

PROJECT 4 REPORT - FATBOI

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Analysis Table

FUNCTION	PARAM1	PARAM2	PARAM3
1. fat DISKIMAGE -v	real 0.003s user 0s sys 0.003s (average value)		
2. fat DISKIMAGE -s SECTORNUM	real 0.001s user 0.001s sys 0 s (for 0 as param)	real 0.001s user 0s sys 0.001 s (for 50 as param)	real 0.003s user 0.002s sys 0.001 s (for 1000 as param)
3. fat DISKIMAGE -c CLUSTERNUM	real 0.001s user 0.001s sys 0 s (for 2 as param)	real 0.001s user 0.001s sys 0 s (for 50.000 as param)	real 0.001s user 0.001s sys 0 s (for 125.000 as param)
4. fat DISKIMAGE -t			
5. fat DISKIMAGE -a PATH			
6. fat DISKIMAGE -b PATH			
7. fat DISKIMAGE -l PATH			
8. fat DISKIMAGE -n PATH			
9. fat DISKIMAGE -d PATH			
10. fat DISKIMAGE -f COUNT	real 0.001s user 0.001s sys 0 s (for 15 as param)	real 0.002s user 0.002s sys 0 s (for 500 as param)	real 0.356s user 0.079s sys 0.180s (for -1 as param)
11. fat DISKIMAGE -r PATH OFFSET COUNT			
12. fat DISKIMAGE -m COUNT			
13. fat -h	real 0.001s user 0s sys 0.001s (average value)		

Table 1: The table constructed by experimenting with various parameter values.

Result Evaluation

The results highlight that overall increasing parameter values would result in an increase in terms of the time it takes to execute the given command. In this respect, the results show parallelism with our theoretical assumptions as the relation between parameter size and execution time is expected to be directly proportional. At this point, it has to be mentioned that for some commands, the result seem to show not much of a difference. However, we assume that the possible reason behind this is not that the execution made absolutely no difference but rather it was because the difference was negligably small that they are not reflected in the terminals output (The difference was most likely out of scope). When it comes to differences, as mentioned it can be concluded from Table 1 that most of the commands we created show linear relation where the time is precisely corelated with input parameter values and this is yet again due to processing the FAT32 file system, reading the necessary sectors/clusters and furhtermore increasing the time to placing them into corresponding sector/cluster arrays and retreieving them to make necessary outputting operation.