

AGPA: Automatic Geographic Profile Adapter

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Abstract

The Automatic Geographic Profile Adapter (AGPA) automatically change your mobile phone's profile according to where you are. It enables you to set up different profiles for when you are at work, home, in your favourite bar, etc. The profile changes depending on your location. For example, it allows you to have different ring tones at work or home.

Motivation

Our program is developed to adapt the behavior of the mobile phone to where it is. By definition, mobile phones move with their owner. Therefore, they are used in different context: professional, familial, social, etc. Most of the time, the mobile phones' user interface or behavior do not change in those different contexts. Our program try to solve this problem.

How to use the program?

The program checks the mobile phone's location and change the user preferences. The program's user interface lets the user save favorite locations (as the user would save phone numbers and other contact information, for example). It also enables the user to define the action associated with the location. For example, the user can save the location "Home" and ask the program to change the mobile phone's ringtone everytime the user is at that location. See Figures 1 and 2 to see the graphical user interface.

How does it work?

There are two programs running for the system to work. One is a user interface that allows the user to define the locations and preferences. The second is a daemon that checks the phone's location based on cellids¹. It

¹Cellphone antennas' identification number

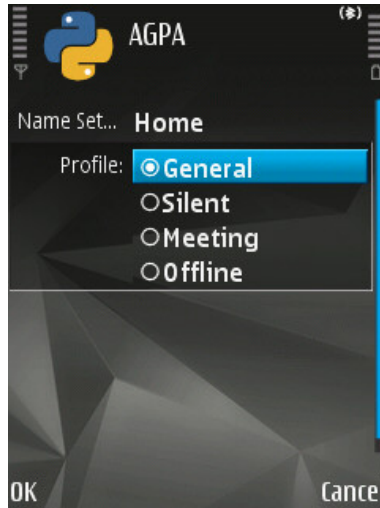


Figure 1: Configure the profile for the location “Home”

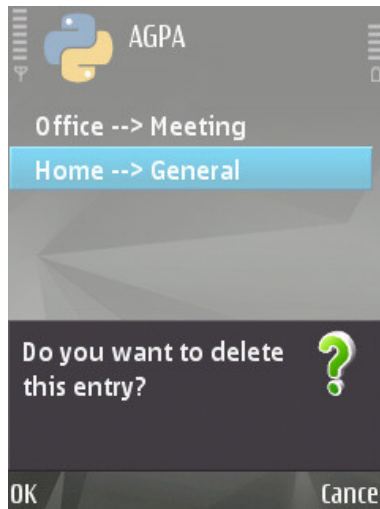


Figure 2: Manage the different actions for the locations

runs in background. The two programs work together by using a common simple database.

Conclusion

Contribution

Our program is a proof of concept. It needs much improvement to be commercialized, but all the basic functionalities work. The user can save locations and associate cellids with those locations. Every time, the phone is at that location the phone's profile can be changed.

Future development

Most of the remaining work is to add possibility for the user to change other preferences. For example, change the background or the theme of the phone, synchronize automatically with a computer, lock the phone, etc. The program could also use other ways to locate the phone: GPS position, bluetooth, wifi, etc...