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DECUS NO.	8-94B
TITLE	BLACKJACK "OVERLAYS"
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DATE	
SOURCE LANGUAGE	

ATTENTION

DECUS Program Library Write-up   DECUS No. 8-94B

This patch contains two overlays for the Blackjack Program
(DECUS No. 8-94A). The first eliminates the need for the
EAE hardware, the second allows one to "double down" on
any two cards with the instruction "D" (0 response to
"HIT?" is made invalid).

With these overlays the Blackjack Program will run on any
4K PDP-5, PDP-8, 8/S, or 8/I.

```
        J=0024
        *0021
DV,         DIVD
MU,         MULT
        *4020
DIVD,       0
            DCA TEM1
            DCA J
            TAD I DIVD
            CMA IAC
            DCA TEM2
            TAD TEM1
            TAD TEM2
            SPA
            JMP DOWN
            ISZ J
                    JMP .-4
DOWN,       TAD I DIVD
            ISZ DIVD
            JMP I DIVD
        *4040
TEM1,       0
TEM2,       0
TEM3,       0
        *4000
MULT,       0
            DCA TEM1
            DCA TEM2
            TAD I MULT
            CMA IAC CLL
            DCA TEM3
UP,         TAD TEM1
            SZL
            ISZ TEM2
            CLL
            ISZ TEM3
            JMP UP
            DCA J
            TAD TEM2
            ISZ MULT
            JMP I MULT
        *3464
            JMS I MU
        *3466
            TAD J
        *3513
            JMS I DV
        *3517
            TAD J
        *3562
            JMS I MU
        *3564
            TAD J
        *3571
            JMS I DV
        *3653
            JMS I DV
        *1130
            JMS I MU
        *1132
            TAD J
```

```
L
/            DOUBLE DOWN CHANGES
  I=157
  CHCK=1311
  *4450
DOUBLE,  0
            TAD FLAG
            SZA CLA
            JMP I K3
            TAD I C1
            TAD I C1
            DCA I C1
            TAD K1
            DCA I C2
            JMP I DOUBLE
HERE,       CLA CLL
            TAD K2
            DCA I C2
            JMP I C3
C1,         4154
C2,         2693
C3,         2624
K1,         JMP I 024
K2,         4524
K3,         2625
/
CO=0033
*2615
            TAD CO
*2617
            JMS I 023
*1310
CHECK,      JMP AHEAD
*1371
AHEAD,      CLA
            DCA FLAG
            JMP BACK
*3023
023,        4450
024,        HERE
FLAG,       0
/
UP=2621
*2620
            JMP DOWN
*2756
DOWN,       TAD H0
            DCA FLAG
            TAD H0
            JMP UP
```