REPORT COINS SUPERDOWNLOADER APP

Mobile Development 2023

Riccardo Caprile S4370774

Real device HW

- **Device :** Samsung Galaxy Z Fold 4
- **CPU :** Snapdragon 8
- **Ram:** 12 GB
- **Cores :** Octa

Execution Time Analysis

I've analysed the execution time on a real device.

I've increased the number of rotation to 400 per coin because there weren't such a big difference between the serial and the parallel version.

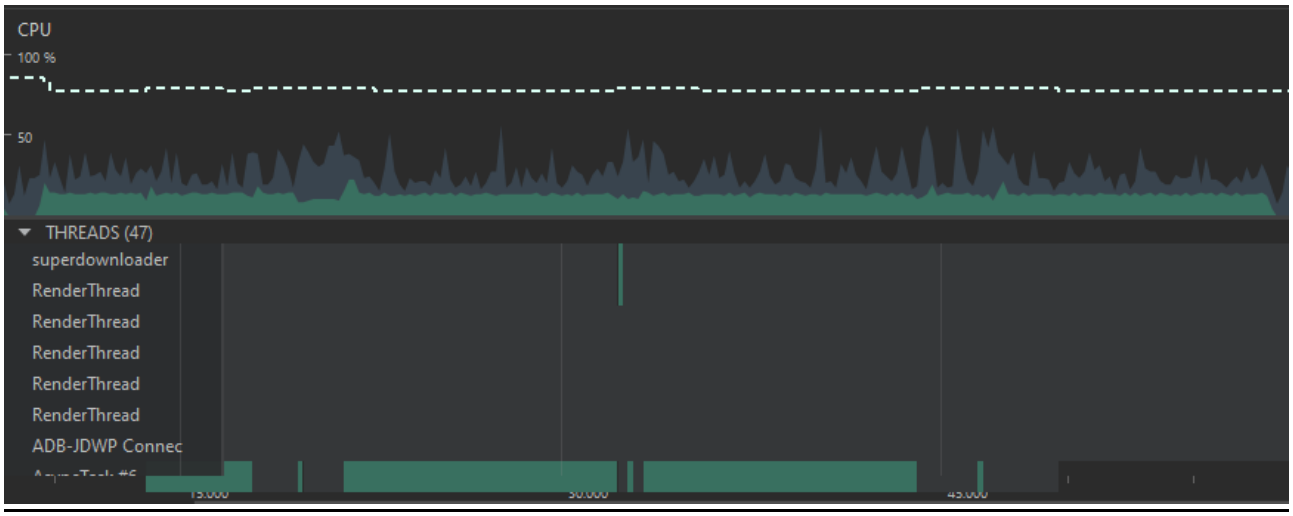
The execution time of the serial version is 50 seconds , and the maximum CPU load is 19/20%. Using executeOnExecutor function the execution has increased down to 25 seconds, a big improvement, and the CPU load was 88%.

The results I got are easy to explain. With the serial code , the AsyncTask are executed one by one and so the second image must the download of the first one, this process could bring to useless waiting. The CPU has just to work with 1 download at a time and so the CPU load is not so high.

With the parallel version of the code , we reached the same objective in less time , exploiting all the resources that the CPU gives to us, using different thread to work on different downloads at the same time.

Screenshots of the CPU Profiler

Serial



Parallel