527326-12-4E AID: 258164| 31/08/2020

**500 read requests ,to a randomly chosen sector disk head on outside track ;CSCAN**

**The formulae:**

|  |
| --- |
| **S**eek time = estimate track + interpolation with average seek time |

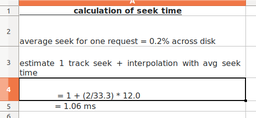
|  |
| --- |
| total time of block = block \* total time |

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**Calculation as follows:**

Step 1:

seek time:



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Step 2:

Rotation time:

We don’t know head position when seek ends ;

random reads

= 4.15 ms (half rotation)

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Step 3:

Transfer time:

Just as before ,at least 9.5 microsecond

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Step 4:

Total time :

= 5.22 ms per block

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Step 5:

For 1000 blocks:

= 1000 \* 5.22 ms

=2.16 s

Total block time = 2.16 s