

3592 Tape Drives Experiences

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May 2004

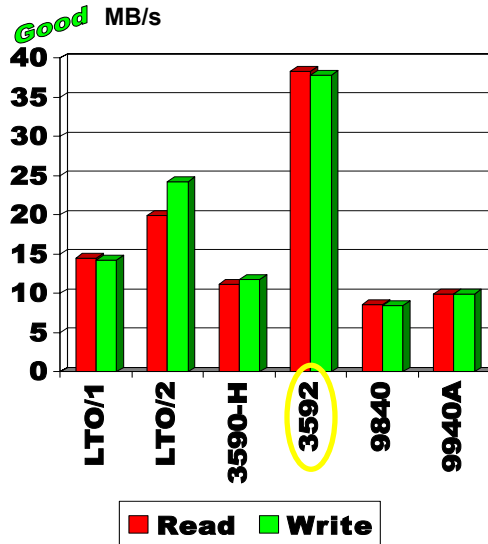
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IBM 3592 Tape Drives

- **Tape capacity: 300 GB uncompressed.**
- **Bandwidth: 40 MB/s uncompressed.**
- **Cartridge form factor similar to 3590/9940.**
- **Drive are FRU small form factor.**
- **Good loading characteristics (typically 28-40 seconds).**
- **Good positioning characteristics.**
- **Speed matching.**

Sequential operation

- Sequential operations on 5GB files.
- The test program uses double buffering.
- Compression is enabled.
- The data used is random, compression is close to nil.
- Note: Our benchmarks are not tailored to fit each drive best performances.

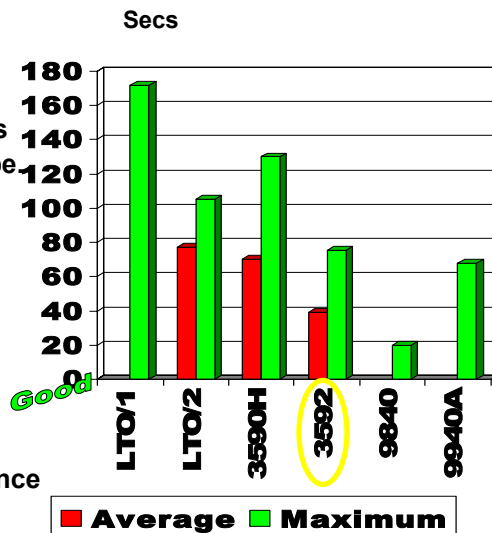


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Positioning to 1st byte

- With the tape mounted and rewind, we position to the beginning of as many 1GB files which can be stored on the tape.
- Note: New microcode for the LTO/1 drives might have improved their performance since these tests were run

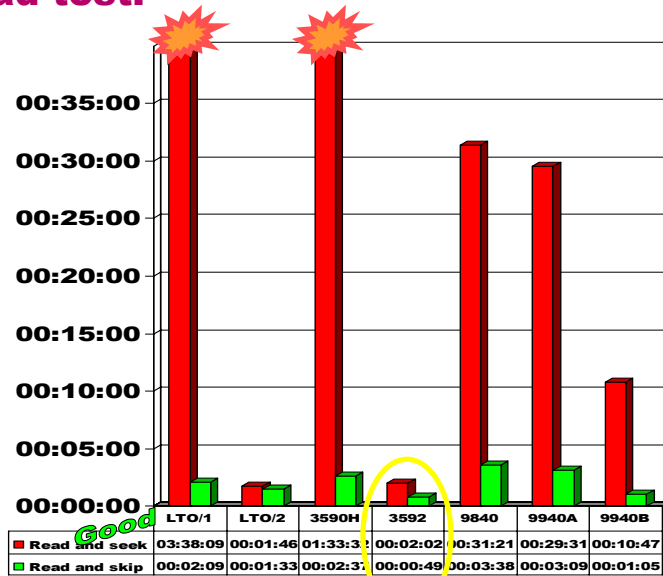


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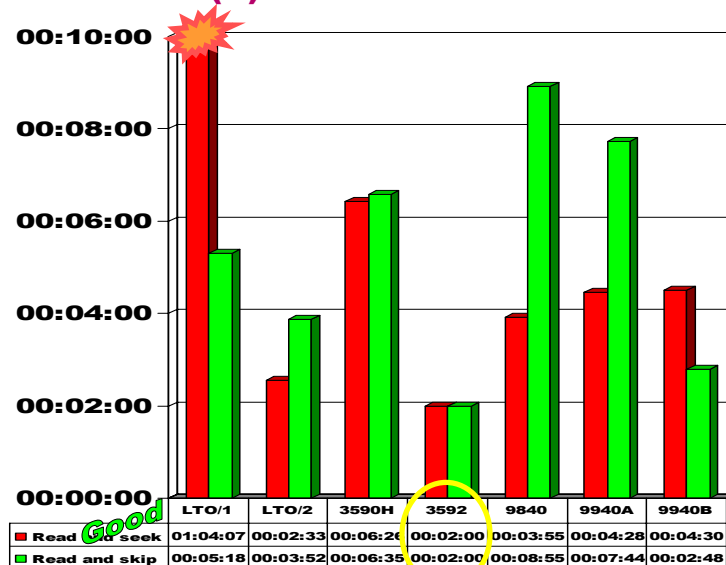
Locate and read test.

- Our applications retrieve single objects scattered through the files on tape.
- This test simulates the retrieval of 6000 128KB objects separated by small intervals (320K).



Locate and read test (2)

- Same test as before, except that 60 objects are retrieved from the files, separated by bigger intervals (60 or 90 MB).



In real life.

- **Beta tested these since spring 2003, in production since December 2003.**
- **Currently 60 installed in STK silos.**
- **So far, very reliable.**
- **The current support of these drives by HPSS works safely.**
 - ➔ **Is HPSS taking full benefits of all new introduced features?**
- **3592 drives suits very well the requirements of our applications.**
- **We may reduce the number of drives that we planned to install in 2004.**