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TITLE	8K FORTRAN BIT MANIPULATION SUBROUTINES
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8K FORTRAN BIT MANIPULATION SUBROUTINES

DECUS Program Library Write-up

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Programming Notes for LBYT and SBYT Subroutines when Using PDP-8 8K Fortran

These notes describe two closed subroutines which may be used by the FORTRAN programmer for bit manipulations. One page of core and EAE are required by each subroutine.

1. LBYT function subroutine. This subroutine will load a byte of length LENTH from word KWORD and store it right-adjusted in the fixed accumulator. LSB is the rightmost (least significant) bit of byte.

Calling sequence: A = LBYT (KWORD, LSB, LENTH)

A: Any variable
KWORD: Any integer
LSB: Least significant bit position of byte. Range from Ø to 11 inclusive
LENTH: Byte length. Range from Ø to 12 inclusive

2. SBYT subroutine. This subroutine will load a byte from IBY TE, left-adjust by LFTAJ places and store in INTGR, where LENTH is the byte length.

Calling sequence: Call SBY T (INTGR, LFTAJ, LENTH, IBYTE)

INTGR: Any integer
LFTAJ: Number of bit positions to left-adjust byte. Range from Ø to 12 inclusive
LENTH: Byte length. Range from Ø to 12 inclusive
IBYTE: An integer containing the desired byte right-adjusted

NOTE: Function subroutine LBYT may be used in place of the fourth argument IBYTE if desired.