

MPL-11

TO: Multics Performance Log

DATE: 3/10/69

FROM: R. J. Feiertag

SUBJECT: Multics System Performance Certification Record

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I Variable settings: operating system

System being certified: 2.1

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

Number of processes used: 4

Typewriter output: Yes  No       Number of lines output: 664

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: 21:13 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		528.4 sec.	
2. Time spent loading processes		} 105.1	
3. Time spent in file system daemon			
4. Idle time due to eligibility control			
5. Idle time during page waits			
6. True idle time			
<b>Total CPU time charged</b>	<hr/>	<hr/> 633.5	<hr/>

b. Breakdown of CPU times used by subject processes			
1. Missing-page fault time	40.1 sec.	203.3	243.4
2. Missing-segment fault time	15.6	14.8	30.4
3. Linkage fault time	62.1	33.9	96.0
4. Wall crossing fault time	6.7	25.4	32.1
5. Interrupt handling time	0.5	4.1	4.6
6. Non-fault time			
<b>Total</b>	<hr/>	<hr/> 246.9	<hr/>
		528.4	

## Certification of System:

## c. Fault times and number

Process Creation	missing page	missing segment	Linkage	wall crossing	Interrupt
average fault time	16.2 ms	45.2	68.4	2.9	1.1
number of faults	2480	344	908	2314	444

command sequence

average fault time	15.4 ms	84.7	45.4	2.9	2.2
number of faults	13219	175	748	8748	1833

## d. Average times seen by a process

1. Average real time for completion of a process: 607.7 sec.
2. Average process creation time:
3. Average time for execution of command sequence: 132.1 sec.
4. Time for CTSS to execute same command sequence. 37.6 sec.
5. Performance relative to CTSS (#4/#3) .28

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

VI Comments: