

INTERDEPARTMENTAL

MASSACHUSETTS INSTITUTE OF TECHNOLOGY CAMBRIDGE 39, MASS.

from the office of Information Processing Services

May 19, 1970

To: J. H. Saltzer
A. Sekino

From: J M Grochow *JMG*.

Subject: Use of the PDP-8 Time-Sharing User Simulator

I think that we can derive much greater benefit from the PDP-8 User Simulator if we undertake a program similar to the following:

1. Design a series of scripts aimed at exercising different system characteristics. For instance, a typical set might be:
 - a. Computation: a long, numerical analysis program.
 - b. Non-interactive paging: a long PL/I compilation.
 - c. Highly interactive: a large editing task.
 - d. I/O: printing long files, use of magnetic tapes.
2. Run each of these programs in three different ways:
 - a. Only user on the system: this might take an hour of system time every time a new system is installed.
 - b. The whole series simultaneously but without other users: this might be considered a "user mix".
 - c. At some time when the system is regularly loaded.

By comparing the results of these tests we should be able to get more realistic comparisons between systems and user loads than the current "Fortran user script" currently gives. I think that the Fortran user script has been very valuable but that we can get a lot more information in the long run for a little extra effort in designing more scripts.

Reference: "Evaluating Time-Sharing Systems using the Benchmark Method",
Data Processing Magazine, May, 1970.

cc: Multics Administrative Distribution