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CSCI 4061 Lab 3 Experiment

**Values:**

Number of R/W operations on provided input\_directory (no test.txt file): **4183**

Approximate R operations (half): **2091**

Number of files: **6**

Average accesses per file: **348**

Rotation rate: **15,000 RPM**

Average rotation time: **2 ms**

Average seek time: **4 ms**

Average sectors per track: **1000**

Sector size (block size): **512 bytes**

Transfer time:

**Best Case** (contiguous file system):

*Seek time + (# accesses)(rotation time + transfer time)*

$4ms + (348)(2ms + .004ms) = 701.4 ms$

**Average Case** (fragmented blocks):

*(# accesses)(seek time + rotation time + transfer time)*

$(348)(4 + 2 + .004) = 2089.4 ms$