

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.

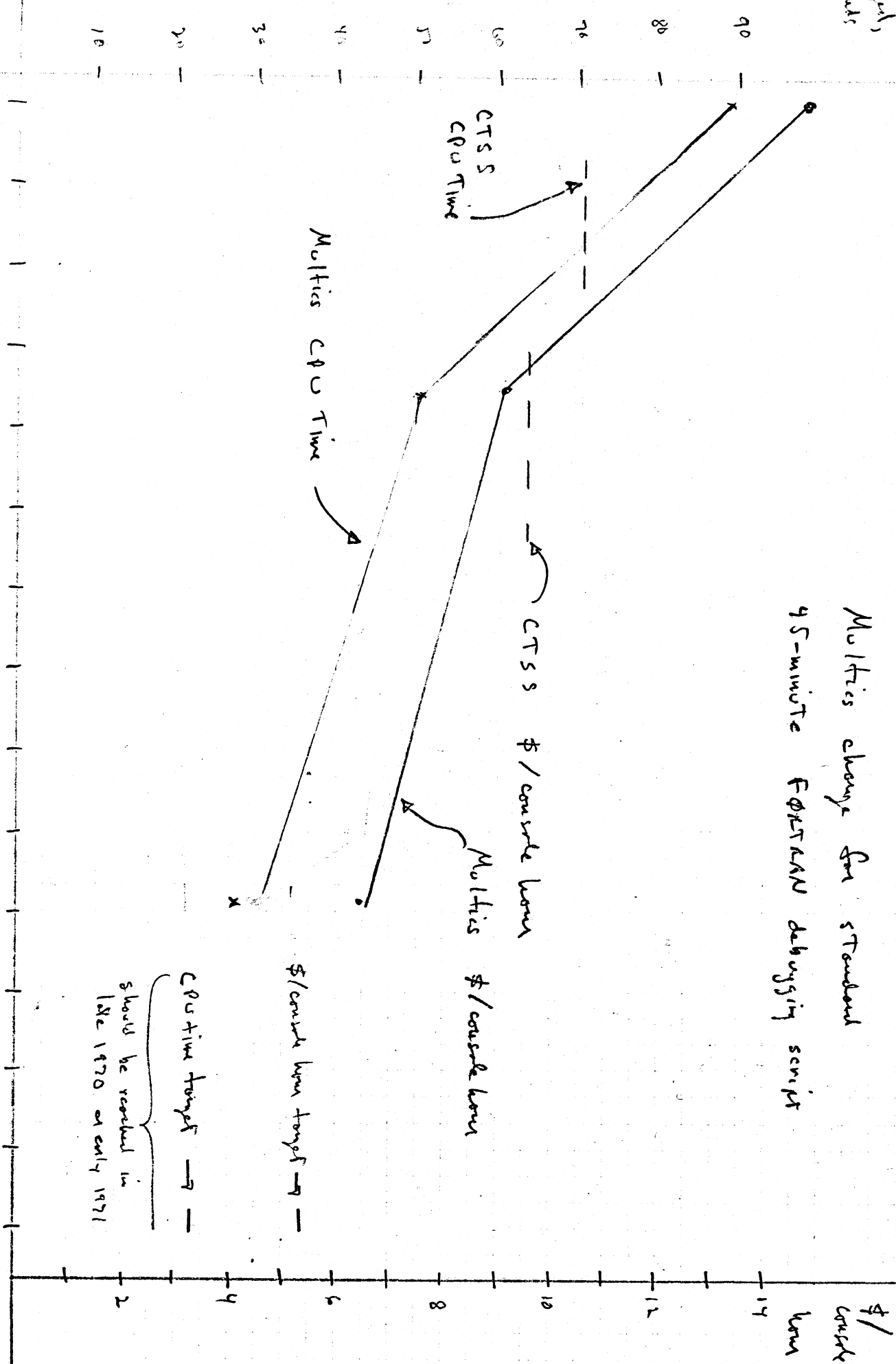
	Multics 3.0.11 6/25/69 12 users	Multics 4.0 9/25/69 24 users	Multics 7.0 3/30/70 21 users	CTSS 8/1/69 17 users
Average load while measuring				
CPU Time charged	87.9 sec.	50.3	28.7	70.97 sec.
Real time required	2702 sec.	2520	2298	2434 sec.
CPU time per interaction	1.91 sec.	.79	.436	1.07 sec.
Average 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



CPU time target -> -
 should be reached in
 late 1970 or early 1971

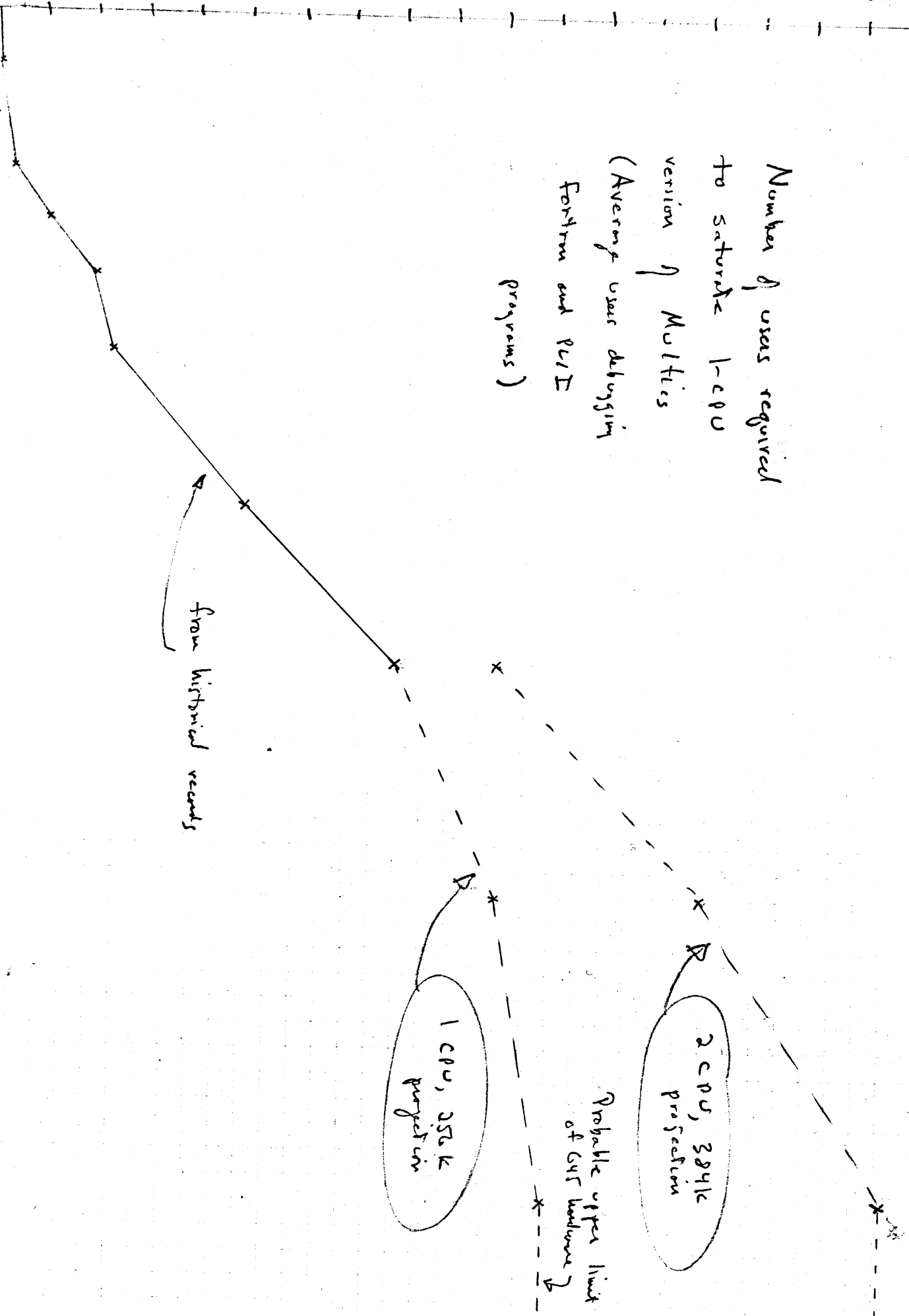
date ->

S.A. Saltman

Max # of users

Number of users required to saturate 1-CPU version of Multics (Average users debugging Fortran and PL/I Programs)

6/68 12/68 6/69 12/69 3/70 6/70 12/70 12/71



3/25/70 S W Saltzman