TO: MSPM Distribution
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The calling sequence to the Connect procedure has been
revised to reduce the amount of work done in the EPLBSA
subprogram to the absolute minimum necessary to perform
the privileged instruction. The old calling sequence
required that the EPLBSA routine concatenate two EPL bit
strings, an operation more appropriately performed by
the EPL caller.

Identification

Connect Procedure
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Purpose

The purpose of the connect procedure is to cause a connect
signal to be sent by a system controller to the active
device configured on the designated system controller
port. The signal is initiated when a processor issues
a GE645 connect instruction (cioc y). This instruction
must be executed by a processor in the master mode.

Discussion

Before attempting to read and understand this document
it would be advantageous to review first the documents
of Section BC.1. These documents describe the hardware
configuration, hardware terminology and the hardware restrictions
which are implicit in the discussion of the connect procedure.

The connect instruction is a privileged instruction in
the sense that it can only be executed by a processor
in the master mode. The "control processor" concept does
not apply however. In other words any processor can issue
a connect to any active device.

The operand word determined by the effective address of
the connect instruction designates in the low order 3
bits (33, 34, 35) the system controller port (0-7) which
is to receive the connect signal (sent by the system controller).
The remaining bits (0-32) of this word may or may not
contain information for the active device depending on
the type of active device on the system controller port.

Restrictions

The prototype "fire hose drum" requires that the connect
operand word be physically located in a memory location
controlled by the system controller which also contains
the memory location designated on the drum base address
switches. All other active devices do not have this restriction.

CALLING SEQUENCE

The calling sequence is:

    call master_mode_ut$cioc(cow);

    where cow is a 36 bit aligned connect operand word.
    The connect procedure assumes that the GIM or drum
    dim has previously loaded cow with the required connect
    operand word, including the correct port number in the
    3 least significant bits. (The port number must have
    been obtained from the GIOC, or drum, port connection
    table described in BK.4.01.) In addition, the drum
    dim must insure that cow is stored in the same system
    controller as the drum base address. (The hardware
    imposes this restriction.)

Operation

The only action taken by the connect procedure is to execute
a CIOC instruction, whose effective address points to
cow, and then return to the caller.