Given:

8 HDD with …..Read/Write = 60 ms & Seek = 5 ms

Job: W9 R9 R10 R11 R13 R18 R19 R20 W21

RAID 0

|  |  |  |
| --- | --- | --- |
|  | SEEK | R/W |
| W9 | 5 | 60 |
| R9 | 5 | 60 |
| R10 | PARA | 0 |
| R11 | PARA | 0 |
| R13 | PARA | 0 |
| R18 | PARA | 0 |
| R19 | PARA | 0 |
| R20 | PARA | 0 |
| W21 | 5 | 60 |

Total runtime = seek + r/w

RAID 1

|  |  |  |
| --- | --- | --- |
|  | SEEK | R/W |
| W9 | 5 | 60 |
| R9 | 5 | 60 |
| R10 | 0 – PARA | 0 |
| R11 | 0 – PARA | 0 |
| R13 | 0 – PARA | 0 |
| R18 | 0 – PARA | 0 |
| R19 | 0 – PARA | 0 |
| R20 | 0 – PARA | 0 |
| W21 | 5 – some will/may need to seek to the correct location | 60 |

RAID 01 – assume default setup, as depicted in the slide, that is two RAID0 (of 4HDDs) both in a RAID1 configuration.

|  |  |  |
| --- | --- | --- |
|  | SEEK | R/W |
| W9 | 5 | 60 |
| R9 | 5 | 60 |
| R10 | 0 – PARA | 0 |
| R11 | 0 – PARA | 0 |
| R13 | 0 – PARA | 0 |
| R18 | 5 | 60 |
| R19 | 0 – PARA | 0 |
| R20 | 0 – PARA | 0 |
| W21 | 5 – some will/may need to seek to the correct location | 60 |

RAID 100 - assume default setup, as depicted in the slide that is 4 RAID1 (of 2HDDs) each pair in a RAID0 configuration, with these pairs in a further RAID0 configuration.

|  |  |  |
| --- | --- | --- |
|  | SEEK | R/W |
| W9 | 5 | 60 |
| R9 | 5 | 60 |
| R10 | 0 – PARA | 0 |
| R11 | 0 – PARA | 0 |
| R13 | 0 – PARA | 0 |
| R18 | 5 | 60 |
| R19 | 0 – PARA | 0 |
| R20 | 0 – PARA | 0 |
| W21 | 5 – some will/may need to seek to the correct location | 60 |