

INTERDEPARTMENTAL

MASSACHUSETTS INSTITUTE OF TECHNOLOGY CAMBRIDGE, MASS. 02139

from the office of

March 31, 1970

TO: Multics Administrative Distribution  
FROM: J. H. Saltzer  
SUBJECT: PDP-8 Script Performance Comparison between CTSS and  
Multics System 7.0, 4.0, and 3.0.11

All figures are for two passes through the standard "Fortran debugging" script.

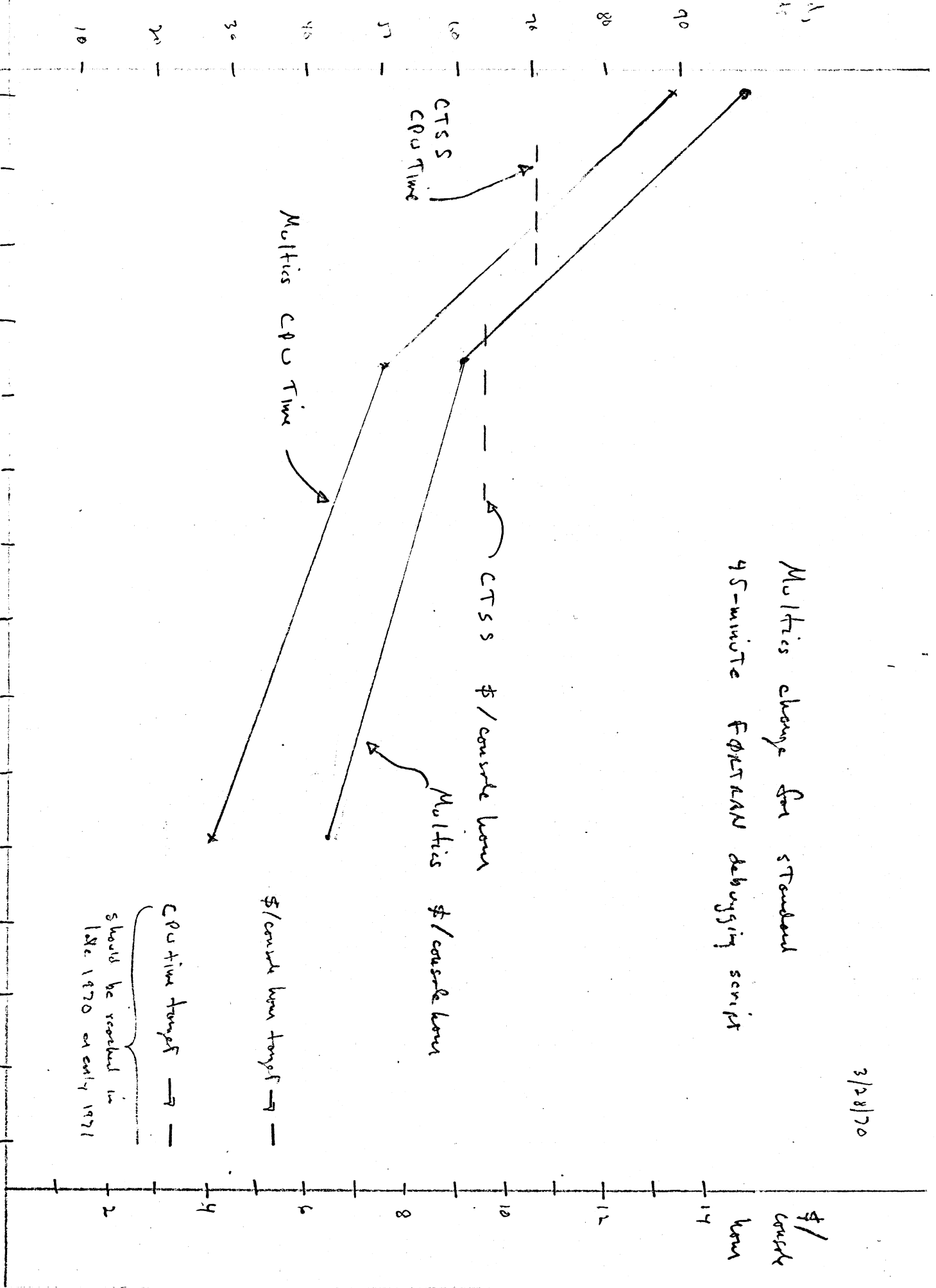
	Multics 3.0.11 6/25/69	Multics 4.0 9/25/69	Multics 7.0 3/30/70	CTSS 8/1/69
Average load while measuring	12 users	24 users	21 users	17 users
CPU Time charged	87.9 sec.	50.3	28.7	70.97 sec.
Real time required	2702 sec.	2520	2298	2434 sec.
CPU time per interaction	1.91 sec.	.79	.436	1.07 sec.
Average response time	~18 sec.	12.4	5.2	5±1 sec.
Dollar charge	\$11.01	\$6.55	\$3.99	\$6.50
Cost per console hour	\$14.70/hr.	\$9.10/hr.	\$6.27/hr.	\$9.62/hr.

1. All prices are based on a Multics CPU charge of \$420/hr, a Multics dialup charge of \$1/hr, a CTSS CPU charge of \$330/hr, and no CTSS dialup charge.
2. Note that this script is, on balance, a smaller than average user of core memory, and is unfavorably charged by a Multics CPU price based on average core memory usage.

CPU Time  
changed,  
seconds

3/28/70

Multics change for standard  
45-minute FORTRAN debugging script



Costive tempf →  
Should be recorded in  
Mx 1970 or early 1971

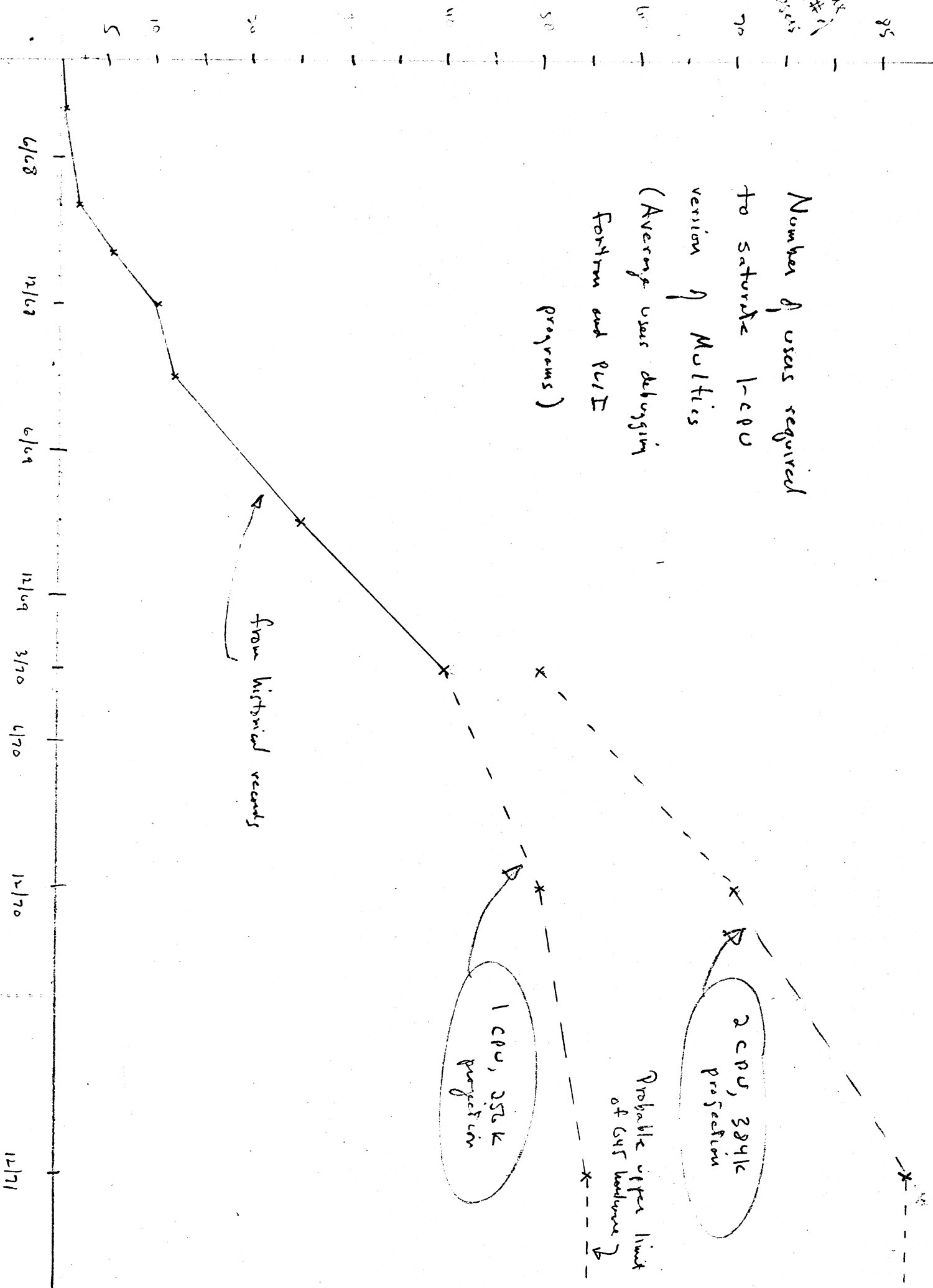
\$/console hour tempf →

date →

S. A. Salter

Nov # 21

Number of users required  
 to saturate level  
 version of Multics  
 (Average users debugging  
 Fortran and PL/I  
 programs)



3/25/70 SW Soltman