



# DECUS

## PROGRAM LIBRARY

DECUS NO.

8-97

TITLE

GOOF

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COMPANY

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SOURCE LANGUAGE

# GOOF

DECUS Program Library Write-up

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"GOOF" is a one-page program which allows the insertion of instruction (xxxx) in location (NNNN) by means of the TTY keyboard. A feature of automatically incrementing the current address permits rapid insertion of blocks of data or instructions. Typing "RUB-OUT" reinitializes the program.

Storage:           175g locations

Program listing follows.

\*4000

//PROGRAM INSERT INSTRUCTION (XXXX) IN LOCATION  
//(NNNN). TO AUTOMATICALLY INCREMENT LOCATION  
//TYPE "I" AFTER THE "\*" AND INSERT INSTRUCTIONS ONLY  
//THERAFTER. TO RESTORE NORMAL OPERATION OR DELETE  
//AN ERROR TYPE "RUBOUT".

STRT,JMS CRLF  
JMS CRLF  
DCA FLAG  
TAD FRST  
DCA LOC /SET "I" RESPONCE IN "RD" SUBR.  
RETRN,TAD P252  
JMS TYPE /TYPE "\*"   
JMS ROT /GO FORM ADDRESS  
SNA  
JMP NXT  
DCA FLAG  
TAD P311 /TYPE "I",OPERATOR TO INCR. ADDR'S  
JMS TYPE  
JMP RETRN  
NXT,TAD ACC /GET FORMED ADDR.  
DCA ADDR /STORE IT  
NUMB,TAD P240 /TYPE TWO SPACES  
JMS TYPE  
TAD P240  
JMS TYPE  
JMS ROT /GO FORM INSTRUCTION  
TAD ACC /GET FORMED INSTRUCTION  
DCA I ADDR /SET IT  
TAD FLAG  
SNA CLA /INCR. ADDRS. ?  
JMP STRT /NO  
ISZ ADDR //YES, INCR. ADDR.  
JMS CRLF  
TAD P252  
JMS TYPE /TYPE "\*"   
TAD ADDR  
JMS OCTPCH /GO PRNT. NXT. ADDR.  
JMP NUMB /GET NXT. NUMB.

FLAG,0  
FRST,JMP XI  
P252,252  
P311,311  
ACC,0  
SCND,NOP  
ADDR,0  
P240,240  
INDX,0  
SAFE,0  
P7,7  
M260,0-260  
CODE,260  
M4,0-4  
M10,0-10  
M311,0-311  
M66,0-66  
P277,277  
LF,212  
CR,215

//SUBROUTINE TO TYPE OCTAL NUMB  
OCTPCH,0

RAL /ROTATE FOR LINK  
DCA SAFE /STORE ACCUMALATOR  
TAD M4  
DCA INDX /SET COUNTER  
AGAIN,TAD SAFE  
RIL  
RAL /ROTATE FOR A NUMB.  
DCA SAFE  
TAD SAFE  
AND P7 /MASK FOR LAST THREE CHARACTERS  
TAD CODE /BIAS FOR TTY  
JMS TYPE  
ISZ INDX /DONE 4X ?  
JMP AGAIN  
JMP I OCTPCH

CRLF,0

TAD CR  
JMS TYPE  
TAD LF  
JMS TYPE  
JMP I CRLF

//SUBROUTINE TO FORM FOUR CHAR. NUMB  
ROT,0

TAD M4  
DCA INDX /SET COUNTER  
ROTS,DCA ACC /SET ACCUMALATOR  
JMS RD /GET TTY CHAR.  
SZA  
JMP I ROT /EXIT IF ACC(=/0)  
TAD SAFE /GET CHAR.  
JMS TYPE  
TAD SCND  
DCA LOC /DELETE "I" RESPONCE IN "RD" SUBR.  
TAD SAFE  
AND P7 /MASK LST. 3 DIGITS  
TAD ACC  
ISZ INDX /DONE 3X ?  
SKP /NO  
JMP ROTX  
CLL RTL  
CLL RAL /ROT. 3 LEFT  
JMP ROTX /GET NXT. CHAR.  
ROTX,DCA ACC /FULL NUMB.  
JMP I ROT

TYPE,0

TL5  
TSF  
JMP --1 /WAIT TILL DONE  
CLA  
JMP I TYPE

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//SUBROUTINE TO READ AND TEST TTY CHAR.
RD,0
KSF
JMP .-1      /WAIT FOR CHAR
KRB
DCA SAFE
TAD SAFE
TAD M260     /CHAR<0
SPA
JMP WRONG   /YES
TAD M10     /NO
SPA CLA     /CHAR>7 ?
JMP I RD    /NO, EXIT ACC(0)
TAD SAFE    /YES, WHAT IS CHAR
TAD M311
SNA        /CHAR =I
LOC,JMP XI  /YES--(LOC SET BY ENTERANCE TO ROT
TAD M66    /NO
SNA CLA    /CHAR . = "RUB OUT"
JMP STRT   /YES
WRONG,CLA
JMP RD+1   /TRY AGAIN
XI,IAC
JMP I RD   /EXIT WITH ACC(1)
$$$$$

```