# Your New Lib-Ray Disk

Thank you for purchasing (or watching) a Lib-Ray formatted disk. By doing so, you are supporting free and open standards for media distribution! Lib-Ray disks contain no "Digital Rights Management", "Region Coding", or "Copy Protection" anti-features, nor do they carry any encryption software or malware designed to interfere with your player or computer. They are based on a simple combination of free-software, patent-free codecs (Ogg Theora, FLAC, Vorbis, and Kate) and internet standards, including HTML5 and SRT.

## Viewing the Disk

Ideally, on a properly configured, completely Lib-Ray compliant system, playback will be as simple as with DVD or Blu-Ray: simply insert the disk and when the menu comes up, press "Play" on your remote (or click "Play" with your mouse on a computer). We hope this will be true for Lib-Ray in the near future.

However, at the time of writing, there is no system which can quite do that, so you may need a little help to get started.

#### Using the Chromium Browser (Version 6+)

If you are viewing on a computer system with the Chromium browser, basic menu and playback features are supported. You will need a 1920x1080 ("Full HD") display to properly display the movie. To start playback, you will need to insert the disk and open the "index.html" file in the root directory in Chromium and display it in "fullscreen" mode.

Using a graphical file browser:

- Insert the disk
- When prompted, select "Open in File Manager"
- Right click on "index.html"
- Select "Open with..."
- Select "Chromium Web Browser"
- Press F11 to switch Chromium to Fullscreen mode
- Click on "Play" or press "Alt+P" to start the movie
- If you want to stop the movie, press "Alt+Q" and you will be returned to the menu

Alternatively, you can launch the program directly into fullscreen mode from the command line, like this:

The Chromium browser is called "chromium-browser" on some Debian GNU/Linux systems (as used in the command above). On other systems, it may be called simply "chromium" ("Chromium" is also the name of an older free software computer game). Of course, you could also write a bash script or use the KDE Menu Editor to create a short cut for launching Lib-Ray disks from your disk drive, using this same command.

#### Playing Without Chromium Using VLC

First of all, do realize that Chromium is free-software and can be downloaded. It has the most complete support for the HTML5 features used in Lib-Ray at the time of this writing, which is why we recommend it.

Other browsers may be able to support many if not all of the menu features needed by this disk. Notably, however, Mozilla-based browsers do not work properly because they do not fully support the "SessionStorage" mechanism (look at the Lib-Ray Developer's Guide if you want to know more about what's needed). However, most of the disk's special features content can be viewed with almost any web browser.

To watch the film using your favorite Ogg Theora-compatible native video player, you can browse directly to the media file and play it.

For example, using VideoLAN Client (VLC), you can watch the movie like this:

- Insert the disk
- Respond to the prompt by asking for the disk to be opened in a file manager
- Browse onto the disk, and then into the "Media" folder
- Right click on "feature.ogv"
- Select "Open with..."
- Pick "VLC Media Player"
- The film will begin playback immediately

If necessary, you can press the "Esc" key to minimize the playback window or close it. You can restart the film in a window by clicking on its name in the playlist. This may be useful if you want to set the audio or subtitle options. VLC can also resize the video to fit your screen or to play in a window, so it can also serve as a work-around for smaller or larger monitors.

#### Accessing Alternate Audio and Subtitle Tracks in VLC

Due to limitations in the Chromium browser, these features are not yet supported when playing the movie under Chromium (later versions of the browser will hopefully fix this as additional features of the HTML5 draft standard are implemented).

For now, the best solution is to follow the directions above for viewing the media file with a native video player. We have had excellent results playing back the media in VideoLAN Client, so we recommend that as the simplest choice.

In VLC, the "Audio->Audio Track" will give you a numbered list of audio tracks. Track #1 on Lib-Ray version 0.2 disks will be a Vorbis-encoded stereo soundtrack for the film (this is currently required in order for playback in Chromium to work properly). Track #2 should be the (lossless) FLAC stereo track, which may sound a little better when playing in VLC (you may not notice the difference – the Vorbis track will typically be of high-quality too). Additional tracks should be documented on the "Setup" or "Audio" menus in the disk's menu interface. You can expect to find alternate language versions and/or commentary tracks.

The "Video->Subtitles Track" option will give you access to the available Ogg Kate subtitles encoded into the video file. Unfortunately, the number of tracks that can be provided is limited – not by VLC, but by Chromium. We have to keep the number of streams low so that Chromium playback will work. So, the subtitles intended for playback within the Chromium browser are provided by separate SRT files – and of course those don't work yet.

However, if you select "Video->Subtitles Track->Open File" from within VLC, you will be presented with the available SRT subtitle files that are provided for future Chromium support. VLC can use these. Open the appropriate file (the two-letter ISO-639 language code will be part of the filename). For example, on the "Sintel" prototype disk you can open the file "sintel\_ru.srt" and get subtitles in Russian – which is not included in the Ogg Kate embedded subtitles.

#### Hardware Players

At the time of writing, there are no embedded hardware players (i.e. the analog to dedicated DVD or Blu-Ray players). Unless and until Lib-Ray becomes a very widespread format, it is unlikely that manufacturers will support it (though we can hope!). So we have focused on supporting playback on Home Theater, Desktop, and Laptop PCs.

However, as "digital convergence" devices become more ubiquitous and computer hardware prices drop, it is likely that inexpensive HTPCs will become available to serve some users who would otherwise get embedded players. For example, the "Boxee" HTPC may be able to support Lib-Ray with some software updates (and an external disk drive).

### Flash and Other Media

Although in this document and elsewhere we refer to the "Lib-Ray disk", it may actually be stored on flash media or stored on a hard drive. This should not make any real difference to the instructions, although the path to the content will be different.

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