389/28199373*56044200

Images Maps Play YouTube Gmail Documents Calendar Orkut More -

2956389/28199373*56044200 Sign in

About 0 results (0.08 seconds)

Rad sin⁻¹ cos⁻¹ tan⁻¹ π sin cos tan e x^y x! √ ln log

Ponto Alegre - Rio Grande do Sul Change location Show search tools

Advanced search Search H Google Home Advertising

Cones - Dolphin

Aller Outils Configuration Aide

Chercher Aperçu Scinder

> Dossier Personnel > VideoLAN > comm > Design2 > Cones

Cone-Forum-large.png Cone-Input-large.png

Cone-List-large.png Cone-Shortcuts-large.png

Cone-Video-large.png day-of-the-cones-ex2.jpg

9 fichiers (1,2 Mio) 5,4 Gio libre(s)

00:00 00:00 80%

Cones - Dolphin 2956389/28199373*56044200 - Google Lecteur multimédia VLC 08:26

Mosaic



Picture in Picture



Dual webcam with alpha mask:



Wall Filter & netsync



The Melancholy of Haruhi
Aide



Karaoke & MIDI



The screenshot shows the VLC media player interface. The main window displays a video with the following lyrics in large, colorful, pixelated text:

**WINDMILL WINDMILL
FOR THE LAND IS
EVERYBODY IN
LAUGHIN' GAS
THESE HAZMATS
FAST CATS
LININ' THEM UP LIKE
A\$\$ CRACKS**

The video player shows a progress bar from 01:30 to 03:44. Below the video, there are playback controls (play, stop, previous, next, full screen, playlist, extended settings, repeat, shuffle) and a volume slider set to 80%.

Overlaid on the right side of the VLC window is a "Méta-données" (Metadata) window. It has tabs for "Général", "Métadonnées", "Codec", and "Statistiques". The "Métadonnées" tab is selected, showing the following information:

Informations diverses sur la composition de votre média ou de ses sous-titres. Les codecs audio et vidéo, et sous-titres sont affichés.

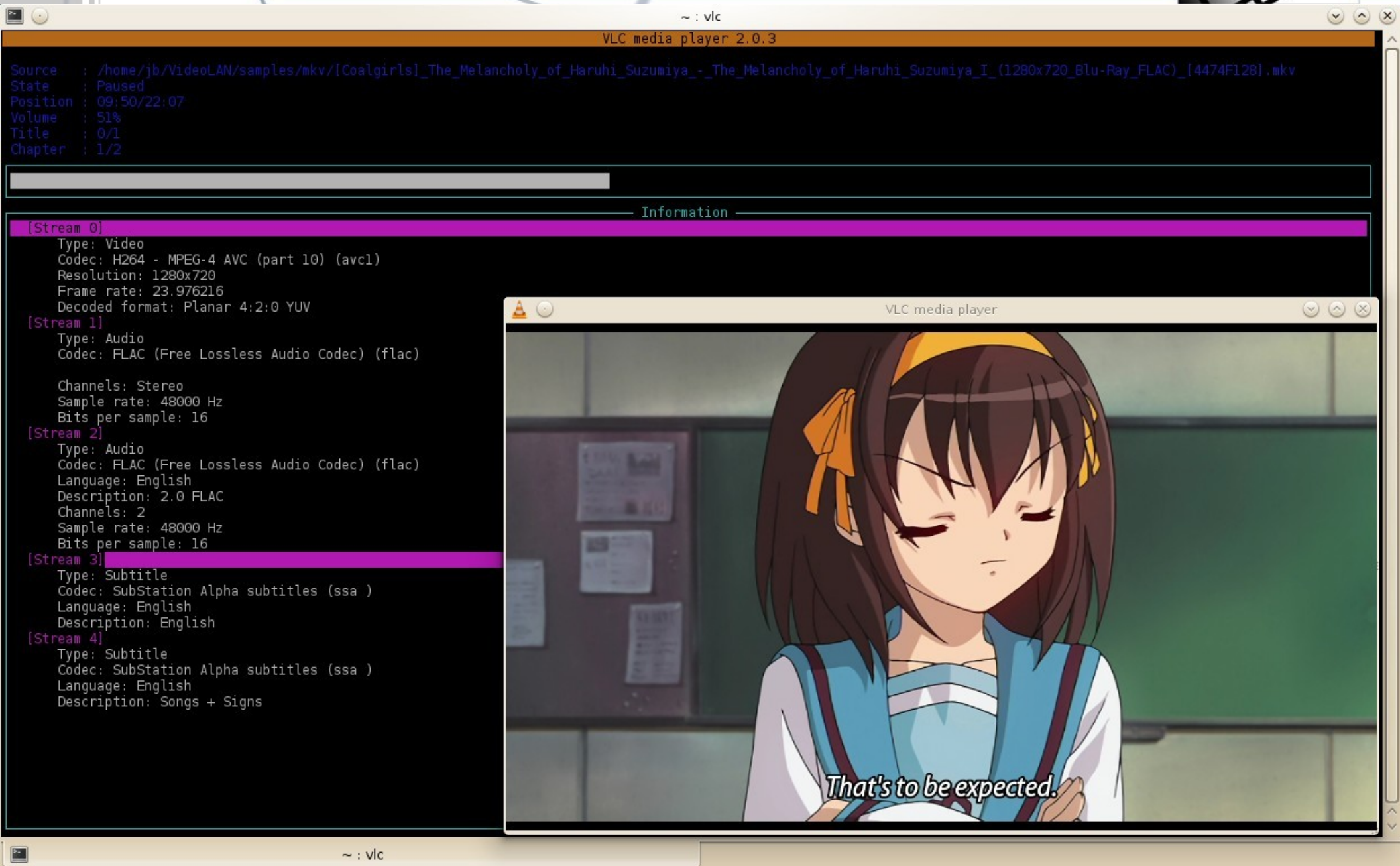
Flux 0

- Type : Audio
- Codec : MPEG Audio layer 1/2/3 (mpga)
- Canaux : Stéréo
- Fréquence d'échantillonnage: 44100 Hz
- Débit : 192 kb/s

Flux 1

- Type : Vidéo
- Codec : CD-G Video (CDG)
- Résolution : 288x192
- Format décodé: 32 bits RGB

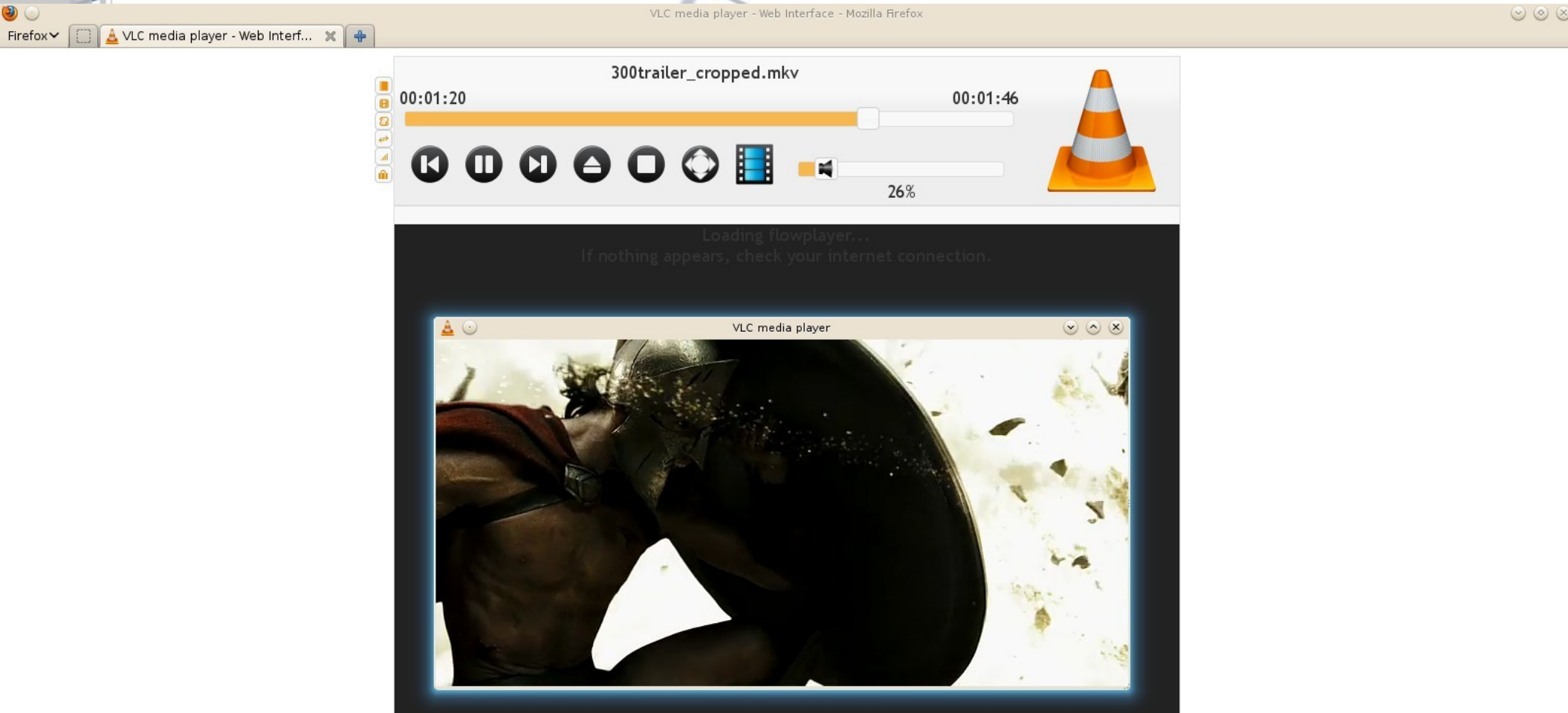
Console & headless



Libcaca



Web interface



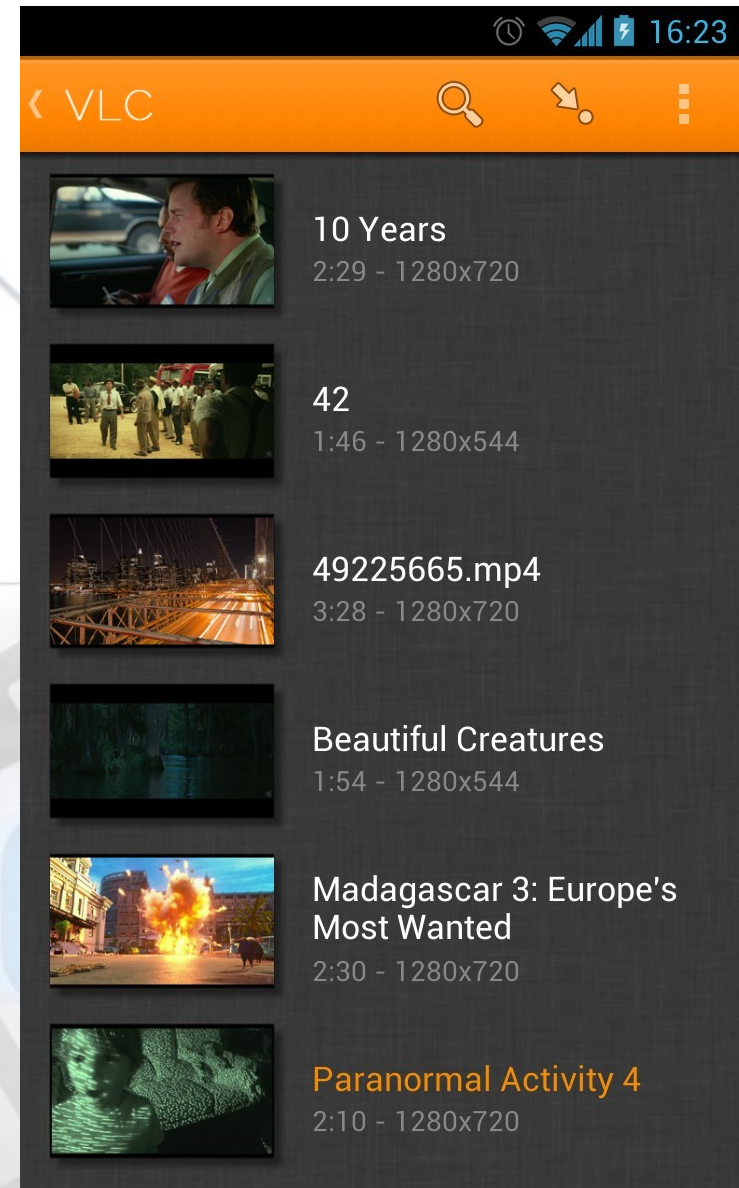
VLC 2.1.0-git Rincewind - Lua Web Interface - [Mobile interface](#) - Copyright © 1996-2012 the VideoLAN team

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



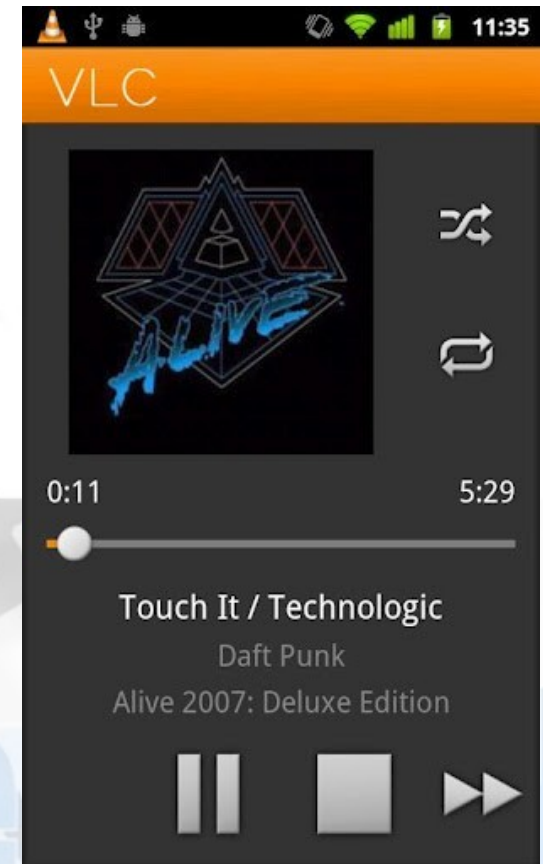
Full audio player

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

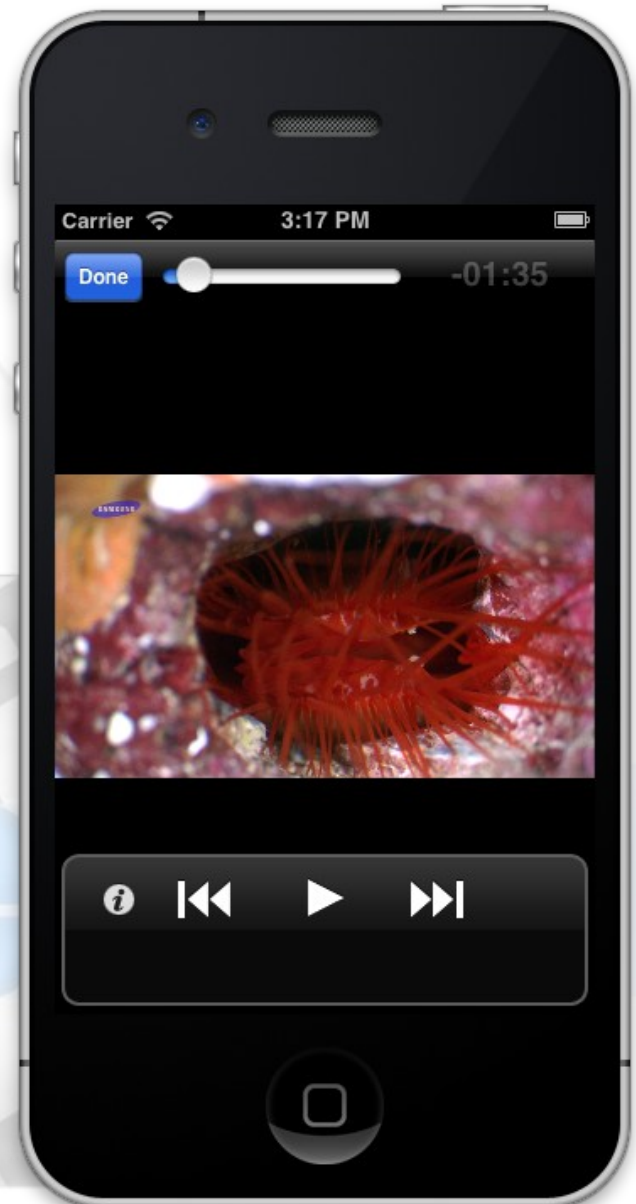


VLC for iOS



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



VLC for Mobile OS

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

Videolan

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

A full-page background image showing a sunset over a body of water. The sun is low on the horizon, creating a bright orange glow that reflects on the water's surface. The sky is filled with dark, dramatic clouds, some of which are illuminated from below by the sun, creating a mix of orange, yellow, and blue tones. The water in the foreground shows gentle ripples and reflects the colors of the sky and sun.

Thank You

Jean-Baptiste Kempf

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