

Wear Application Monitor Pro (WAMP): A Study of User Activity and System Performance on Wearable Architectures

News

- 10.01.2015 WAMP v1.0 released on Android Market and Goko Wear Market!

https://play.google.com/store/apps/details?id=com.wearapplicationmonitorpro&hl=en

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About WAMP

WAMP is an important part of an exciting, ongoing research study at Northwestern University. Our goal is to understand usage patterns and system performance on *wearable devices* and then use this information to guide the design, evaluation, and optimization of future wearable device platforms. To this end, we need to continuously collect *REAL* data from *REAL* users on *REAL* smart watch devices. This is exactly where *YOU* come in the picture!

With your participation and consent, WAMP will monitor your –your smart watch's- activity and system performance, and then periodically upload data to our server.

*Besides that, WAMP has so many features for its users that you may find interesting. You can see your watch's instant power consumption as well as some interval time period consumption. Also you can see which applications consume more battery and you can even kill them!

Participating in the Study

To participate in the study, you must have phone that runs the Android platform and a smart watch that runs the Android Wear platform. Since we are focusing on wearable architectures and trying to understand it, an Android Wear using smart watch is necessary!

Installing WAMP

WAMP can be installed through the Android Market under the tools section as well as from the Goko Wear Market, you can easily see WAMP and be guided to Android Market to install. The fastest way to find it is to just search for "Wear Application Monitor Pro" using the search utility.

Using WAMP

WAMP starts you open the application, or immediately after your phone boots. It then runs in a background service and collects data as you use your smart watch.

In addition, please note the following:

- WAMP gives notification on instant power consumption of your smart watch. So when you see a "Low Power Consumption" or "High Power Consumption" that means WAMP is running on your device.
- By default, WAMP operates without your intervention. We automatically log and periodically try to upload the logs to our server.

This project would not be possible without your involvement and participation. Thank you for joining our study!

F.A.Q.

Who are we?

We are the Empathic Systems Project, a collaboration between Northwestern University and the University of Michigan. We explore methods of incorporating the user to improve computer architectures and systems. Some of our recent work has shown that adjusting CPU frequency based upon user perception can significantly decrease power consumption of modern computer systems. We believe that studying user activity will be critical in improving wearable architectures. Thus, we have developed WAMP.

What data is collected and also displayed within the app to users?

We collect any data that we believe may assist us understanding user activity and system performance on mobile architectures. A complete list of what we collect:

- CPU utilization
- Smart watch state (airplane mode, signal strength)
- Display brightness and state (on/off)

- Phone/Wifi signal strength
- Wifi connectivity (bytes sent/received)
- Bluetooth connectivity (bytes sent/received)
- · Battery levels
- SD Card traffic
- Statistical sample of commonly used apps

What about my privacy?

We do NOT inspect any of your personal information, data, or communication on your device. As an example, we DO log your smart watch service and network traffic, but DO NOT log any connected nodes/phones' numbers or the data or send/receive via the network.

To protect your privacy, all data is anonymized before each upload. Your data is identified on our server by an Android ID that is unique to each connected Android phone. We cannot use this ID to trace any log data back to a particular person.

By installing the WAMP and running the logger, you consent to enabling awesome academic research and providing us with data on your user activity. If you do not want to participate, it is easy to uninstall the WAMP.

Have another question?

Please feel free to contact us with any further questions at emirhan(dot)poyraz13(at)gmail(dot)com