

# ORGANIZATION OF THE MULTITHREADING IN ANDROID MOBILE PLATFORM

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Currently, mobile platforms have very powerful computing capabilities for parallelizing tasks that perform independently from each other tasks simultaneously. Increasingly, there are mobile devices with 2, 4 and 8-cores processors. However, parallel work has its limitations, because if organize this process incorrectly, the user will not notice the difference in performance between usual single core and multicore processors. Also for multithreaded work increases the likelihood of errors during simultaneous shared data processing what could lead to inaccuracies.

To use a mobile system Android, it is an essential condition to implement multithreading. Multithreading is the ability of a program or an operating system process to manage its use by more than one user at a time and to even manage multiple requests by the same user without having to have multiple copies of the programming running in the computer. When performing certain tasks such separation can achieve more efficient use of computing resources. Android - the operating system and platform for mobile phones and tablet computers, Google's kernel-based Linux. Mobile devices with Android system is characterized by a special approach to the multithreading and interaction with the user interface.

Android is a relatively new system and is characterized by lack of research in conventional terms and techniques concerning the right of multithreaded work in the system. To develop and debug multithread programs is more difficult than usual the sequential program. Often, the introduction of multithreading leads to reduced reliability programs. Organization common address space requires high-level engineer qualifications. Using threads may reduce productivity applications. This is typically the case in uniprocessor systems. In such system attempt to perform complex calculations in parallel multiple threads only leads to unnecessary costs for switching between threads, the number of executed instructions remains the same. Android systems provide multithreading more often to avoid blocking the main thread, or so-called user interface thread.

Keywords – Handler, Looper, Multithreading, Asynchronous Tasks.