TO: Multics Performance Log DATE: 3/12/69

FROM: R.J. Feiertag

SUBJECT: Multics System Performance Certification Record

I Variable settings: operating system

System being certified: 1.9

Certifier used: multics_test_c Script used: cert. 1

Number of processes used: 4

Typewriter output: Yes [x] No [ ] Number of lines output: 664

System Segment Table Size: 16384

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 [x] No [ ]

Disk Yes [x] No [ ]

Installation used: MAC

Date of Certification run: March 12, 1969

Time of Certification run: 4:30 est

III Other factors expected to influence measurements:

Certification of System: 1.9

IV Measurements

a. CPU time breakdown	during process creation	during command sequence	total
1. Time used by subject processes		745.5 sec.	
2. Time spent loading processes			
3. Time spent in file system daemon		90.4	
4. Idle time due to eligibility control			
5. Idle time during page waits			
6. True idle time			
Total CPU time charged		835.9	

b. Breakdown of CPU times used by subject processes

1. Missing-page fault time	33.2 sec.	202.1	235.3
2. Missing-segment fault time	44.3	224.3	268.6
3. Linkage fault time	61.2	43.7	104.9
4. Wall crossing fault time	7.0	27.0	34.0
5. Interrupt handling time	0.5	4.3	4.8
6. Non-fault time		244.1	
Total		745.5	

Certification of System: 1.9

c. Fault times and number

Process Creation	missing page	missing segment	Linkage	wall crossing	Interrupt
average fault time	13.6 ms.	40.5	64.5	3.0	1.0
number of faults	2441	1095	948	2370	453

command sequence					
average fault time	13.4 ms	39.0	47.3	3.0	2.2
number of faults	15093	5748	924	8876	2001

d. Average times seen by a process

1. Average real time for completion of a process: 806.0 sec.
2. Average process creation time:
3. Average time for execution of command sequence: 186.4 sec.
4. Time for CTSS to execute same command sequence. 37.6 sec.
5. Performance relative to CTSS (#4/#3) .20

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

VI Comments: