Relocatable (Segment) Octal Package

An octal package has been written to aid in debugging segmented programs. This octal package is itself a segment, so that it may be called into core and relocated as needed. The user may assemble a trap to this octal package into his segment program by use of the ERRØR macro. The user may also select this octal package from the Executive as program .RØPAK.

The standard command format for this octal package is a command letter, an optional blank, and one or more unsigned octal integers. The command is terminated by a carriage return. The octal integers are separated by commas. The first integer may be replaced by a 2-component address of the form

    m/n

where m is either the segment ID (in octal) or the segment name (in ASCII), and n is the relative address (RA) within the segment (in octal). If the

    m/

is omitted, then n is the RA within the same segment referenced by the previous command. The user may reference two pseudo-segments:

    /n

that is, the null segment, is equivalent to segment 0, which means an absolute address. Thus, the user may reference any known core location.

The pseudo-segment

    #n

(used without the /) denotes thread temporary locations .TO-.T17, and .IØCP (#20) and .IØTCH (#21).

If the octal package detects an input error, it types out the input line up to and including the last character read before the error was detected, followed by a question mark.

The list of commands follows:

null   (User just types carriage return.) Dumps
                        some of the thread state, specifically,
                        .RP0-.RP7, the CALL push-down list, the
                        JCALL push-down list, .T0-.T17, .IØCP,
                        and .IØTCH.

D a,b   Dump a through b, where a is an address as
                        described above, and b is just an RA. If b
                        is omitted or less than a, a single location
                        is dumped. The address retained after the dump
                        is b+1 (or a+1, if b<a).

L a,x,...,y   Load x,...,y into sequential locations starting
                        at address a. After loading, the retained
                        address is one beyond the address of y.

T a   Plant a trap to the octal package at address a.
                        The retained address is not affected by this
                        instruction.

J a   Jump to address a. The value of the RA part of
                        the address must not exceed 777_8. The A, B, and
                        C registers are restored to the values they
                        contained upon entry, unless modified as described
                        below.

A n   Change the retained A content to n.

B n   Change the retained B content to n.

C n   Change the retained C content to n (0 or 1).