QML'ify Amarok Context View

About the Project:

The goal of the project is to convert the Context View of Amarok to QML. Currently, the context view relies heavily on Plasma, which is an added dependency to Amarok. By forming data models that are written in Pure Qt, we can remove this dependency. The core of this project is Data Models written in Qt, which will then be used by QML widgets. Another aim is to implement a mechanism for distribution of the context view widgets.

Implementation Details:

I will be focusing on forming Data Models for the following widgets:
- Current Track
- Lyrics
- Wikipedia Information
- Videoclip
- Info
- others, if time permits

The required models will be implemented completely in Qt. These models will be based on QAbstractItemModel, and will be exposed to QML widgets using the QDeclarative framework. Fetching of information from the internet for the Video, Wikipedia and Lyrics applets will be done using SPARQL.

For the distribution of the applets, I plan on using the Open Collaboration Services (OCS) content module, using libattica.

Current Status:

I am currently studying the code of Amarok, mainly focusing on the Context module, EngineController, and the current dataengines, and familiarising with the design patterns used in Amarok. I am also going through the implementation of MVC in Qt. For Proof of Concepts, I have written a class that retrieves the current track details, and have been able to form a model, based on QStringList, and have built it with Amarok. I also wrote a sample QML module, to display these details. I am working on implementing the model with QAbstractItemModel. For distribution, I am going through the examples of libattica, for the distribution of applets. I am also familiarising with Sparql queries, and using them using QSparql.

Timeline:

Pre Proposal Phase:
Go through present Amarok code, and try to implement the current track module using QAbstractItemModel. Also, get a good know on how to use libattica and Sparql.

Community Bonding Period:
I would be having exams just after the community bonding period. So, I would try to write at least one model in this period.

May 30 – July 1:
I this time frame, I would concentrate on implementing the Data Models

July 1 – July 20:
In this time period, I would form the required QML views, and integrate the views and the data models into the existing Amarok Context.

July 21 onwards:
In this time period, I would focus on implementing the distribution mechanism, and fixing bugs wherever necessary.

About Me:

I am a Third Year student of Computer Science & Engineering at Manipal Institute of Technology. I have been using Linux for the past three years. openSUSE has been the choice of distribution for me for the past two years. KDE is my preferred Desktop Environment. From the coding perspective, I am familiar with C/C++, Java, Python. I have also worked on the Qt Framework for building GUI applications. I worked last summer on building Plasma Widgets for the Open Build Service (OBS). I implemented the widgets in QML, and also made the dataengine for the same. I am a member, and ambassador of the openSUSE community.

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