Identification

BOS patch command-PATCH
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Purpose

PATCH is a BOS command program which provides the programmer
with a simple method of examining and modifying the contents
of machine registers, core locations, and drum positions.

Usage

To call in the PATCH program from BOS command level, type:

        PATCH

The patcher will be brought into core and started. Whenever
the patcher is started, it will wait for request lines
from the operator's console. The following requests are
recognized (see below for an explanation of what addresses
are legal for addr):

1.   addr   the contents of addr will be typed

2.   SET addr cont   addr will have its contents set to cont

3.   DBR loc -bits-   the dbr which the patcher uses will be
                        set to loc. If bits is supplied it will
                        set the bound and paging bits.

4.   (empty line)   the patcher will look for commands from
                        the card reader. If none are found it
                        will return to the console.

5.   TTY   the patcher will look for commands from
                        the console

6.   DRUM sect loc   the contents of location loc within drum
                        sector sect will be typed

7.   DRUM SET sect loc cont   the contents of location loc
                        within sector sect will be set to cont

8.   BRK addr   the contents of location addr will be
                        set to the instruction DRL 0

9.   FLT seg ↑ offset   a directed fault 5 will be set in
                                    the PTW for the location selected.

10. QUIT   control returns to BOS

11. GO   a chain of QUIT, CONTIN

For requests 1 and 2, addr may be

   a) an absolute address

   b) a segment address in the form "segno ↑ loc"

   c) a register designator

All parameters should be separated by spaces. The up-arrow
in a segmented address is a separate parameter. Numbers
are all octal and may be 12 digits long. If the patcher
dislikes some argument or does not recognize a command,
it will type a question mark. Whenever the patcher makes
a change, it types a comment giving absolute address,
old contents, and new contents; this is important for
the BRK and FLT requests, since each time the patcher
is entered it is a fresh copy, and so breakpoints cannot
be restored.

The legal register designators are:

A	X0	X4	AP	LP
Q	X1	X5	AB	LB
E	X2	X6	BP	SP
TR	X3	X7	BB	SB
PBR	ILC	DSBR		

Note that "PBR" and "ILC" represent the BOS returns location,
and that "DSBR" is the value of the DBR in the BOS machine
conditions which will be used for restore, not the DBR
value simulated by the patcher as it examines core.