To: Distribution

From: Richard A. Barnes

Subject: Internal Entry Sequences in pl1_operators_

Date: 03/19/75

        This MTB proposes to shorten the int_entry and
int_entry_desc operators in pl1_operators_ by one instruction.
These operators are invoked from pl1 compiled code at the entry
points of non-quick internal procedures. The proposal is to get
the linkage pointer for the new stack frame from the display
stack frame rather than from the LOT. This change has one
implication that could be serious. Internal procedures would
have to be called with valid display pointers; otherwise, a fault
might occur, or an invalid linkage pointer might be stored. This
is not a problem if the procedure is called normally inside a
PL/I program or if it is called by use of an entry variable
constructed according to the PL/I rules (by assignment of an
entry constant to an entry variable). It is possible, however,
that some programs cheat by using a null display pointer. They
would fail under this plan.

        Comments on this MTB would be appreciated.