

Media Device Support in Amarok 2 with Collections

Alejandro Wainzinger

Summary:

Good media device support is paramount to the success of Amarok 2, since these devices are everywhere and sometimes used as the sole location for a music collection. Amarok 2 has very little in the way of media device support, and the developers have confirmed that they desperately need help with this. Currently the three most popular devices are the iPod, MTP devices, and generic devices, and it is these for which I plan to add support.

Project:

The solid backend has already been built, but currently Amarok is not using it. My job will involve porting the three device types to the new solid backend, and building the frontend for basic operations such as connecting, transferring and deleting songs, and playing directly off of the media device. This also means bringing the code up to speed with Qt 4 wherever possible.

I will be focusing on adding excellent iPod support, but will get basic functionality out of the three mentioned device types. iPod loading in particular was unnecessarily slow in Amarok 1.4, so I will work on optimizing the code for the reading of the database. The issues that users currently experience with the iTunes lockfile and sysinfo-extended on newer iPods will be addressed so that the user does not have to deal with them. I will also be adding features that iTunes has for the iPods which add to their value. This includes synchronisation of the iPod with Amarok's existing collection, and offloading playcount of songs for sending updates to last.fm. Album cover synchronisation will also be implemented.

I will also implement a device collection to make the frontend work with the already-existing backend for displaying collections, and make it work well together with other collections e.g. the podcast collection.

Projected Timeline:

Study Period:

4/14 - 5/25: I will overview the solid code briefly, study the mediadevice code, and look in-depth at libmtp and libgpod, for MTP devices and iPods respectively. I will also study the collections code to understand how to implement one.

Work Period:

5/26 - 6/01: port iPod, MTP, generic devices to the new solid backend

6/02 - 6/22: work on iPod support, advanced functionality

6/23 - 6/29: work on MTP and generic devices functionality

6/30 - 8/11: work on the media device collection

8/12 - 8/18 - write tests/bughunting/documentation/code vacuuming

Background

I'm a Computer Science undergraduate student at the University of California Santa Cruz in the western United States, though I am Argentine-born. Amarok would be my first big project, but I am familiar with C++. I'm learning Qt, and am willing to learn kdelibs.

I'm an avid user of KDE and Amarok and have been wanting to contribute for a while. I feel the most passionate about the iPod since it's a big part of my daily life, and I know that many others would benefit from good media device support.

Until June, I will be in school and so can dedicate 10-20 hours per week, but after that I want to push it to 20-30. As for mentoring, working with people half-a-world away is nothing new to me, and I have two KDE clock applets to keep track of this as is. I'm comfortable with e-mail and chat, as they are often more effective at helping to stay on task, even if meetings in person allow for rapid and accurate exchange of ideas. That said, if time and money permit, I would prefer to meet with my mentor at some point.