

from the office of

Information Processing Center

To: All IPC Staff Members

From: W. J. Burner

Subject: Goals for the Multics Service and Plans for the Period until
September 15, 1970

Date: July 20, 1970

This letter follows up my comments at the Programming Staff Meeting of July 17.

Three major goals have been set forth regarding the Multics Time-Sharing Service at a recent meeting of the Multics Planning Group, and, needless to say, much of the responsibility in achieving these objectives lies within the Information Processing Center. Those of you who are directly involved with providing Multics as a service to the Institute will be counted on heavily during these next two months.

The goals themselves constitute the three major areas of evaluating Multics' usefulness in providing the general time-sharing service to members of the MIT community for a number of years. To continue along as we have during the past 8 months, since Multics was originally offered, would be fooling ourselves in believing that such sub-standard performance would be acceptable to the users, or even representative of MIT. The measures of success are in the areas of providing both hardware and software reliability as well as a reasonable set of operations, procedures, and documents. In a nut shell, we are challenging ourselves in either doing all that is necessary or proving that it cannot be done. The goals are as follows:

1. Goal: Make hardware reliable or prove that this cannot be done.

Criteria: No more than one service interruption due to hardware per day as an average. Maximum of three hardware crashes per day on "very bad days". No more than one "reload" per month (catastrophic failure of drums or disks). Full configuration should be runnable (i. e., all equipment working) at least 75 per cent of the time. No more than five hours per week of unscheduled down time because not enough hardware to run a Service Configuration.

2. Goal: Make software reliable or prove that this cannot be done.

Criteria: No more than one service interruption due to software per day as an average. Maximum of three software crashes per day on "very bad days". Mean time to recovery for software failures should be fifteen minutes with a maximum of one hour. All "Standard Service" software should be working when the system is in operation. No more than one Standard Service software problem, lasting no more than one hour per day.

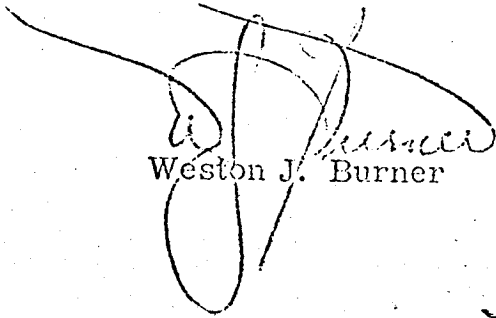
3. Goal: Make procedures and organization operable, useful, and predictable or prove that they cannot be.

Criteria: (These may overlap other system criteria.) Unscheduled service interruptions should occur no more than twice a day and should last for no more than fifteen minutes as an average. Transition up-down-up should be as smooth as possible. User services should be readily available and easily usable (as determined by user comments). Everyone should know who has what responsibility and authority.

The task which we face in making Multics a reliable, easy to use, expanding computer service is different in many ways from other assignments we have. To begin with, the hardware and software have been developed jointly between MIT's Project MAC and the computer people of the General Electric Company. Our role will, in a sense, complete the other side of the triangle. We cannot deal with either of the other two participants as if they were "vendors," we need them and they need us. The total success of the project is dependent upon an increasing degree of communication and understanding of one another's needs and problems.

By September 15, we will have reached a significant milestone in the total Multics success story. It is at that time when the new academic year will see many people returning to Multics and new people approaching it for the first time. Our progress towards meeting the assigned goals will dictate the Multics Planning Group's decision as to how the service will be offered to the Community. Shall they use it with impunity or caveat?

My own personal feeling is that to allow this program to fail would have a drastic effect upon all of us in the community. Multics is without a doubt the most advanced multiple-access computer system in the world today. Each of us needs to do his very best to ensure that it is a success.



Weston J. Burner