

## An Empirical Study of F2FS on Mobile Devices

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**VENUE** CS Seminar Room, Y6405  
6th Floor, Yellow Zone  
Yeung Kin Man Academic Building  
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### ABSTRACT

Flash Friendly File System (F2FS) is getting popular among mobile devices. However, lack of empirical and comprehensive analysis for characteristics of F2FS prohibits better application of F2FS. In this paper, we present a set of comprehensive experimental studies on mobile devices and show several counterintuitive observations on F2FS, including imprecise hot/cold data separation, unexpected trigger condition of background GC, impact of fragmentation on read performance and impact of readahead by fragments and available space. Based on these observations, we further provide several pilot solutions to improve the performance of these mobile devices. The objective is to inspire researchers and users to pay attention to F2FS characteristics, and further optimize its performance.

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Supervisor: Dr Chun Jason Xue

Research Interests: Mobile Storages; Embedded Systems; File Systems

**All are welcome!**



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