

MULTICS STAFF BULLETIN-41

TO: Distribution  
FROM: T. H. VanVleck  
DATE: April 11, 1972  
SUBJECT: User Control Changes

Some minor elaborations to the user control scheme have been made. Users other than staff programmers probably won't be affected.

The first change is a modification to the load control group mechanism. The maximum number of primary load units for a group is now expressed as

$$A + (B/C * \text{maxunits})$$

so that a group may have a variable maximum number of primary units depending on system capacity. Each group continues to have an absolute maximum number of load units, and one group in the system may have the special maximum primary units of "all the rest", i.e., system maxunits -- (sum of all other group's maxima).

Effective Wenesday, March 29, the system programming group will have a maximum of

$$0 + 15/54 * \text{maxunits}$$

so that our limit will be 15 primary units on a full configuration, and 11 on a crippled (i.e., 41 -- unit) system.

The second change is that the answering service is now conscious of the configuration, and will attempt to set maxunits automatically according to a table in the installation parameters segment "installation\_parms", which gives maxunits, absentee maximum users and maximum queue for each combination of number of CPU's, number of memories, and shift. Initially, this facility will be used to set maxunits at system startup time and on request only; any manual change to maxunits will disable the automatic mode.

The table is set up to reflect our current policy, so the only difference will be that some extra messages will be typed by the system.

Automatic setting of maxunits brings us another step closer to dynamic load control, a newly suggested name is "response control". The approach that will be taken is to allow the system to vary the value of maxunits dynamically, as system load varies. Maximum and minimum values for maxunits are provided in the configuration table described above.

We are currently engaged in investigations of sensible load-detection and maxunits-adjustment policies.