

MPL-10

TO: Multics Performance Log

DATE: 3/10/69

FROM: R. J. Feiertag

SUBJECT: Multics System Performance Certification Record

I Variable settings: operating system

System being certified: 1.12

Certifier used: Multics-test-c Script used: Cert1

Number of processes used: 4

Typewriter output: Yes No Number of lines output:

System Segment Table Size: 12288

Number of permanently wired pages:

Maximum number of processes eligible for multiprogramming: 2

Maximum number of processes which may be loaded: 2

Scheduling Quanta, starting with highest-priority queue:

1. 8 2. 8 3. 8 4. 8 5. 6.

II Hardware configuration

Amount of Core Memory: 256K

Number of processors: 1

Firehose Drum: Yes No

Disk Yes No

Installation used: MAC

Date of Certification run: March 8, 1969

Time of Certification run: 21:46 EST

III Other factors expected to influence measurements:

IV Measurements

a. CPU time breakdown	during process creation	during command sequence	total
1. Time used by subject processes		571.6 sec.	
2. Time spent loading processes		} 109.1	
3. Time spent in file system daemon			
4. Idle time due to eligibility control			
5. Idle time during page waits			
6. True idle time			
Total CPU time charged			680.7

b. Breakdown of CPU times used by subject processes

1. Missing-page fault time	38.5 sec.	232.7	271.2
2. Missing-segment fault time	16.7	18.4	35.1
3. Linkage fault time	4.5	41.7	46.2
4. Wall crossing fault time	7.2	26.2	33.4
5. Interrupt handling time	0.6	4.5	5.1
6. Non-fault time		248.1	
Total		571.6	

Certification of System: 1.12

c. Fault times and number

Process Creation	missing page	missing segment	Linkage	wall crossing	Interrupt
average fault time	15.9 ms	45.8	68.2	2.9	1.1
number of faults	2418	364	946	2490	544

command sequence

average fault time	16.0 ms	90.5	46.6	2.9	2.3
number of faults	14531	203	895	9014	1944

d. Average times seen by a process

1. Average real time for completion of a process: 653.2 sec.
2. Average process creation time:
3. Average time for execution of command sequence: 142.9 sec.
4. Time for CTSS to execute same command sequence. 37.6 sec.
5. Performance relative to CTSS (#4/#3) .26

V Output of original run may be found in file labeled:

VI Comments: