VLC 3.0

3.0.x…
• **Vetinari**
  • 18000 commits
    - 3600 Android
    - 2800 WinRT
    - 2300 iOS
  • A bit long to come (!)
• One **very** strong release
• Focus on Mobile convergence, as announced, previously
• **libVLC**, and **libVLC++**, and bindings
• 1900+ bugs closed
3.0 highlights

- **HW decoding** on by default everywhere
- **360 video** and **3D Audio**
- Network shares browsing (+passwords)
- Common codebase
- **10bits** / **12bits** / **HDR** support
- Audio **HDMI** rework passthrough
- **HTTP/2**
- Lots of new formats (adaptive, subtitles)
- OpenGL and Wayland (*part 1*)
- New subtitle rendering stack
- **Chromecast**
200+ million
89 for 3.0.4
4.0
FOSDEM 2019 promises

- New input/playlist
- Media Library
- Interface
- New video output architecture
- VR/3D
- Dropping old platforms
Otto Chriek

- New input/playlist
- Clock
- Media Library
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360 in 3.0

• 360 video
  - Equirectangular
  - Cubemap

• Platforms
  - OpenGL *(Everywhere)*
  - D3D11 *(but Windows)*

• 3D Audio
  - 3\textsuperscript{rd} order ambisonic
  - libspatialaudio
  - Ambisonic + binaural
VLC VR/3D

- Desktop HMD
  - Vive, Oculus, PSVR, WMR
  - Windows, Linux, Mac
  - R-E by OpenHMD

- Mobile
  - Android, iOS?
  - 3D
  - Nvidia, HDMI
Input Manager

- Input Manager → Player
  - Good ongoing work *(almost merged)*
  - Owner of the resources
  - Privatizing numerous APIs
    - *input_item, input_thread, input_*
  - libvlc_media_player & input, vlm sharing
    - libVLC and libVLCcore similarity
  - Events simplification
  - Gapless ready
• Input Manager
  – Split between playlist and input manager
  – Owner of Aout and Vout
  – Identical for playlist, vlm, libvlc_media_player
  – Gapless (!)

• Rewrite of the playlist
  – Simple (flat, fast)
  – 1 ↔ 1 relation with IM
  – *Powers also libvlc and VLM*
Clock

- Current Clock of VLC
  - Input-PCR controlling

- New Clock
  - Main clock
    - Monotonic clock of the CPU
  - Master clock
    - Audio, SDI, network, PCR...
  - Slave clock
    - Video, Subtitles,...

- Code
  - We understand it!

- Gains
  - Frame accuracy
  - No resampling
  - Better synchro
  - V-Sync, HMD,
Video Output

- Video Output changes
  - push instead of pull model
    - HW are now smarter
    - Rewrite of all video outputs :-)  
  - More recycling
  - Support for 3D/VR
  - More HDR

- Video Filter API
  - Finally!
• Media Library
  - Used on Android
  - coming to the desktop & iOS

• Details
  - C++ & SQLite
  - Simple & Light
  - Audio + Video
  - Playlists
  - Distant Shares index
• VLC UX/UI
  - UX OK, UI, not so much
  - Gnome, KDE Plasma 5, Windows 10

• 2 main use cases
  - Play from Explorer, Nautilus, Dolphin, Finder to launch VLC
  - Open VLC to find a media

• Discussions ongoing
  - Actual screenshots
DO NOT SCREAM
Der aktuelle Vodafone-Song: „Strangers“ von Sigrid
A Momentary Lapse Of Reason

By Pink Floyd - 2011 - 00:03

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More screaming

- Disable Media Library
  - Fast to start
- Enable the menus
- Gnome and KDE adaptations
- CSD and SSD
- Wayland & x11
• More Features
  - Wayland actually working
  - UPnP Rendering, AirPlay output, like ChromeCast
  - HEIF, Dash/Webm, TTML images, AV1 encoding, WebVTT encoding
  - SDI as stream output
  - SMBv2/v3
  - RIST (in and out)
Dropping Platforms

- Windows
  - XP, Vista
- MacOS
  - 10.7 → 10.10
- Linux
  - OpenGL required
- Android
  - 2.2 → 4.2
- iOS
  - iOS 7, 8
Thanks! Questions?