MYS project vision (until June 2013)

Version: 2013-03-07

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# Global vision

MYS V0.1 is an Android (v. 4.1) application. The user can (after launching the app) records his displacement in the city of Geneva in order to generate a movie composed by several variations durations short movies clips (called Asset). The asset selection is done based on different parameters in a local engine. Parameters are by example: current localization; current speed and kind of displacement (walking, running or vehicle). All these parameters are provided to the main engine every interval time (to be defined). The main engine gathers those data and generates a score, and then selects an asset to be added to the main generated movie. The selection is random, but based on the user localization and influenced by the generated score.

The MYS V0.1 app is composed by 3 main modules: The first one is the movie asset selector. Based on data from the others modules, it generates a score and select the best asset that match the user localization and the compiled score. This module is a copy of the existing one from the iOS version called Walking the Edit. The asset database is local in a JSON format and provided with the application including all assets sounds. No connectivity is needed for this asset selection. The score engine is the same written in the iOS version and required as input: latitude, longitude and the current speed. For each asset selected, the module increment the asset used count in order to decrease the score of this asset in case of a future selection in another generated movie.

The second module is a global positioning module based on GPS sensors and helped by other available providers when needed. All outside displacements is recorded while the MYS application is running. The position is also mapped to a street database when the user is walking near one to avoid fake positions. The frequency update is one second. All data while the movie is recording are saved in a database including latitude, longitude and current speed. The current speed is computed for each element with the previous one.

The last module is planned to give more data than ones required by the asset. These data will be used for the new release of the asset engine that will be not yet implemented in this version. Data provided are: The user localization; the current speed; the moving orientation and the walking intensity. Walking intensity data will be provided in the only case of when the user is walking and if the device is in a pocket. The decision of using the physical activity intensity is manual and can be selected in the application settings. A first activity type recognition algorithm is also implemented in order to detect activities like walking, running or travelling in a vehicle.

On top of these 3 modules, MYS V0.1 manages the data workflow among modules and playing sounds of the last asset selected until the next one. It is also responsible to start the new asset selection 4 seconds before the end of the current asset. Moreover, it is able to run into background, even when the screen is off. It also manages connectivity with the server through the Memoways REST API and with a login / register forms in order to send information about the movie generated to the server. Information sent to the server are all assets ID selected during the record session and the travelling “trace” of the user (information provided and the format to be defined later). Finally, it manages as history all previous recordings and the application settings (to be defined depending needs).