DECUS NO. 8-97

TITLE GOOF

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SOURCE LANGUAGE 

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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: 1758 locations

Program listing follows.
*4000
//PROGRAM INSERT INSTRUCTION (XXXX) IN LOCATION
//(NNNN).  TO AUTOMATICALLY INCREMENT LOCATION
//TYPE "I" AFTER THE "*" AND INSERT INSTRUCTIONS ONLY
//THEREAFTER TO RESTORE NORMAL OPERATION OR DELETE
//AN ERROR TYPE "RUBOUT".

STRI, JMS CRLF
JMS CRLF
DCA FLAG
TAD FRST
DCA LOC  /SET "I" RESPONSE IN "RD" SUBR.
RETN, 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 RETN
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
OCIPCH, 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 OCIPCH
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
    ROFS, DCA ACC / SET ACCUMALATOR
    JMS RD / GET ITY CHAR.
    SZA
    JMP I ROT / EXIT IF ACC(=/0)
    TAD SAFE / GET CHAR.
    JMS TYPE
    TAD SCND
    DCA LOC / DELETE "1" RESPONSE IN "RD" SUBR.
    TAD SAFE
    AND P7 / MASK LAST 3 DIGITS
    TAD ACC
    ISZ INDX / DONE 3X?
    SKP / NO
    JMP ROTX
    CLL RIL
    CLL RAL / ROT. 3 LEFT
    JMP ROFS / GET NEXT CHAR.
    ROTX, DCA ACC / FULL NUMB.
    JMP I ROT

TYPE, 0
    TLS
    TSF
    JMP -1 / WAIT TILL DONE
    CLA
    JMP I TYPE
//SUBROUTINE TO READ AND TEST TTY CHAR.
RD,0
  KSF
  JMP -.1  /WAIT FOR CHAR
  KR8
  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 =1
LOC,JMP XI  /YES--(LOC SET BY ENTERANCE TO ROT
  TAD M66  /NO
  SNA CLA  /CHAR = "RUB OUT"
  JMP STRI  /YES
  WRONG,CLA
  JMP RD+1  /TRY AGAIN
XI, IAC
  JMP I RD  /EXIT WITH ACC(1)
$$$$$$