# DiskPlay

Manual

Table Of Contents

1. Introduction

DiskPlay is a standalone application aiming to enhance digital vinyl systems by adding visual cues of traditional vinyl.

1.1 About the System

There are 3 software-components included in DiskPlay:

- DiskPlay Application

- Cuepoint-Feed Application

- Info-Broadcast Quartz Composition
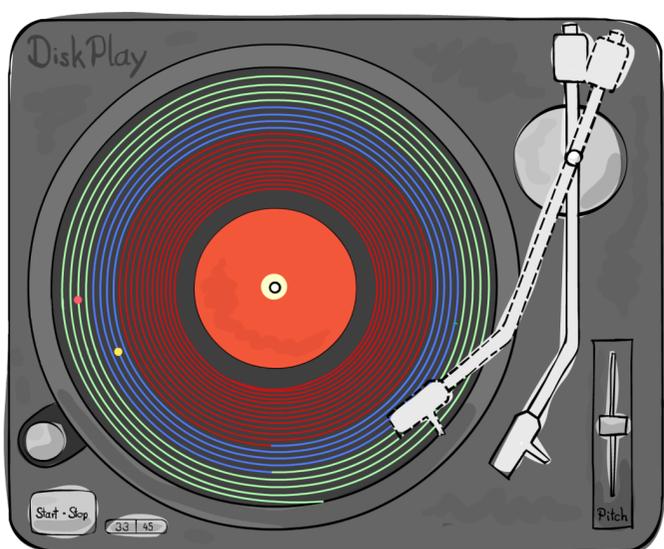
1. Introduction

1.2 System Overview
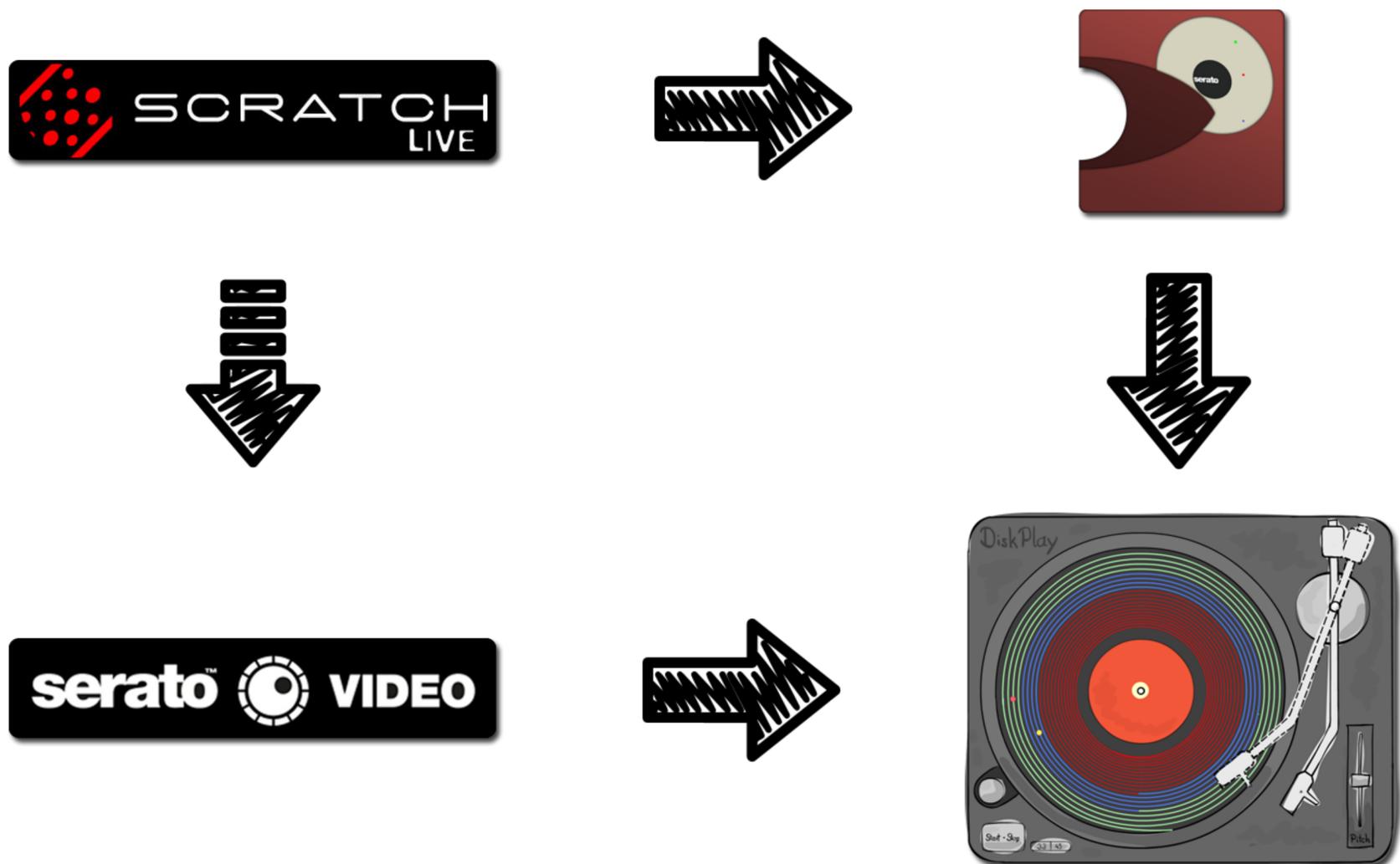
Scratch Live and Serato Video provide track information and send it via the infoBroadcast Quartz Composition to DiskPlay.

The Cuepoint-Feed Application keeps track of the cuepoints of the first deck in Scratch Live and forwards them to DiskPlay.

1. Introduction

1.3 Requirements

Software:

- Mac OSX 10.8 Mountain Lion

- Serato Scratch Live

- Serato Video Plugin for Scratch Live

- DiskPlay

Hardware:

- Your Mac

- Projector

- Tripod (or any other mounting)

- Scratch Live Hardware

- Turntable

- 15 min Timecode Vinyl

2. Setup

2.1 Software

Install Serato Scratch Live and Serato Video. DiskPlay is also working with the demo-version, in case you do not own the full version.


Start the DiskPlay app.
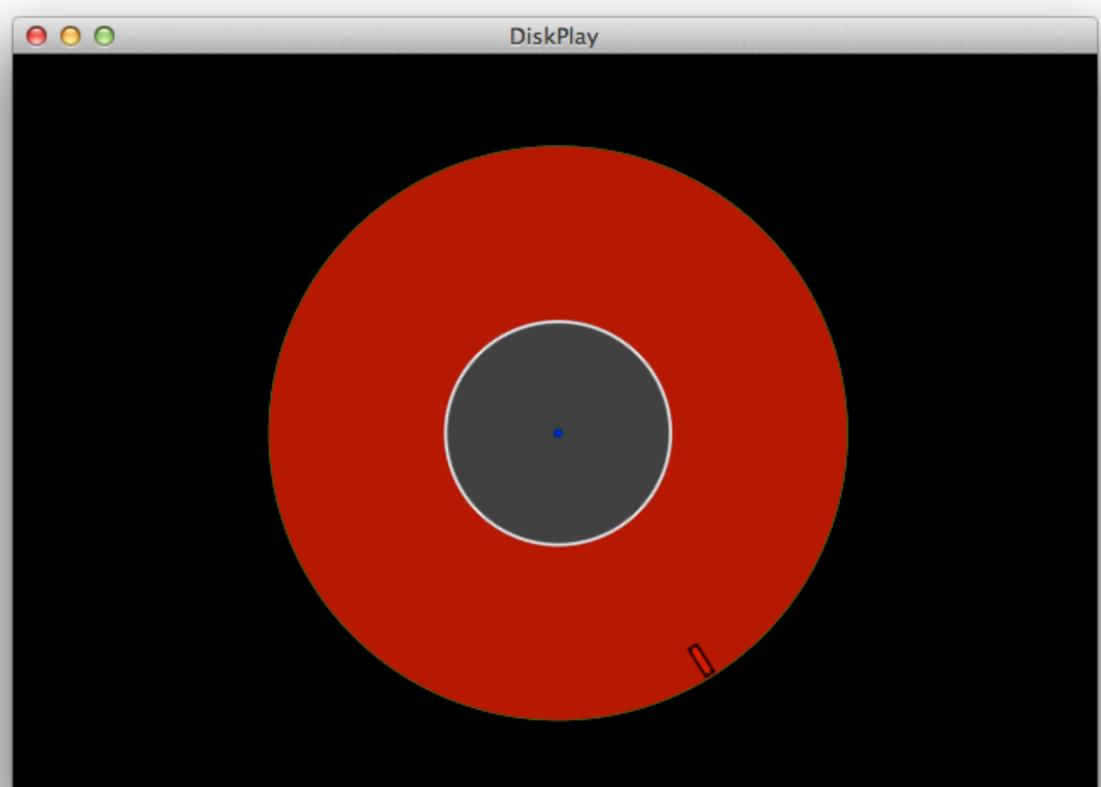
2. Setup

Start Scratch Live and activate Serato Video.
Pull a track to the deck.
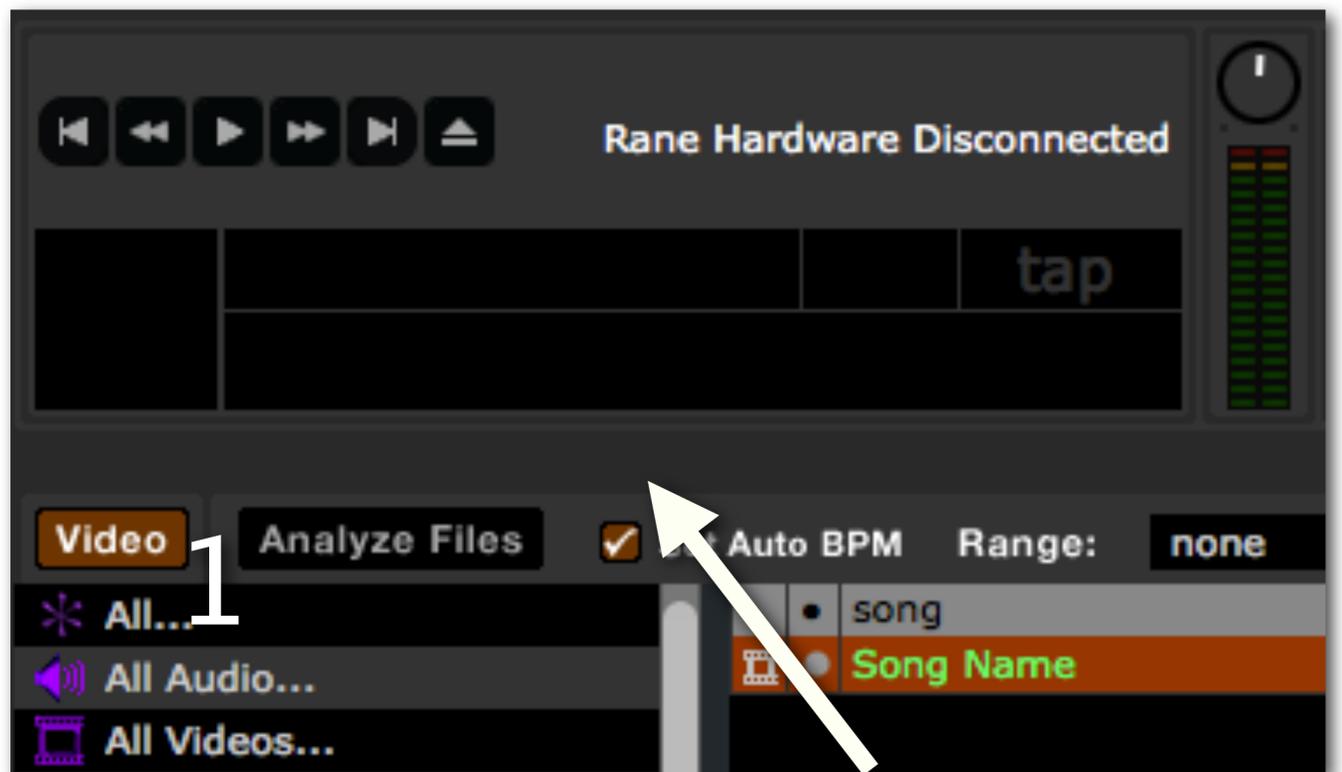
Activate the video preview area by clicking the "Video" button (marked **1**). This will reveal the video deck.

Add the InfoBroadcast to your media library. You will find it in the "All Videos" category.

Locate the InfoBroadcast and pull it to your video deck. Make sure that the infoBroadcast is only active in one deck (when using multiple decks). Otherwise the DiskPlay application will switch back and forth between both tracks.


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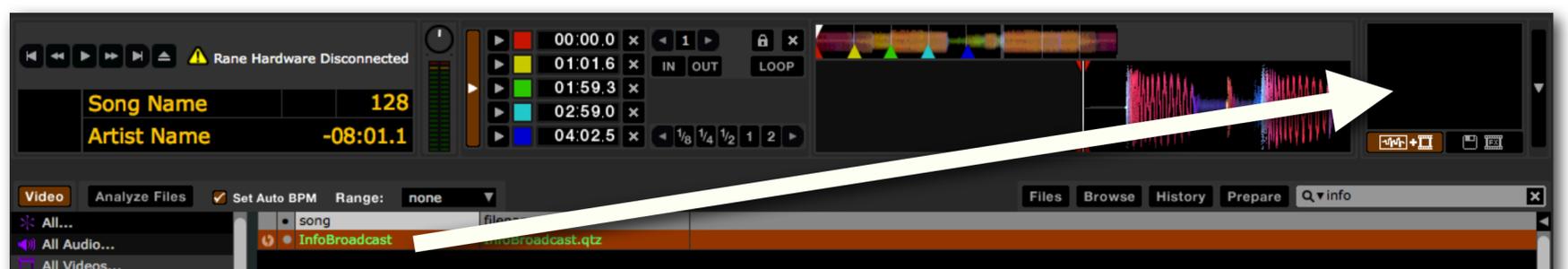
2. Setup

DiskPlay should now look like this:
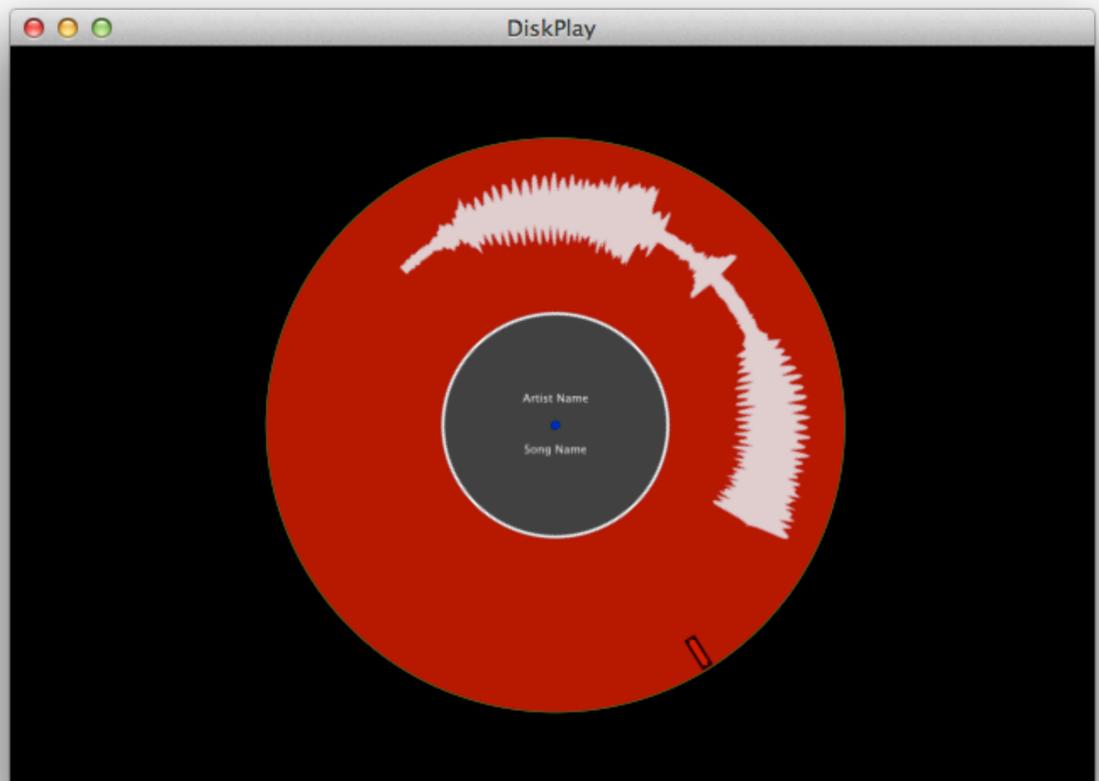
NOTE:
Neither track-start, nor track-end will be displayed. But there is an easy fix for it. You need to load 2 more tracks with the infoBroadcast in your video deck and it will work just fine.

DiskPlay should now look like this:
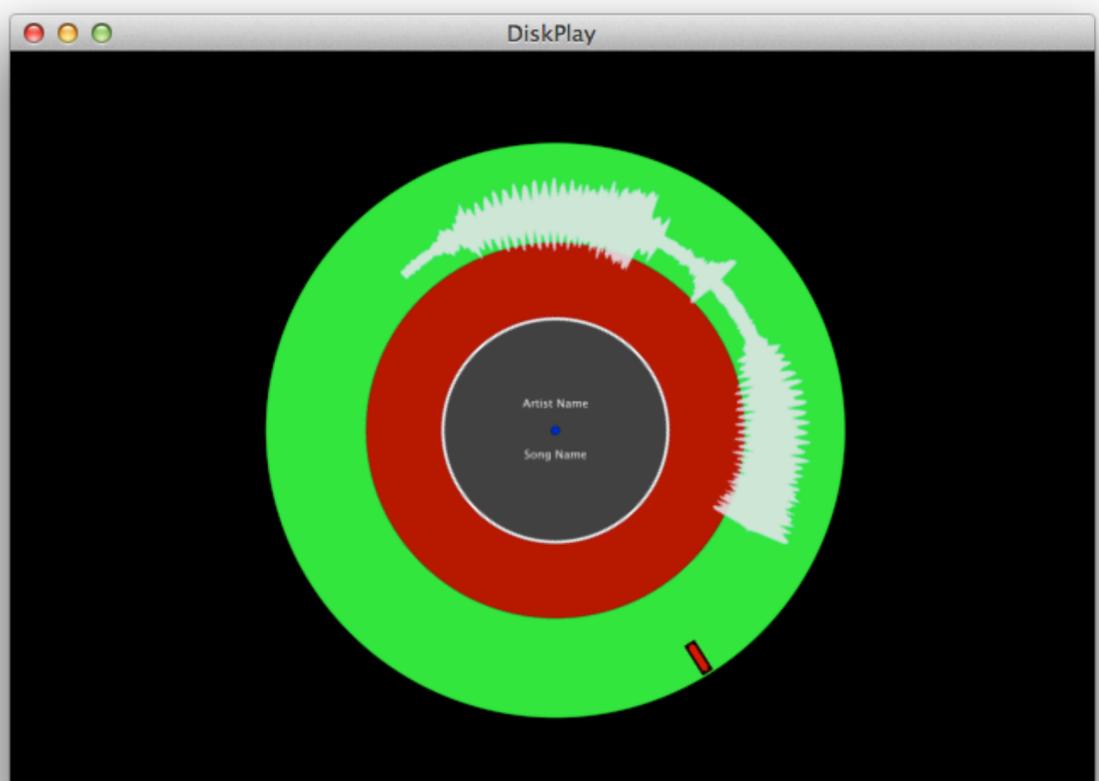
2. Setup

To add cuepoint-functionality, we need the Cue-point-Feed application. It will track the cuepoints visually and send the information to DiskPlay.

Pixel_RGB_To_Number_v002.plugin

v002 Media Tools–ID Modified.plugin

Before starting up the Cue-Point-Feed application, copy the 2 plugins pictured above to: "/System/Library/Graphics/Quartz Composer Plug-Ins/".

You may now start up the Cuepoint-Feed application. Do NOT minimize it. Leave it running in the background. Put Scratch Live into **fullscreen** mode and your cuepoints will appear in the DiskPlay app. Only cuepoints of the first deck are being recognized.

2. Setup

The Cue-Point-Feed application should show a small preview of your screen. If you can not see the preview, you may have copied the plugins to the wrong location or you are not running OS X 10.8 Mountain Lion.

If the cuepoints are displayed at the wrong positions, check if Scratch Live is in fullscreen mode. If you still cant get it to work properly, you may have a different color profile selected for your screen.

DiskPlay should now display the Cuepoints and the black circles. The software setup is complete.
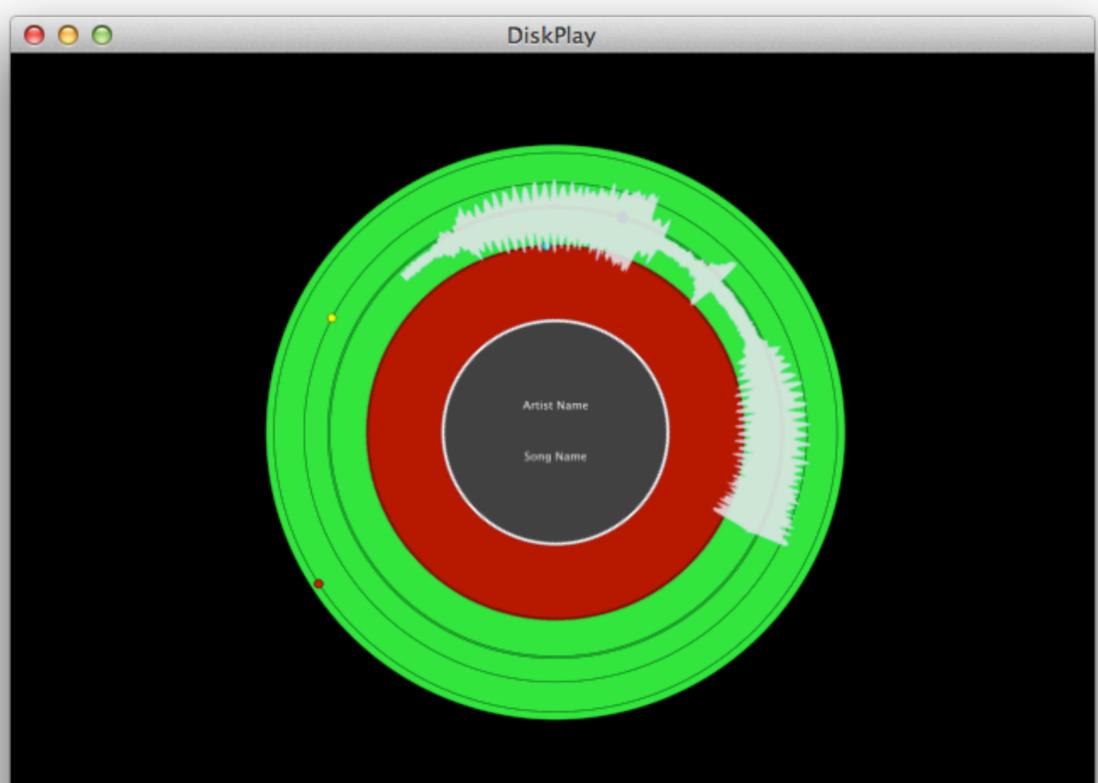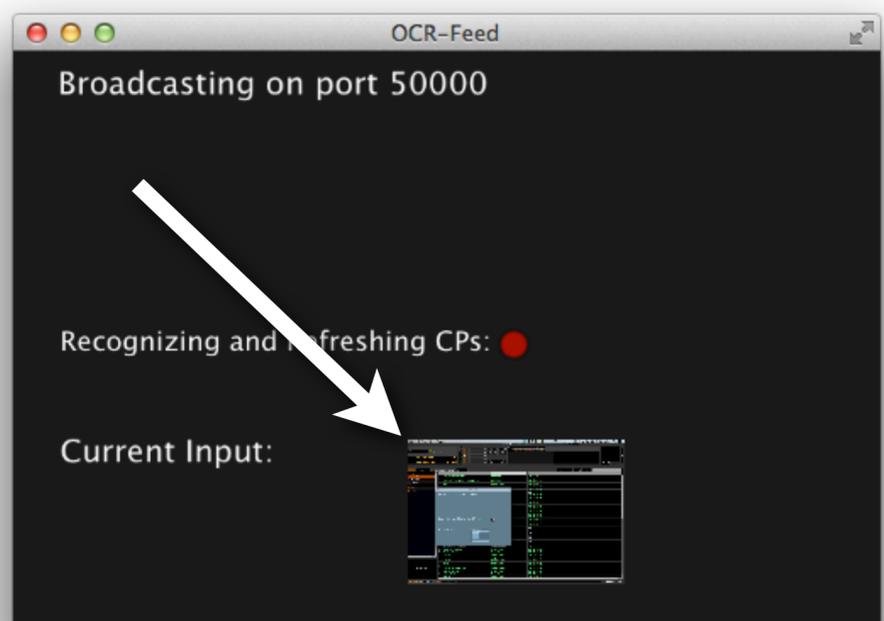
2. Setup

2.2 Hardware

The Diskplay setup is pretty simple. Just connect any regular projector to your mac and mount it above your turntable.
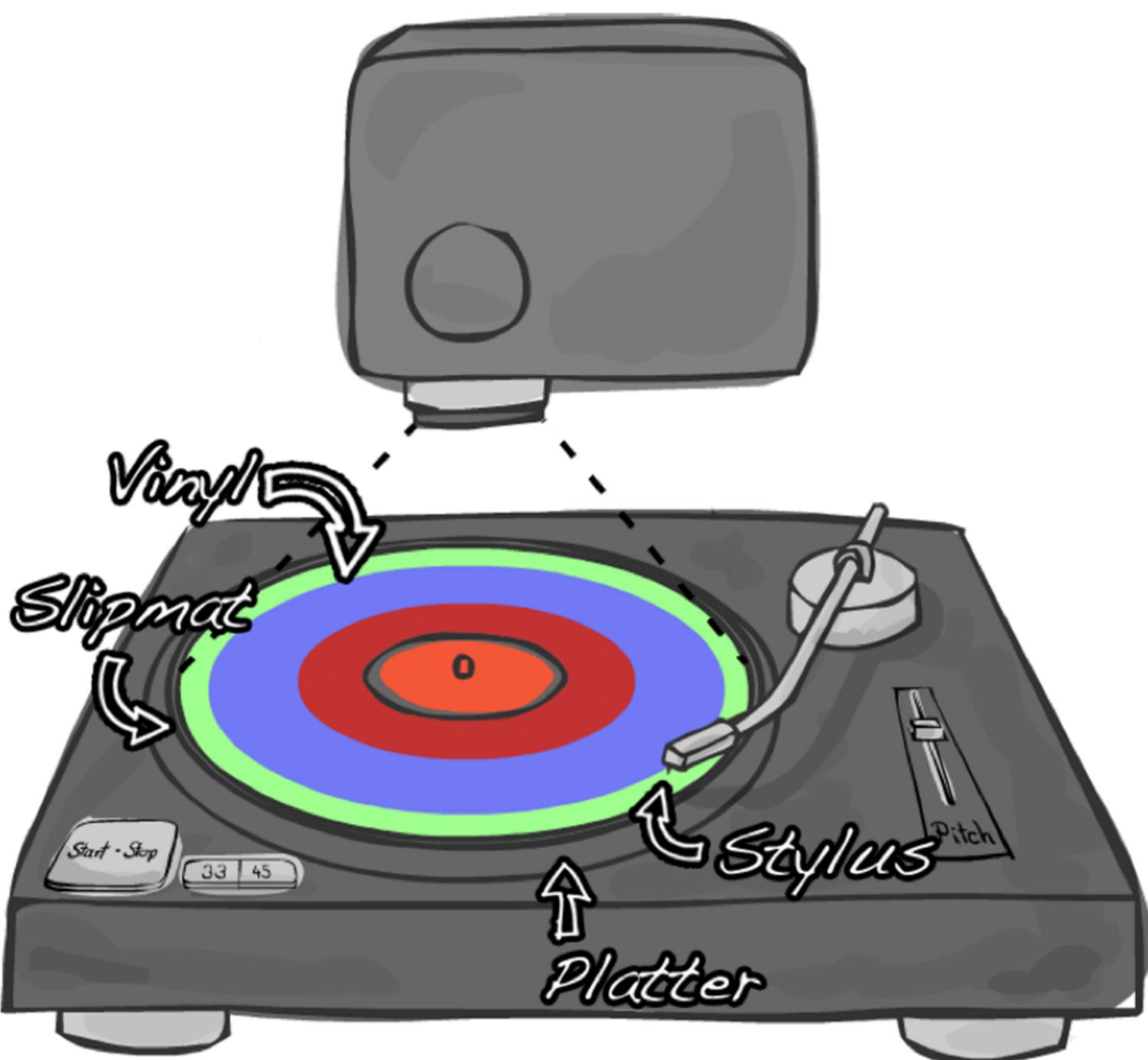
2. Setup

After moving the DiskPlay application to the projector, the only thing you need to do, is to calibrate the output.

To start the calibration, locate the "Screen Calibration" menu and click "Start Screen Calibration".
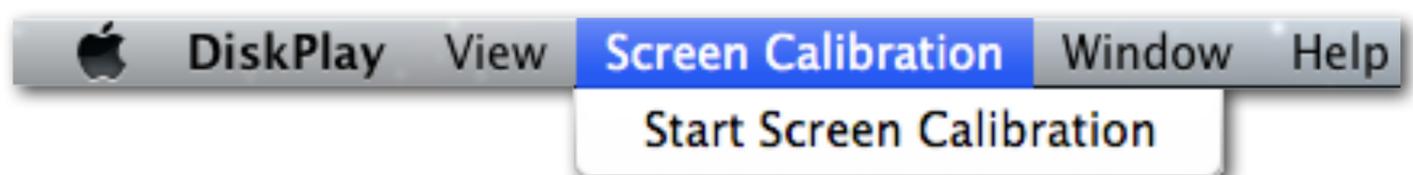
The calibration is done in 3 easy steps:
- Locate the center of the record and click on it

- Locate the start of the timecode and click on it

- Locate the end of the timecode and click on it

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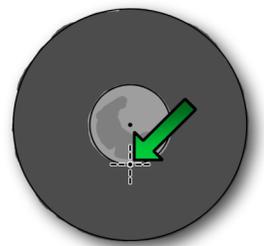
2. Setup

2.3 Optional Network Setup

DiskPlay can send data over your local network.
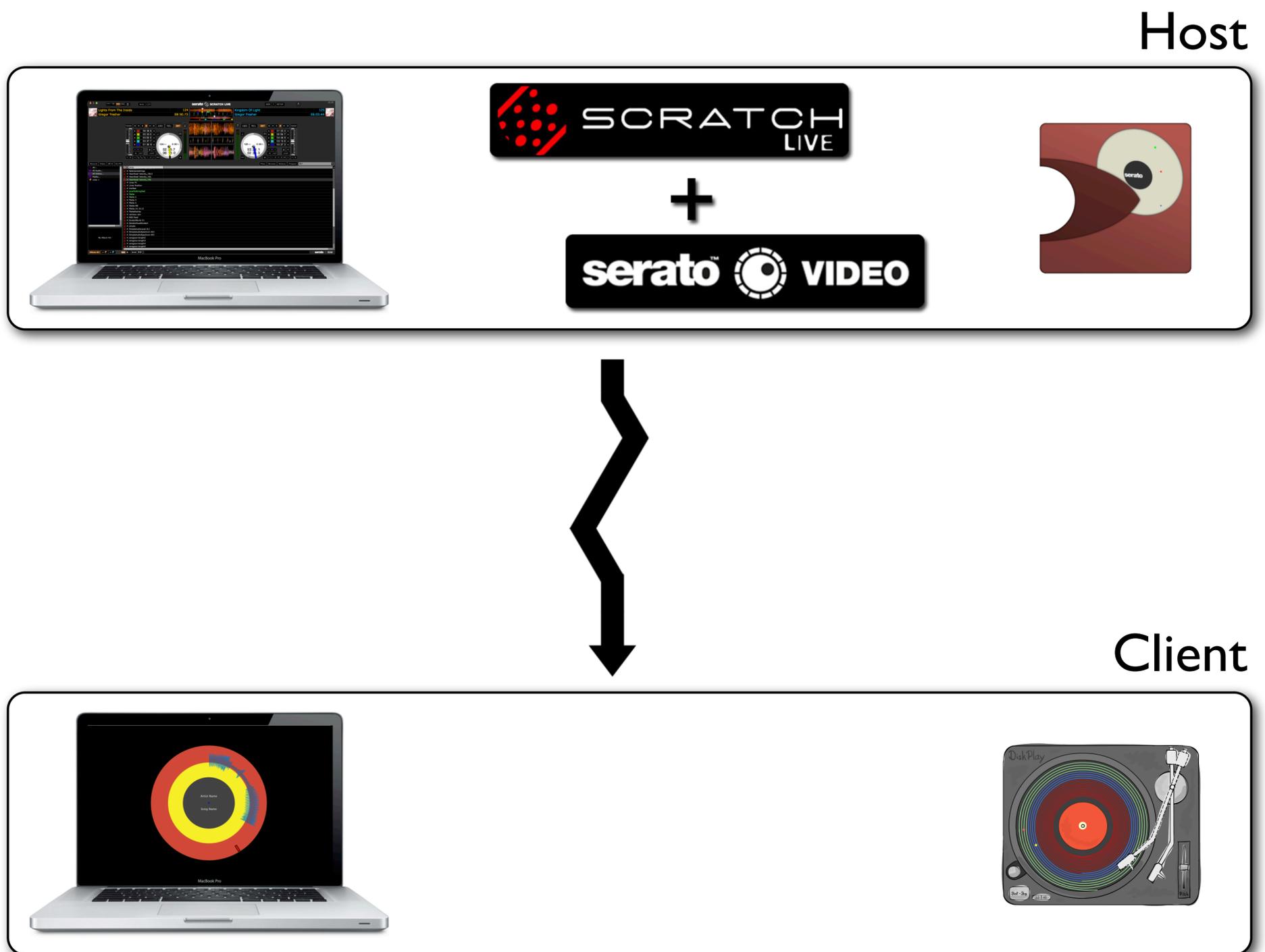
Host

Client

Start Scratch Live and the Cuepoint-Feed application on a host mac, while starting DiskPlay on a client mac. All data will be sent over the network. There is no need for any network configuration. The client will pick up all infos and display them accordingly.

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2. Setup

The waveform, displayed in DiskPlay, is calculated locally in the application itself.
If you want to use the waveform on a remote (client) mac, you have to make sure to have a copy of the current song on the remote machine.

Consider the following example:

There is a song located at
''/Users/UserName/Desktop/Artist/''
on your host machine.

If you want to see a waveform output on your client machine, you will need to have a copy available on your client machine at
''/Users/AnotherName/Desktop/Artist/''.

Note that the username itself does not matter.
The overall folder-structure hast to be similar.
Check the next page for some examples on this topic.

2. Setup

Example folder structures:

Host:
/Users/Pete/Desktop/Artist/test.mp3
Client:
/Users/Pete/Desktop/Artist/test.mp3

Host:
/Users/Miranda/Music/test.mp3
Client:
/Users/Pete/Music/test.mp3

Host:
/Users/Shared/test.mp3
Client:
/Users/Miranda/test.mp3

Host:
/Users/Shared/Music/Artist/test.mp3
Client:
/Users/Pete/Music/test.mp3
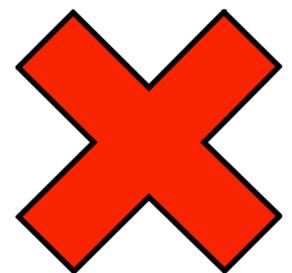
Host:
/Users/Miranda/Music/test.mp3
Client:
/Users/Pete/Music/test123123.mp3
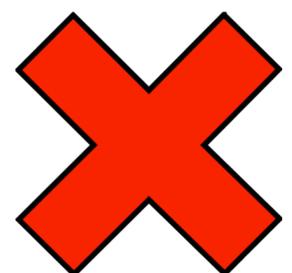
3. Help and FAQ

The DiskPlay application is laggy and the overall performance is not that good. Why is that?

> This is happening to all openGL accelerated applications when Scratch Live is running. It seems to clogg the drawloop of the system. The only workaround i know of, is to add a second mac and use the setup described in the "optional network setup".

The DiskPlay application is crashing when i load a certain mp3 into the deck.

> There may be a problem with your mp3. Maybe the file is corrupt or something else is wrong. But maybe your file is perfectly fine and there is a problem with DiskPlay.

DiskPlay is blinking / DiskPlay output is not working / song start and ending are not displayed / artist or song are not displayed

> First of all check if you did load the infoBroadcast quartz composition into the video deck. If that is the case, try force-

3. Help and FAQ

quitting the Serato Video plugin by right-clicking the Serato Video icon in your dock at bottom of your screen and choosing "quit". It will reopen immediately.

The cuepoints are not displayed correctly or not displayed where they are supposed to be.

First of all check if the Cuepoint-Feed application is not minimized. If it is, bring it back up. It does not need to be in front. Note that only the cuepoints of deck one are detected.

If this did not help, check if Scratch Live is in fullscreen-mode. The cuepoints can not be recognized correctly, if it is not in fullscreen-mode.

Do not put any windows or objects in front of the cuepoint display of Scrach Live, because cuepoints are recognized visually.

Are you using OSX 10.8? The Cuepoint-Feed application needs Mountain-Lion to work correctly.

If everything fails, restart the Cuepoint-Feed application and/or DiskPlay.

3. Help and FAQ

DiskPlay is writing log data to my harddrive. Is it spying on me?

> DiskPlay is logging behavior around cuepoints, how many cuepoints are used and which visual helpers are enabled. You can take a look at the files at "**/Users/ YourUserName/DiskPlay/**". All data is anonymous and no personal information is captured in these logs.

Why are you logging this?

> Because this is a research project and i hope that you will send me some of your logs so i can evaluate them. They can show me if DiskPlay is actually working.

Will these log files clutter my hard drive and use up all of my disk space after a while?

> There is a maximum of 7 log files. Every file can get as big as 3 mb, which makes a total of 21 mb (which is not that much). In conclusion: They will not.

3. Help and FAQ

My firewall application is telling me that the Cuepoint-Feed application tries to send stuff over the network, so you actually are trying to spy on me!

>DiskPlay is able to send all data over the network. This is how Serato Video and the Cuepoint-Feed application communicate with the DiskPlay application. All traffic is songdata and cuepoints.

Where can I send the log files to help you out?

>Please send the log files to DiskPlay@cs.rwth-aachen.de
>You should zip (or pack) them to reduce their size. Please be assured that no personal information is contained in these log files and that your individual privacy will be maintained in all published and written data resulting from the study. Also please note that the project is non-commercial.

3. Help and FAQ

Is there a way to change the colors of the application?

> Yes, right click the DiskPlay application. Click on "Show Package Contents". Now navigate to "Contents/Resources/" and find the "colorSchemes.plist". You can edit the colors by editing this plist. Colors are are defined as follows: red-green-blue-alpha. Choose values between one and 0 and save the document. You will need to restart DiskPlay for the changes to take effect.

I need further help. / I want to contact you. / How can I get in touch?

> If there is anything else I can help you with please drop me an Email: DiskPlay@cs.rwth-aachen.de

3. Help and FAQ

So what exactly is DiskPlay and why are you giving it away for free:

> DiskPlay is a non-commercial research project. We give it away for free reach more users and get more results.