To: Multics Staff

From: Dennis Capps

Subject: New Runoff Command Written in PL/1

Date: 07/26/74

     PDO has begun work on a new runoff command to be written in
PL/1. The objectives of this project are:

    1) to duplicate the functions of the current runoff, as
       described in the MPM, in a PL/1 program for easier
       maintenance and modification. We expect it to be as
       efficient as or better than the current BCPL runoff.

    2) to produce an implementation that can be transferred
       relatively easily to our IBM machines.

     The functional organization of the new runoff will be very
similar to that of the old.   However, as there are striking
differences between BCPL and PL/1, data organization and coding
of functions will often be quite different.   The multiple data
types and the string-handling facilities of PL/1 are two obvious
features affecting this difference.

     The separation of system-dependent code from system-
independent code will be maintained and (perhaps) increased.
There will be a main kernel, to do the bulk of the runoff
processing, surrounded by a wrapper which will interact with the
system to provide storage and I/O. The wrapper will be kept as
small as possible as it, of course, is the part which must be
replaced when transferring runoff to OS or some other system.

     We already have received several suggestions for extensions
or additions to the runoff capabilities. In the first version we
will only duplicate the current capabilities unless a proposed
change is seen to be _trivial_. Nonetheless, as we may consider
subsequent changes when the first version is completed, we would
appreciate that any suggestions be made now so that we can keep
them in mind and, if feasible, leave appropriate hooks in the
code.   These suggestions should be made in writing so that I can
keep track of them and their exact specifications. I am willing
to talk about such suggestions also, but cannot guarantee that I
will remember all details if they are not written down.   Send
mail to:
           Dennis Capps, 39-523, M.I.T.; 253-4101
or   Capps PDO