

THE LANDMARK CPU SPEED TEST: SPEED Version 1.12

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1142 Pomegranate Court

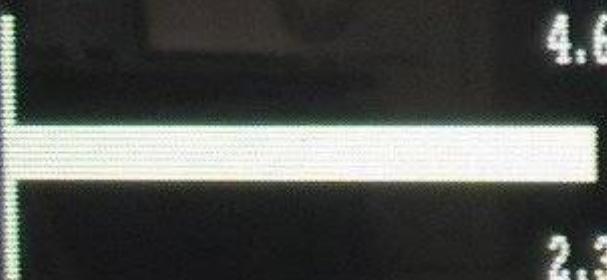
Sunnyvale CA 94087

408-733-4835

This system is performing like an IBM AT running at:



4.6 MHz



2.3x

Performance relative to 4.77 MHz PC or XT:



Current time: 09:32:29

Elapsed time since starting program: 00:00:51

Current test: 79

Elapsed time for the latest test: 221 ms

F1 HELP Q EXIT C LOAD/SAVE \$ LOAD ESC EXIT/CONTINUE





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DISK PERFORMANCE PROGRAM
Ver 1.0

502 S.E. 5th Avenue • Delray Beach, Florida 33444 • 305/276-3929

Press any key to continue ...



This program is used to identify the actual performance specifications of hard disk drives. The evaluation is made using three tests.

First is a track-to-track test which measures access time resulting from loading or reading contiguously stored data. The second test is typical of most business applications which perform a mixture of random and contiguous disk accesses. The last test is the most strenuous and will measure a true random access which is identified by drive manufacturers as the "Average Access Time."

In all cases, 1000 seeks are performed in each of the tests. Results are reported in milliseconds (ms - thousandths of a second). As an example, a drive with an average access time of 20ms is twice as fast as another drive reporting 40ms. IBM specifications for the AT list a track-to-track access time of 10ms and an average access time of 40ms. Drives which show access times less than these values are superior to the standard IBM disk drives. These tests can be run many times without destroying any data.

ENTER DRIVE NUMBER TO TEST (1, 2, OR Q TO END) :



TRACK TO TRACK TEST IN OPERATION identify the actual performance
AVERAGE ACCESS TIME FOR TRACK TO TRACK TEST WAS .00.21 MILLISECONDS

RANDOM & TRACK TO TRACK TEST IN OPERATION
AVERAGE ACCESS TIME FOR RANDOM & TRACK TO TRACK TEST WAS .00.21 MILLISECONDS

RANDOM TEST IN OPERATION
AVERAGE ACCESS TIME FOR RANDOM TEST WAS .00.21 MILLISECONDS

THIS IS THE ULTIMATE IN HARD DISK PERFORMANCE. IT EXCEEDS ALL
IBM SPECIFICATIONS BY MORE THAN THIRTY PERCENT FOR THE PC-AT.

ENTER DRIVE NUMBER TO TEST (1, 2, OR 0 TO END) : -

*NB: Virtual MS-DOS hard disks (C:\ & D:\)
are 'MSDOSVOL' files residing in ProDOS volumes
on BOOTTI USB hard drive emulator card in slot 7 of
a ROM 01 Apple IIGS*



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Seek Times	Hard Disk 0		Bytes Read
Avg. Seek Time : 16.4 ms	Heads	4	2000
Max. Seek Time : 470 ms	Rotations	17	1000
Min. Seek Time : 1088 ns	Time	4.1 msec	500
Data Transfer Rate : 266.2 MB/sec		1000	100
Average Seek Time : 2.4 ms		470	50
Track-Track Seek : 2.4 ms		1000	10
Performance Index : 24.212		500	1
Hard Disk 1		4	1000
Avg. Seek Time : 9.1 ms	Heads	17	1000
Max. Seek Time : 3 ms	Rotations	4.1 msec	500
Min. Seek Time : 748 ns	Time	1000	100
Data Transfer Rate : 184.0 MB/sec		1000	100
Average Seek Time : 2.4 ms		3	50
Track-Track Seek : 2.4 ms		1000	10
Performance Index : 23.723		500	1
HDD	HDI	HDD	HDI

Transfer Block

Hard Disk 0 transfer rate is 45% faster than Hard Disk 1

Hard Disk 1 seek time is 8% faster than Hard Disk 0

Mo Utilities(tm) by Ya'akov. Copyright(c) 1985

Measures average access time of IBM-PC/XT and IBM-PC/AT hard disk
found 2 disks. Which one do you want? 1

Testing 100 cylinders. Measuring...

Testing 1000 cylinders or until any key is pressed...

Measured 1000 seeks in 0 seconds

Avg access (milliseconds)

<< Your >> Disk -> 0.5

PC/XT Disk -> 0.3

Applied Engineering PC/Transporter (Wed 07-05-2023 9:49:49)
C:\WFLIST1

My Utilities(tm) by Ya'akov. Copyright(c) 1985

Measures average access time of IBM-PC/XT and IBM-PC/AT hard disk

Found 2 disks. Which one do you want? 2

...Found 3 cylinders. Recalibrating...

Testing 1000 cylinders or until any key is pressed...

...performed 1000 seeks in 1 seconds

Average access (Milliseconds)

<< Your >> disk → 0.5

IBM-PC/XT disk → 93.3

IBM-PC/AT disk → 73.3

Applied Engineering PC/Transporter (Wed 07-05-2023 9:41:24)
C:\SYNCDIST



Estimate Computer Speed

This routine is written in Turbo Pascal and is composed of some simple loops. It will determine the approximate speed of your computer in millions of machine instructions per second. For example, on a machine running at 4.0 MHz, the estimate would have a ratio of 1.0. The estimate routine should take up to about two minutes.

Press any key to start

Routine:	IBM PC 8088	IBM PC V-20	IBM PC AT 8 MHz	IBM PC AT 8 MHz	Yours
Integer Count	24 (1.0)	23 (1.0)	9 (2.7)	6 (4.8)	12 (2.0)
Real Count	29 (1.0)	26 (0.0)	11 (2.7)	8 (3.6)	17 (2.2)
Table Lookup	26 (1.0)	26 (1.0)	9 (3.0)	7 (4.0)	13 (2.3)
String Manipulation	29 (1.0)	17 (1.7)	18 (2.9)	7 (4.0)	12 (2.4)
Empty Loop	29 (1.0)	25 (1.2)	9 (3.2)	7 (4.1)	13 (2.0)
Total Timing	139 (1.0)	117 (1.0)	48 (2.9)	35 (4.0)	60 (2.2)

Press any key to continue

ATPTEST - PC Tech Journal AI Hardware Performance Test

Version 1.00, Copyright (c) 1986 PC Tech Journal

IBM PC/AT model 339 (8 MHz) = 1.00 for relative measurements.

	Byte	Word	Relative
Average RAM instr. fetch:		1.444 us	0.28
Average RAM read time:	0.297 uS	0.265 us	1.52
Average RAM write time:	1.673 uS	0.19 us	2.11
Average ROM read time:	0.19 uS	0.149 us	2.7
Average Video write time:	1.747 uS	1.49 us	1.62

Clock rate: 4.4 MHz Relative: 0.55

Refresh overhead:

38.5%

Memory	Access width	Wait states
RAM read	Word	-1
RAM write	Strange	-5
ROM read	Strange	-1
Video write	Word	6

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C:\SPEEDTEST\



MEMORY:

Planar	64K
Total	146K
Free	45K
Used	120K:0100H

EQUIPMENT:

Printers	1
Serial Ports	1
Floppy Drives	1
Com Adaptor	1

VIDEO:

Initial Mode	80 x 25 BW/CG
Current Mode	80 x 25 color
Attribute & Cursor	16
Buffer Offset, Length	0, 4096
Video Page	1
Screen Mode	1920
8245 Mode	0
8045 Palette	0

KEYBOARD BUFFER:Capacity: 15
(Characters)Start: 0040:0010H
End: 0040:003DH

MS VER: 5.00

ROM VER: 07/03/87

AC CHECK: OFF

DISK VERIFY: OFF

FREE SPACE ON DISKETTE DRIVES:

A:

DISKETTE PARAMETERS:

BLK	512	Bytes/Sec.	512
TIME	1.9 s	Sec./Track	17
Max PC/Trans 15ter (3d 512h16h15_512h) C:\WP51N			

ENVIRONMENT SETTINGS:

PROMPT	= \$P\$G
PROMPT	= \$P\$U\$G applied Engineering
PWD	= C:\Windows\Temp\Disk\1000

PC-STATUS:Applied Engineering PC/Transporter (Wed 07-05-2023 9:43:05)
C:\WP51N

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PC Shell 1.00 File F1NSK Options Applications Special Help

DISK C10

Advanced Mode

System Information

Computer - IBM PC II

DOS programs dated - 07/20/87

Operating system - DOS 5.00

Number of logical disk drives - 5

Logical drive letter range - A thru E

Serial Ports - 0

Parallel Ports - 1

CPU Type - NEC V20

Relative speed (orig PC-100%) - 22%

Math co-processor present - No

User programs are loaded at HEX paragraph - 1230

Memory used by DOS and resident programs - 74624 bytes

Memory available for user programs - 580736 bytes

Total memory reported by DOS - 640K

PC Shell has found the total memory to be - 640K

Color Graphics Adapter present

Please Esc or click Close box with the mouse to exit.

Applied Engineering PC/Transporter (Wed 07-05-2023 9:38:13)
C:\SPEED\ST>DIR

Volume in drive C is NS-DOS 5
Volume Serial Number is 5321-680C
Directory of C:\SPEED\ST

.	(DIR)	05-22-23	6:25p
..	(DIR)	05-22-23	6:25p
ATTEST.COM	EXE	89894	05-13-87 5:25p
BATMAN.COM	EXE	26608	10-25-86 1:58p
COMTEST.COM	EXE	31999	05-09-87 1:31p
CLON.COM	COM	384	11-08-87 6:22p
DISPERSE.EXE	EXE	7936	03-02-87 6:51p
DISSETIME.COM	COM	13924	08-04-86 2:07p
DISSETT.COM	COM	2072	10-11-86 0:36a
LAWMAK.COM	COM	4936	10-11-86 9:10a
MAP.COM	COM	24444	05-09-90 3:09p
PCSTATUS.COM	COM	10256	08-05-86 1:34p
SSE-V2.COM	COM	17409	07-27-86 12:33a
13 file(s)		202232 bytes	
		995640 bytes free	

Applied Engineering PC/Transporter (Wed 07-05-2023 9:38:15)
C:\SPEED\ST>

