

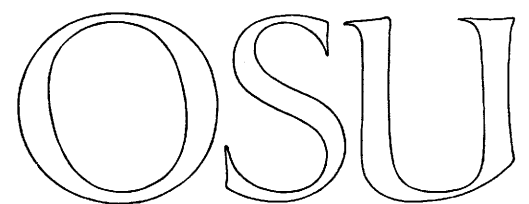
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OS3 Teletypewriter Editor Manual (Revised)

by

Fred Dayton
and
Walter Massie

May, 1968

The logo for Oregon State University, consisting of the letters 'OSU' in a large, outlined, serif font.

COMPUTER CENTER

Oregon State University
Corvallis, Oregon 97331

A REVISED MANUAL FOR

IBX\KSP	MOVE/R	REP	TABSTATUS
A	U E	Q	A
C	T P	U	P
K	P L	I	E
JSAR	U A	P	-
P	T C	-	F
A	- E	O	I
C	F /	U	L
IEPRINT	APPEND	TTP	E

THE
OS-3 TELETYPE EDITOR

BY
FRED DAYTON
&
WALTER MASSIE

MAY 1968

CC - 68 - 17

EDIT

THE EDIT PROGRAM WITHIN THE OS-3 OPERATING SYSTEM ALLOWS THE USER TO GENERATE, ALTER, OR LIST FILES. TO ENTER THE EDIT PROGRAM, THE USER MUST HAVE HIS TELETYPE IN THE CONTROL MODE. TO VERIFY THAT ONE IS IN THE CONTROL MODE, ONE SHOULD TYPE (CS,A). AFTER THE # HAS BEEN PRINTED, THE USER SHOULD TYPE EDIT(CR). THE CARRIAGE WILL RETURN, LINESPACE, AND PRINT J IN THE LEFT MARGIN INDICATING THAT EDIT IS IN THE COMMAND MODE.

ALL EDITING OPERATIONS ARE PERFORMED IN A CORE MEMORY WORK AREA. INFORMATION TO BE EDITED MUST BE TRANSFERRED INTO THIS AREA TO BE MODIFIED. MODIFIED INFORMATION MUST BE COPIED OUT TO SOME OTHER FILE STORAGE BEFORE IT CAN BE USED BY ANY OTHER PART OF THE OS-3 SYSTEM. ONLY INFORMATION WHICH CAN BE REPRESENTED ON A TELETYPE MAY BE PROCESSED USING EDIT. BINARY MACHINE LANGUAGE PROGRAMS ARE ABOUT THE ONLY FORM OF INFORMATION WHICH CANNOT BE HANDLED BY EDIT.

THE EDIT PORTION OF OS-3 MAY BE USED ONLY FROM REMOTE TELETYPES.

ADDITIONAL NOTATION FOR THIS PART OF THIS MANUAL

(LINE)

THE EDIT PROGRAM USES LINE NUMBERS TO REFERENCE TEXT BEING EDITED. THESE LINE NUMBERS MAY BE ASSIGNED BY THE USER, OR INDIRECTLY, BY THE EDIT PROGRAM. WHERE SEVERAL LINE PARAMETERS ARE NEEDED IN COMMANDS, A MODIFYING DIGIT WILL BE ADDED (LINE 3). A SINGLE LINE IS THE SMALLEST BLOCK OF INFORMATION WHICH CAN BE HANDLED BY THE EDITOR. LINE NUMBERS ASSOCIATED WITH THE TEXT BEING EDITED ARE PRINTED AT THE LEFT MARGIN OF THE TELETYPE PAGE AND ARE SEPARATED FROM THE REGULAR TEXT BY A COLON(:). IF THERE IS NO LINE NUMBER ASSOCIATED WITH A LINE, THERE WILL BE SPACES IN PLACE OF THE LINE NUMBER; THE COLON WILL STILL BE PRINTED.

LINE NUMBER ZERO IS PERMANENTLY ASSIGNED TO A FICTITIOUS LINE WHICH IS LOCATED IMMEDIATELY BEFORE THE FIRST LINE OF TEXT IN THE USER'S WORK AREA. THIS LINE WILL ALWAYS BE PRESENT, BUT WILL NEVER BE COPIED BY ANY FORM OF OUTPUT COMMAND.

LIMITED LINE NUMBER ARITHMETIC OF THE FORM LINE+C (WHERE C IS A CONSTANT) IS ALLOWED WHEREVER LINES ARE REFERENCED WITHIN EDIT. ADDITION IS THE ONLY ARITHMETIC OPERATION ALLOWED. THIS FEATURE IS HANDY WHEN WORKING WITH UN-NUMBERED LINES INTERSPERSED AMONG NUMBERED LINES. LINE 29+6 WOULD REFER TO THE SIXTH LINE PAST LINE NUMBER 29.

THE FOLLOWING INFORMATION IS BASIC TO ALL EDIT OPERATIONS

THE FOLLOWING OPERATIONS MAY BE USED IN EITHER THE COMMAND OR THE TEXT MODES. COMMAND MODE IS INDICATED BY THE `]` PRINTED AT THE LEFT MARGIN.

THE AT SIGN (`@`) (UPPER CASE LETTER P) IS USED TO INDICATE THAT THE USER WISHES TO RETYPE A LINE. WHEN THE (`@`) IS PRINTED, THE CARRIAGE WILL NOT RETURN, BUT ALL INFORMATION UP TO AND INCLUDING (`@`) IS IGNORED. THE USER MAY CONTINUE TYPING ON THE SAME LINE, REENTERING THE DESIRED INFORMATION; THE LINE MUST EVENTUALLY END WITH `[CR]`.

THE BACKSLASH (`\`) (UPPER CASE LETTER L) MAY BE USED TO DELETE INDIVIDUAL CHARACTERS WITHIN A LINE OF TYPING. FOR EXAMPLE: `ABCC\DEFF\FG[CR]` WOULD BE TAKEN AS `ABCDEF[CR]`.

THE CARRIAGE RETURN (`[CR]`) IS USED AT THE END OF EVERY LINE TO INDICATE TO THE COMPUTER THAT THE USER WISHES IT TO PROCESS THE LINE OF INFORMATION JUST TYPED. THE CARRIAGE WILL RETURN, LINESPACE, AND TYPE THE `]` IF IN COMMAND MODE.

THE [TAB] KEY (EQUIVALENT TO [CS,I]) IS USED TO CAUSE A TAB IN A WAY EXACTLY SIMILAR TO THAT OF AN ORDINARY TYPEWRITER. [TAB] WILL CAUSE THE COMPUTER TO SPACE TO THE NEXT SET STOP, WHETHER THE TELETYPE MOVES OR NOT. TAB STOPS ARE PRESET TO 10, 20, 40, AND 72; THESE MAY BE CHANGED BY THE USER WITH A TAB COMMAND.

THE BELL WILL BE RUNG WHENEVER AN ERROR OCCURS SUCH THAT A COMMAND CANNOT BE PROPERLY EXECUTED. THE EDITOR WILL THEN RETURN TO THE COMMAND MODE INDICATED BY A).

APPEND,(LUN)(CR)

THE APPEND COMMAND WILL ADD TEXT TO THE END OF THE EDIT WORK AREA FROM THE LOGICAL UNIT SPECIFIED. INFORMATION ON THIS (LUN) MAY BE IN ANY FORM GENERATED BY THE EDIT PROGRAM. IF NO (LUN) IS SPECIFIED, THEN THE TEXT IS TAKEN FROM THE TELETYPE WITH LINE SEQUENCE NUMBERS PROVIDED. THESE LINE NUMBERS CONTINUE FROM THE LAST SEQUENCE NUMBER FOUND IN THE TEXT.

A NAME MAY BE SUBSTITUTED FOR THE LOGICAL UNIT NUMBER IN THIS COMMAND; THIS NAME MUST REFER TO A CURRENTLY SAVED FILE. THIS FILE WILL BE REWOUND BEFORE USE.

EXAMPLES OF APPEND COMMANDS ARE:

APPEND(CR)

APPEND,5(CR)

APPEND,ZAP(CR)

BACKSPACE,(LUN),(LUN),...,(LUN)[CR]

THIS COMMAND CAUSES EACH OF THE LOGICAL UNITS LISTED TO BACK UP ONE LINE. IF THE LOGICAL UNIT HAPPENED TO BE REWOUND, THEN THIS COMMAND WILL HAVE NO EFFECT. A LOGICAL UNIT MAY BE LISTED MORE THAN ONCE; THE (LUN) WILL BE BACKSPACED ONCE FOR EACH TIME IT IS LISTED.

EXAMPLES OF BACKSPACE COMMANDS ARE:

BACKSPACE,23,89,90,71[CR]

BACKSPACE,23[CR]

BACKSPACE,34,34,34[CR]

BKSP,(LUN),(LUN),...,(LUN)[CR]

THIS IS AN ALTERNATE FORM OF THE BACKSPACE COMMAND.

EXAMPLES OF BKSP COMMANDS ARE:

BKSP,65,31[CR]

BKSP,23[CR]

BKSP,34,34,34,34[CR]

BKSPACE,(LUN),(LUN),...,(LUN)[CR]

THIS IS AN ALTERNATE FORM OF THE BACKSPACE COMMAND.

EXAMPLES OF BKSPACE COMMANDS ARE:

BKSPACE,31,2[CR]

BKSPACE,26[CR]

BKSPACE,34,34,34[CR]

CIN,(LUN)(CR)

THIS COMMAND IS USED TO ENTER INFORMATION IN COSY FORMAT INTO THE EDIT WORK AREA. THE WORK AREA IS CLEARED BEFORE EXECUTION OF THIS COMMAND. LEADING BINARY CODED DECIMAL, BCD, RECORDS ARE IGNORED; INPUT BEGINS WITH THE FIRST COSY BINARY RECORD. LINE SEQUENCE NUMBERS STARTING WITH 1 AND INCREASING IN INCREMENTS OF 1 ARE STORED WITH EACH LINE. CIN WILL REWIND LOGICAL UNITS NUMBERED BETWEEN 50 AND 59, IF POSSIBLE, BEFORE EXECUTION. IF NO (LUN) IS SPECIFIED, THEN LOGICAL UNIT 54 IS ASSUMED. WHEN THE LAST COSY RECORD HAS BEEN PROCESSED, CIN WILL SEARCH FORWARD PAST FILE MARK IF THE HARDWARE TYPE ALLOWS.

A NAME CONSISTING OF UP TO 8 CHARACTERS MAY BE SUBSTITUTED FOR THE LOGICAL UNIT NUMBER IN THIS COMMAND; THIS NAME MUST REFER TO A CURRENTLY SAVED FILE.

EXAMPLES OF CIN COMMANDS ARE:

CIN,45(CR)

CIN(CR)

CIN,ZAP(CR)

CLEAR,(LUN),(LUN),...(LUN)(CR)

THE CLEAR COMMAND MODE INSTRUCTION WILL RESET CERTAIN INDICATORS ASSOCIATED WITH EACH OF THE LOGICAL UNITS LISTED. THE INDICATORS WHICH ARE RESET INCLUDE:

FILE MARK JUST READ

REVERSE READ SET

BINARY RECORD PROCESSED

THE FOLLOWING INDICATORS ARE NOT CHANGED:

FILE PROTECT

LOAD POINT

END OF DATA

EXAMPLES OF CLEAR INSTRUCTIONS ARE:

CLEAR,33,99,71(CR)

CLEAR,26(CR)

COSYIN,(LUN)[CR]

THIS IS AN ALTERNATE FORM OF THE CIN COMMAND.

EXAMPLES OF COSYIN COMMANDS ARE:

COSYIN,45[CR]

COSYIN[CR]

COSYIN,ZAP[CR]

COSYOUT,(LUN),DECKID,ED(CR)

THIS ROUTINE WILL WRITE OUT A COSY COMPRESSED DECK OF THE TEXT IN THE WORK AREA. IF (LUN) IS NOT SPECIFIED (LUN)54 IS ASSUMED. COSYOUT WILL WRITE A FILE MARK AND IF THE (LUN) IS BACKSPACEABLE EDIT WILL WRITE A SECOND FILE MARK AND BACKSPACE OVER IT. IF BOTH DECKID AND ED ARE OMITTED THEN NO COSY/ CARD IS GENERATED. IF EITHER PARAMETER IS PRESENT THEN A BCD CARD DECKID COSY/ ED WILL BE GENERATED. DECKID MAY BE ANY STRING OF UP TO 8 BCD CHARACTERS TERMINATED BY A COMMA. ED MAY BE ANY NUMBER BETWEEN 1 AND 99. IF ED IS OMITTED THEN 01 IS USED. IF DECKID IS OMITTED THEN BLANKS ARE USED.

A NAME CONSISTING OF UP TO 8 CHARACTERS MAY BE SUBSTITUTED FOR THE LOGICAL UNIT NUMBER IN THIS COMMAND. IF A PREVIOUSLY DEFINED NAME IS USED, THE FILE ASSOCIATED WITH IT WILL BE REWOUND BEFORE USE, IF THE NAME HAS NOT BEEN PREVIOUSLY DEFINED, THEN A NEW FILE IS GENERATED AND SAVED.

EXAMPLES OF COSYOUT COMMANDS ARE:

COSYOUT(CR)

COSYOUT,ZAP(CR)

COSYOUT,50,ZILCH,22(CR)

COUT,(LUN),DECKID,ED(CR)

THIS IS AN ALTERNATE FORM OF THE COSYOUT COMMAND.

EXAMPLES OF COUT COMMANDS ARE:

COUT(CR)

COUT,ZAP(CR)

COUT,50,ZILCH,22(CR)

DELETE,(NAME)(CR)

THE DELETE COMMAND IS USED TO DESTROY A SAVED FILE AT THE END OF THE CURRENT SESSION WITH THE COMPUTER. (NAME) DOES NOT HAVE TO APPEAR IN A PREVIOUS EQUIP COMMAND; THE SAVED FILE MAY NOT BE FILE PROTECTED. IF (NAME) WAS NOT EQUIPPED, THEN THE CONTENTS OF THE FILE WILL BE DESTROYED AS SOON AS THIS COMMAND IS EXECUTED.

EXAMPLES OF DELETE COMMANDS ARE:

DELETE,PROGRAM(CR)

DELETE,DATA(CR)

EPRINT(CR)

THIS COMMAND WILL CAUSE THE LAST ERROR MESSAGE WHICH THE USER ENCOUNTERED TO BE PRINTED ON THE TELETYPE. THIS IS USEFUL WHEN THE USER CHOOSES NOT TO HAVE ERROR MESSAGES NORMALLY PRINTED.

AN EXAMPLE OF AN EPRINT COMMAND IS:

EPRINT(CR)

EQUIP,(LUN)=(ELEMENT)(CR)

THE EQUIP STATEMENT ALLOWS THE USER TO ASSOCIATE LOGICAL UNIT NUMBERS WITH PARTICULAR PIECES OF HARDWARE. THESE DEVICES ARE SUBSEQUENTLY REFERRED TO BY (LUN). THE (LUN), LOGICAL UNIT NUMBER, MUST BE AN INTEGER CONSTANT BETWEEN 0 AND 99. NORMALLY, THE FOLLOWING LOGICAL UNITS ARE ASSOCIATED WITH THE FOLLOWING DEVICES:

(LUN)	DEVICE
60	TELETYPE INPUT
61	TELETYPE OUTPUT

THE (ELEMENT) TO THE RIGHT OF THE EQUAL SIGN MUST BE A PREVIOUSLY DEFINED LOGICAL UNIT NUMBER (60,61, OR A (LUN) WHICH APPEARS TO THE LEFT OF THE EQUAL SIGN IN AN EARLIER EQUIP STATEMENT) OR ONE OF THE FOLLOWING:

FILE THE WORD FILE IS USED TO SET A (LUN) AS A FILE STORAGE AREA. THIS STORAGE AREA MAY BE SAVED BY USING A SAVE CONTROL MODE INSTRUCTION. IF THE FILE IS NOT SAVED, IT WILL BE DESTROYED WHEN THE USER LOGS OFF, OR THE (LUN) IS UNEQUIPPED.

(NAME) THE (NAME) IS USED TO EQUIP A (LUN) EQUIVALENT TO THE FILE (NAME). (NAME) MAY BE THE NAME OF A PUBLIC FILE, OR THE NAME OF ONE OF THE USER'S PRIVATE FILES WHICH HE HAS PREVIOUSLY SAVED UNDER THE CURRENTLY USED ACCOUNT NUMBER AND USER NUMBER.

- NULL** THE WORD NULL IS USED TO EQUIP A DEVICE WHICH WILL DESTROY ANY INFORMATION SENT TO IT. IT MAY BE THOUGHT OF AS A LINE PRINTER FEEDING DIRECTLY INTO AN INCINERATOR.
- PLOT** THE WORD PLOT IS USED TO DEFINE A LOGICAL UNIT NUMBER EQUIVALENT TO AN X-Y PLOTTER. INFORMATION SENT TO THIS UNIT IN THE PROPER FORM WILL BE PLOTTED ON PAPER IN THE COMPUTER ROOM.
- PR** THE LETTERS PR OR THE LETTERS LP ARE USED TO
LP EQUIP A LINE PRINTER AS AN OUTPUT DEVICE. ANY INFORMATION SENT TO THIS (LUN) WILL BE PRINTED ON THE HIGH SPEED LINE PRINTER IN THE COMPUTER ROOM.
- PUN** THE LETTERS PUN ARE USED TO EQUIP A CARD PUNCH AS AN OUTPUT DEVICE. INFORMATION SENT TO THIS (LUN) WILL BE PUNCHED ON CARDS IN THE COMPUTER ROOM.

ONLY A SINGLE (LUN) MAY BE EQUIPPED IN EACH EQUIP STATEMENT. AFTER EXECUTION OF AN EQUIP STATEMENT, THE TELETYPE WILL RETURN TO COMMAND MODE FOR ANOTHER INSTRUCTION. A PARTICULAR (LUN) MAY NOT BE USED ON THE LEFT OF THE EQUAL SIGN IN AN EQUIP STATEMENT MORE THAN ONCE. IF ONE WISHES TO REDEFINE A (LUN) HE MUST UNEQUIP IT FIRST.

EXAMPLES OF EQUIP COMMANDS ARE:

EQUIP,04=FILE[CR]

EQUIP,02=61[CR]

EQUIP,63=FTNLIB[CR]

EQUIP,45=04[CR]

EQUIP,31=PR[CR]

EQUIP,99=NULL[CR]

EQUIP,71=PLOT[CR]

ERASE,(LINE 1),(LINE 2),(CR)

THE ERASE COMMAND IS USED TO DELETE INFORMATION FROM THE EDIT WORK AREA. (LINE 1) SPECIFIES THE NUMBER OF THE FIRST LINE TO BE ERASED. (LINE 2) IDENTIFIES THE NUMBER OF THE LAST LINE TO BE ERASED. ALL LINES BETWEEN (LINE 1) AND (LINE 2) ARE ALSO DESTROYED. (LINE 2) MUST BE ASSOCIATED WITH A LINE WHICH APPEARS AFTER (LINE 1) IN THE WORK AREA.

IF (LINE 2) IS OMITTED THEN ONLY (LINE 1) IS ERASED. IF EITHER (LINE 1) OR (LINE 2) IS INVALID, AN ERROR MESSAGE IS TYPED AND THE WORK AREA IS NOT CHANGED.

EXAMPLES OF ERASE COMMANDS ARE:

ERASE,20,30(CR)

ERASE,39,71+3(CR)

ERASE,23(CR)

ERPOFF[CR]

THIS COMMAND WILL INSTRUCT THE EDITOR NOT TO PRINT ERROR MESSAGES. WHEN AN ERROR OCCURS, THE BELL WILL RING, AND THE TELETYPE WILL RETURN TO THE COMMAND MODE. THE MESSAGE ASSOCIATED WITH THE ERROR WHICH HAS JUST OCCURRED MAY BE PRINTED BY USING THE EPRINT COMMAND.

AN EXAMPLE OF AN ERPOFF COMMAND IS:

ERPOFF[CR]

ERPON[CR]

THIS COMMAND WILL CAUSE ERROR MESSAGES TO BE PRINTED AS THEY
OCCUR.

AN EXAMPLE OF AN ERPON COMMAND IS:

ERPON[CR]

FETCH,(LUN)(CR)

THIS COMMAND WILL TRANSFER INFORMATION INTO THE EDIT WORK AREA. THIS TEXT MUST HAVE BEEN SAVED BY A FILE COMMAND. IF NO (LUN) IS SPECIFIED, THEN LOGICAL UNIT 55 IS ASSUMED.

THE SEQUENCE NUMBERS FOR EACH LINE, THE TAB STOPS AND THE SEQUENCE AND INCREMENT PARAMETERS (S AND I) ARE RESTORED.

A NAME CONSISTING OF UP TO 8 CHARACTERS MAY BE SUBSTITUTED FOR THE LOGICAL UNIT NUMBER IN THIS COMMAND. THIS NAME MUST REFER TO A CURRENTLY SAVED FILE; THIS FILE WILL BE REWOUND BEFORE USE.

EXAMPLES OF FETCH COMMANDS ARE:

FETCH,37(CR)

FETCH(CR)

FETCH,ZAP(CR)

FILE,(LUN)(CR)

THIS COMMAND WILL SAVE THE CONTENTS OF THE WORK AREA ON A FILE. THE (LUN) MUST ALWAYS BE EQUIPED AS A FILE. THE TAB SETTING, SEQUENCE PARAMETERS (S AND I), ALONG WITH THE SEQUENCE NUMBERS FOR EACH LINE ARE SAVED. IF (LUN) IS OMITTED, THEN LOGICAL UNIT 55 IS ASSUMED. SINCE THIS COMMAND COMPRESSES INFORMATION TO SAVE FILE SPACE, THIS COMMAND SHOULD BE USED TO SAVE INFORMATION FROM THE EDIT WORK AREA. THE FORTRAN COMPILER WILL ACCEPT INFORMATION STORED WITH THIS COMMAND, BUT A RUNNING PROGRAM CANNOT PROPERLY DECODE DATA IN THIS FORM.

A NAME CONSISTING OF UP TO 8 CHARACTERS MAY BE SUBSTITUTED FOR THE LOGICAL UNIT NUMBER IN THIS COMMAND. IF A PREVIOUSLY DEFINED NAME IS USED, THE FILE ASSOCIATED WITH IT WILL BE REWOUND BEFORE USE, IF THE NAME HAS NOT BEEN PREVIOUSLY DEFINED, THEN A NEW FILE IS GENERATED AND SAVED.

EXAMPLES OF FILE COMMANDS ARE:

FILE,40(CR)

FILE(CR)

FILE,WALT(CR)

FIN,(LUN)(CR)

THE FIN COMMAND STANDING FOR FILE INPUT IS USED TO ENTER INFORMATION TO THE EDIT WORK AREA FROM THE LOGICAL UNIT SPECIFIED. INPUT FROM THIS UNIT CONTINUES UNTIL A FILE MARK OR END OF DATA IS ENCOUNTERED. NO SEQUENCE NUMBERS ARE PROVIDED, AND THE WORK AREA IS CLEARED BEFORE THE COMMAND IS EXECUTED. IF NO (LUN) IS SPECIFIED IN THE FIN COMMAND, THEN (LUN) 54 IS ASSUMED. THE FIN COMMAND WILL REWIND LOGICAL UNITS NUMBERED BETWEEN 50 AND 59 BEFORE EXECUTION.

A SAVED FILE NAME MAY BE SUBSTITUTED FOR (LUN). IF THIS IS DONE, THE FILE WILL BE REWOUND BEFORE THE INFORMATION IS TRANSFERRED TO THE WORK AREA.

A FIN COMMAND WILL TRANSFER ANY VALID TYPE OF INFORMATION TO THE EDIT WORK AREA FROM A FILE.

EXAMPLES OF FIN COMMANDS ARE:

FIN,34(CR)

FIN(CR)

FIN,DATA(CR)

FINPUT,(LUN)(CR)

THIS IS AN ALTERNATE FORM OF THE FIN COMMAND.

EXAMPLES OF FINPUT COMMANDS ARE:

FINPUT,34(CR)

FINPUT(CR)

FINPUT,DATA(CR)

FP,(LUN)[CR]

THE LETTERS FP ARE USED TO INDICATE FILE PROTECT. (LUN) MUST BE EITHER A SAVED FILE NAME CONSISTING OF UP TO EIGHT CHARACTERS, OR A PREVIOUSLY EQUIPPED LOGICAL UNIT NUMBER WHICH MUST REFER TO A FILE. FILE PROTECTION PREVENTS THE USER FROM TAKING ANY ACTION WHICH WOULD DESTROY OR MODIFY THE CONTENTS OF THE FILE (LUN). INFORMATION MAY STILL BE READ FROM THE FILE. A PROTECTED FILE WHICH THE USER DOES NOT SAVE, WILL BE DESTROYED AT THE END OF HIS JOB. FILE PROTECTION MAY BE REMOVED BY USING THE RFP,(LUN) CONTROL MODE INSTRUCTION.

EXAMPLES OF FILE PROTECT COMMANDS ARE:

FP,33[CR]

FP,45[CR]

FP,PROGRAM[CR]

FWDSpace,(LUN),(LUN),...,(LUN)[CR]

THIS COMMAND MODE INSTRUCTION CAUSES EACH LOGICAL UNIT SPECIFIED TO BE SPACED FORWARD ONE LINE. IF A (LUN) IS ALREADY AT THE END OF DATA, THEN THIS COMMAND WILL HAVE NO EFFECT.

ANY NUMBER OF LOGICAL UNITS MAY BE LISTED; ALL MUST HAVE BEEN PREVIOUSLY DEFINED. A LOGICAL UNIT MAY BE LISTED MORE THAN ONCE; THE (LUN) WILL FORWARD SPACE ONCE FOR EACH TIME IT IS LISTED.

EXAMPLES OF FWDSpace COMMANDS ARE:

FWDSpace,34,98,20,91[CR]

FWDSpace,23,23,23[CR]

FWSP,(LUN),(LUN),...,(LUN)[CR]

THIS IS AN ALTERNATE FORM OF THE FWDSpace COMMAND.

EXAMPLES OF FWSP COMMANDS ARE:

FWSP,2,67,23[CR]

FWSP,41[CR]

FWSP,67,67,67,67,[CR]

INPUT,S,I[CR]

THE INPUT COMMAND PREPARES A WORK AREA IN THE COMPUTER MEMORY FOR THE TEMPORARY STORAGE OF INFORMATION. A SEQUENCE NUMBER FOLLOWED BY A COLON (:) IS PROVIDED FOR EACH LINE. THE PARAMETERS S AND I IN THE INPUT COMMAND SPECIFY THE FIRST SEQUENCE NUMBER AND THE SEQUENCE NUMBER INCREMENT, RESPECTIVELY. IF BOTH OR EITHER ONE IS OMITTED, THE VALUE LAST SET BY AN INPUT OR RESEQ COMMAND IS ASSIGNED TO THE MISSING PARAMETER (THE PARAMETERS ARE SET TO 1 WHEN EDIT IS TYPED.)

AFTER EDIT TYPES A LINE NUMBER AND COLON, THE USER SHOULD ENTER THE DESIRED TEXT. EACH LINE OF TEXT MUST END WITH [CR]. TO TERMINATE AN INPUT OPERATION AND RETURN FROM TEXT TO COMMAND MODE, THE USER SHOULD DEPRESS [ESC], OR [CS,W], OR [ALT MODE].

THE INPUT COMMAND DESTROYS ANY INFORMATION WHICH MAY HAVE ALREADY BEEN IN THE USER'S EDIT WORK AREA.

EXAMPLES OF INPUT COMMANDS ARE:

INPUT,100,100[CR]

INPUT[CR]

INPUT,,5[CR]

INPUT,100[CR]

INSERT,(LINE)[CR]

THE INSERT COMMAND ALLOWS THE USER TO INSERT INFORMATION BETWEEN EXISTING LINES IN THE EDIT WORK AREA. AFTER THIS COMMAND IS GIVEN THE EDIT PROGRAM ENTERS THE TEXT MODE, ACCEPTING INFORMATION WHICH IT WILL INSERT FOLLOWING (LINE) IN THE WORK AREA. FIVE SPACES AND A COLON (:) ARE PRINTED FOR EACH LINE INSERTED.

ANY NUMBER OF LINES MAY BE ENTERED; EACH MUST BE FOLLOWED BY [CR]. NO LINE SEQUENCE NUMBERS ARE PROVIDED FOR THESE INSERTED LINES, HOWEVER. TO TERMINATE AN INSERT OPERATION AND RETURN FROM TEXT TO COMMAND MODE, THE USER SHOULD DEPRESS [ESC], [CS,W] OR [ALT MODE].

IF (LINE) IS OMITTED, THE TEXT IS INSERTED BEFORE THE FIRST LINE OF THE WORK AREA. IF (LINE) IS INVALID, THE COMMAND IS REJECTED.

EXAMPLES OF INSERT COMMANDS ARE:

INSERT,1B9[CR]

INSERT[CR]

INSERT,22+3[CR]

INSERT,0+2[CR]

LASTLINE(CR)

**THIS COMMAND CAUSES THE LINE NUMBER OF THE LAST SEQUENCED LINE
IN THE EDIT WORK AREA TO BE LISTED ON THE USER'S TELETYPE.**

AN EXAMPLE OF THE LASTLINE COMMAND IS:

LASTLINE(CR)

LIBRARYCALL,PARAMETERS

THE EDITOR ALLOWS CALLS TO SYSTEM PROCESSORS (SUCH AS FORTRAN, ALGOL,...ETC.). FOR INFORMATION CONCERNING THESE ROUTINES AND THEIR PARAMETER CONSULT THE OS-3 USER'S MANUAL (BY MR. W. MASSIE) OR THE OS-3 REFERENCE MANUAL (BY MR. G. BACHELOR).

THE FOLLOWING IS A LIST OF VALID LIBRARY CALLS:

ALGOL

COMPASS

COSY

FORTRAN

LOAD

OSCAR

RADAR

EXAMPLES OF LIBRARY CALLS ARE:

ALGOL,L=5,X,I=7[CR]

COMPASS,L=2,R,P,S,I=50[CR]

COSY,LOG=7[CR]

FORTRAN,L=7,I=ZING[CR]

LOAD,50[CR]

LOAD,I=56[CR]

OSCAR[CR]

RADAR[CR]

LIST,(LINE 1),(LINE 2)(CR)

THE LIST COMMAND CAUSES THE COMPUTER TO LIST THE CONTENTS OF THE WORK AREA ON THE USER'S TELETYPE. (LINE 1) AND (LINE 2) ARE, RESPECTIVELY, THE FIRST AND LAST LINE NUMBER WHICH THE USER WISHES TO HAVE TYPED. IF BOTH PARAMETERS ARE OMITTED, THEN ALL THE WORK AREA IS LISTED. IF (LINE 1) IS OMITTED THEN LINES FROM THE BEGINNING OF THE WORK AREA THROUGH (LINE 2) ARE LISTED. IF (LINE 2) IS OMITTED, THEN (LINE 1) IS LISTED. IF (LINE 2) IS ZERO (LINE 1) AND ALL LINES AFTER IT ARE LISTED.

IF THE USER SPECIFIES A LINE SEQUENCE NUMBER WHICH DOES NOT EXIST IN THE WORK AREA, AN ERROR MESSAGE IS PROVIDED AND THE COMPUTER RETURNS TO THE COMMAND MODE.

THE [BREAK] KEY MAY BE USED TO TERMINATE AN UNDESIRE LISTING OPERATION; THE USE OF [BREAK] WILL RETURN THE COMPUTER TO CONTROL MODE. THE USER MUST THEN TYPE MI(CR) TO GET BACK TO THE EDITOR PROGRAM WITHOUT DESTROYING THE INFORMATION IN HIS EDIT WORK AREA.

EXAMPLES OF THE LIST COMMAND ARE:

LIST,1,8(CR)

LIST,8(CR)

LIST,,8(CR)

LIST(CR)

LIST,10,0(CR)

LIST,13+5(CR)

LIST,12+2,13+5(CR)

LIST,0+2,0+5(CR)

MI[CR]

THE LETTERS MI STAND FOR MANUAL INTERRUPT. THIS COMMAND MAY BE GIVEN WHENEVER THE USER GETS INTO THE OS-3 CONTROL MODE AND WISHES TO RETURN TO EDIT COMMAND MODE WITHOUT DISRUPTING THE CONTENTS OF HIS WORK AREA. ANY PARTIALLY EXECUTED INSTRUCTION WHICH WAS IN PROCESS WHEN THE USER WENT TO CONTROL MODE WILL BE TERMINATED. MI SHOULD BE TYPED ONLY IF THE USER HAS ENTERED CONTROL MODE FROM THE EDITOR. FOR EXAMPLE, THIS COMMAND WOULD BE USED TO RETURN TO EDIT AFTER DEPRESSING [BREAK] TO TERMINATE A LISTING.

AN EXAMPLE OF A MI COMMAND IS:

MI[CR]

MOVE,(LINE 1),(LINE 2),(LINE 3)[CR]

THE MOVE COMMAND WILL ERASE (LINE 1) THROUGH (LINE 2) FROM THEIR POSITION AND INSERT THEM IN THE SAME ORDER AFTER (LINE 3). ALL THREE PARAMETERS MUST BE SPECIFIED FOR THE COMMAND TO BE EXECUTED PROPERLY. THE LINE NUMBERS ASSOCIATED WITH (LINE 1) THROUGH (LINE 2) ARE CARRIED WITH THEM. IF A PARAMETER ERROR IS DETECTED, THE MOVE DOES NOT TAKE PLACE.

EXAMPLES OF MOVE COMMANDS ARE:

MOVE,10,20,45[CR]

MOVE,45,45,3[CR]

MOVE,67,72,48[CR]

MOVE,10+2,17+1,160+3[CR]

OUT,(LUN),N,R=(NUMBER 1),S=(NUMBER 2)(CR)

THE OUT COMMAND IS USED TO COPY INFORMATION FROM THE WORK AREA TO THE LOGICAL UNIT SPECIFIED. THIS TEXT IS COPIED IN BINARY CODED DECIMAL (BCD) OR "HOLLERITH" FORM. IF NO (LUN) IS SPECIFIED, THEN LOGICAL UNIT 54 IS ASSUMED.

(NUMBER 1) SPECIFIES THE LINE LENGTH TO BE WRITTEN OUT. IF NO VALUE IS SPECIFIED THEN VARIABLE LENGTH RECORDS ARE WRITTEN. N IS USED TO SPECIFY THAT SEQUENCE NUMBERS ARE TO BE STORED IN THE LAST 5 SPACES OF THE LINE. N WILL PRESET THE LINE LENGTH TO 80 IF NO R WAS SPECIFIED. (NUMBER 2) IS THE NUMBER OF CHARACTERS TO SHIFT THE LINE TO THE RIGHT. IT IS USEFUL TO LINE UP (CENTER) PRINTED MATERIAL ON A LINE PRINTER. IF S IS OMITTED THEN S IS SET TO 1 FOR LINE PRINTER OR TELETYPE OUTPUT; OTHERWISE IT IS ZERO. FOR MOST CASES N, R, AND S MAY BE OMITTED. EDIT WILL WRITE A FILE MARK AT THE END OF THE OUTPUT AND BACKSPACE OVER IT, IF POSSIBLE. LATER OUTPUT TO THIS UNIT WOULD THEN DESTROY THE FILE MARK. THE OUT COMMAND WILL REWIND ALL REWINDABLE LOGICAL UNITS NUMBERED BETWEEN 50 AND 59.

A NAME MAY BE USED IN PLACE OF THE LOGICAL UNIT NUMBER WITH THIS COMMAND. IF THIS NAME REFERS TO A CURRENTLY SAVED FILE, THEN THIS FILE WILL BE REWOUND AND USED. IF THE NAME HAS NOT BEEN PREVIOUSLY DEFINED, THEN A NEW FILE WILL BE GENERATED AND SAVED.

EXAMPLES OF OUT COMMANDS ARE:

OUT,23[CR]

OUT,41,N[CR]

OUT,50,N,R=24[CR]

OUT,TEST[CR]

OUT,,S=10[CR]

OUT,3,N,R=120,S=4[CR]

OUTPUT,(LUN),N,R=(NUMBER 1),S=(NUMBER 2)(CR)

THIS IS AN ALTERNATE FORM OF THE OUT COMMAND.

EXAMPLES OF OUTPUT COMMANDS ARE:

OUTPUT,23(CR)

OUTPUT,41,N(CR)

OUTPUT,50,N,R=24(CR)

OUTPUT,TEST(CR)

OUTPUT,S=10(CR)

OUTPUT,3,N,R=120,S=4(CR)

RELEASE,(LUN),(LUN),...,(LUN)[CR]

THE RELEASE COMMAND DESTROYS THE INFORMATION STORED ON EACH OF THE LOGICAL UNITS LISTED AND GIVES UP THE FILE SPACE THAT WAS USED. THE LOGICAL UNITS ARE STILL DEFINED, HOWEVER.

NAMES MAY BE USED IN PLACE OF THE LOGICAL UNIT NUMBERS IN THIS COMMAND. THESE NAMES MUST REFER TO CURRENTLY SAVED FILES, HOWEVER.

EXAMPLES OF RELEASE COMMANDS ARE:

RELEASE,33,67,21[CR]

RELEASE,32[CR]

RELEASE,DATA,PROGRAM[CR]

REP,(LINE 1),(LINE 2)[CR]

THE REP COMMAND FUNCTIONS AS A COMBINATION OF THE PREVIOUS ERASE AND INSERT COMMANDS. THE REP COMMAND WILL ERASE (LINE 1) THROUGH (LINE 2) IN THE USER'S EDIT WORK AREA AND THEN SHIFT TO TEXT MODE FOR THE USER TO ENTER NEW LINES OF INFORMATION JUST AS WITH AN INSERT COMMAND. ANY NUMBER OF NEW LINES MAY BE ENTERED; THEY WILL NOT HAVE SEQUENCE NUMBERS ASSOCIATED WITH THEM. IF (LINE 2) IS OMITTED, THEN ONLY (LINE 1) WILL BE ERASED BEFORE THE COMPUTER SWITCHES TO TEXT MODE. EACH LINE ENTERED IN TEXT MODE MUST END WITH [CR]. TO RETURN TO COMMAND MODE, THE USER SHOULD DEPRESS [ESC], [CS,W], OR [ALT MODE].

EXAMPLES OF REP COMMANDS ARE:

REP,5,7[CR]

REP,89[CR]

REP,15+2,17+1[CR]

REPLACE,(LINE 1),(LINE 2)[CR]

THIS IS AN ALTERNATE FORM OF THE REP COMMAND.

EXAMPLES OF REPLACE COMMANDS ARE:

REPLACE,5,7[CR]

REPLACE,89[CR]

REPLACE,15+2,17+1[CR]

RESEQ,S,I[CR]

THE RESEQUENCE COMMAND CAUSES LINE NUMBERS TO BE ASSIGNED TO EACH LINE IN THE USER'S EDIT WORK AREA. THESE NUMBERS WILL START WITH S AND INCREASE IN INCREMENTS OF I. IF THE PARAMETERS S AND I ARE OMITTED, THEN THE LAST VALUES OF S AND I GIVEN SINCE ONE ENTERED THE EDIT PROGRAM WILL BE USED. IF NO VALUES FOR S AND I HAVE EVER BEEN SPECIFIED, THEN BOTH S AND I ARE ASSIGNED THE VALUE OF ONE.

EXAMPLES OF RESEQUENCE COMMANDS ARE:

RESEQ,100,100[CR]

RESEQ[CR]

REWIND,(LUN),(LUN),..., (LUN)[CR]

THE REWIND COMMAND IS USED TO RETURN THE USER TO THE START OF THE LOGICAL UNITS SPECIFIED. ANY NUMBER OF LOGICAL UNITS MAY BE REWOUND USING A SINGLE COMMAND. EACH OF THE LOGICAL UNITS LISTED MUST HAVE BEEN PREVIOUSLY EQUIPPED AS A FILE.

EXAMPLES OF REWIND COMMANDS ARE:

REWIND,45,37,02,99[CR]

REWIND,02[CR]

SAR,(LINE 1),(LINE 2),/STRING/,/REPLACEMENT/{CR}

THIS COMMAND WILL SEARCH THE USER'S EDIT WORK AREA LOOKING FOR A STRING OF CHARACTERS ANYWHERE IN A LINE WHICH IDENTICALLY MATCHES STRING. IF A MATCH IS FOUND THE CHARACTERS WHICH MATCHED STRING ARE REPLACED BY REPLACEMENT. IF THE REPLACEMENT STRING IS NULL (I.E. //) THEN THE STRING IS DELETED. IF THE REPLACEMENT PARAMETER IS OMITTED THEN THE SEQUENCE NUMBER OF EACH LINE CONTAINING STRING IS PRINTED. (LINE 1) AND (LINE 2) ARE, RESPECTIVELY, THE FIRST AND LAST LINE NUMBER WHICH THE USER WISHES TO HAVE SEARCHED. IF BOTH PARAMETERS ARE OMITTED, THEN ALL THE WORK AREA IS SEARCHED. IF (LINE 1) IS OMITTED THEN LINES FROM THE BEGINNING OF THE WORK AREA THROUGH (LINE 2) ARE SEARCHED. IF (LINE 2) IS OMITTED, THEN (LINE 1) IS SEARCHED. IF (LINE 2) IS ZERO (LINE 1) AND ALL LINES AFTER IT ARE SEARCHED.

IF THE USER SPECIFIES A LINE SEQUENCE NUMBER WHICH DOES NOT EXIST IN THE WORK AREA, AN ERROR MESSAGE IS PROVIDED AND THE COMPUTER RETURNS TO THE COMMAND MODE.

THE SLASHES (/) ARE DELIMITING CHARACTERS--ANY PRINTING CHARACTERS EXCEPT SEMI-COLON (;) OR COMMA (,) MAY BE USED. HOWEVER, THE CHARACTER MUST NOT OCCUR WITHIN STRING OR REPLACEMENT.

EXAMPLES OF SAR COMMANDS ARE:

SAR,1,5,/ZIP/,/ZAP/{CR}

SAR,7,9,'ZILCH',(GASP){CR}

SAR,,,/BUFFER/{CR}

SAR,1,,,/A=B/,/A=B(1){CR}

SAR,,3,/IDINT/,/IDENT/{CR}

SBPFM,(LUN),(LUN),...,(LUN)(CR)

THIS COMMAND WILL CAUSE EACH LOGICAL UNIT SPECIFIED TO BE SPACED BACKWARD UNTIL A FILE MARK IS PASSED, OR THE BEGINNING OF THE FILE IS FOUND. A FILE MARK MAY BE THOUGHT OF AS A MARK WHICH SEPARATES INDIVIDUAL SUBFILES ON THE SAME LOGICAL UNIT. A LOGICAL UNIT MAY BE LISTED MORE THAN ONCE; THE SEARCH BACK COMMAND WILL BE EXECUTED AS MANY TIMES AS THE (LUN) IS LISTED. ALL LOGICAL UNITS LISTED IN THIS COMMAND MUST HAVE BEEN PREVIOUSLY DEFINED AS FILES, USING EQUIP COMMANDS.

EXAMPLES OF SEARCH BACK PAST FILE MARK COMMANDS ARE:

SBPFM,23,09,78(CR)

SBPFM,89,89,89,34(CR)

SBPFM,33(CR)

SEFB,(LUN),(LUN),...,(LUN)(CR)

THIS IS AN ALTERNATE FORM OF THE SBPFM INSTRUCTION.

EXAMPLES OF SEFB COMMANDS ARE:

SEFB,21,33,76(CR)

SEFB,37(CR)

SEFB,29,29,29(CR)

SEFF,(LUN),(LUN),...,(LUN)(CR)

THIS COMMAND WILL CAUSE EACH LOGICAL UNIT SPECIFIED TO BE SPACED FORWARD UNTIL A FILE MARK IS PASSED, OR THE END OF THE FILE IS FOUND. EACH OF THE LOGICAL UNITS SPECIFIED MUST HAVE BEEN PREVIOUSLY DEFINED. A LOGICAL UNIT MAY BE LISTED MORE THAN ONCE; THE SEARCH FORWARD COMMAND WILL BE EXECUTED AS MANY TIMES AS THE (LUN) IS LISTED. THIS COMMAND IS VALID ONLY FOR LOGICAL UNITS WHICH REFER TO FILES.

EXAMPLES OF THE SEFF COMMAND ARE:

SEFF,39,73,21(CR)

SEFF,35(CR)

SEFF,26,26,26(CR)

SFPFM,(LUN),(LUN),...,(LUN)(CR)

THIS IS AN ALTERNATE FORM OF THE SEFF COMMAND.

EXAMPLES OF SFPFM COMMANDS ARE:

SFPFM,34,67,90,01(CR)

SFPFM,23,23,23(CR)

SFPFM,37(CR)

SRCH,(LINE 1),(LINE 2),/STRING/,/REPLACEMENT/[CR]

THIS IS AN ALTERNATE FORM OF THE SAR COMMAND.

EXAMPLES OF SRCH COMMANDS ARE:

SRCH,1,5,/ZIP/,/ZAP/[CR]

SRCH,7,9,'ZILCH',(GASP([CR]

SRCH,,,/BUFFER/[CR]

SRCH,1,,,/A=B/,/A=B(1)/[CR]

SRCH,,,3,/IDINT/,/IDENT/[CR]

STATUS,(LUN),(LUN),...,(LUN)[CR]

THE STATUS COMMAND WILL TYPE INFORMATION ABOUT EACH OF THE LOGICAL UNITS LISTED (SUCH AS READ ONLY, FILE MARK READ, END OF DATA, ETC.). THIS COMMAND IS NOT THE SAME AS THE CONTROL MODE STATUS COMMAND.

EXAMPLES OF A COMMAND MODE STATUS INSTRUCTION ARE:

STATUS,33,12[CR]

STATUS,47[CR]

STATUS,ZAP[CR]

TAB,T1,T2,...,T6[CR]

THE TAB COMMAND CAUSES THE COMPUTER TO SET UP TO 6 TAB STOPS AT THE POINTS SPECIFIED. WHENEVER THE USER DEPRESSES [TAB] (EQUIVALENT TO [CS,I]), THE COMPUTER WILL TAB TO THE NEXT STOP SET EXACTLY AS A TYPEWRITER WOULD. THIS TAB TAKES PLACE WHETHER THE CARRIAGE ON THE USER'S TELETYPE ACTUALLY MOVES OR NOT. UNLESS A USER SPECIFIES WHERE HE WISHES TO SET TAB STOPS, THEY ARE PRESET TO 10, 20, 40, AND 72.

TAB STOPS MUST BE LISTED IN ASCENDING ORDER.

EXAMPLES OF TAB COMMANDS ARE:

TAB,7,10,30,50[CR]

TAB,10,45[CR]

TAB,7[CR]

TABS,T1,T2,...,T6[CR]

THIS IS AN ALTERNATE FORM OF THE TAB COMMAND.

EXAMPLES OF TABS COMMANDS ARE:

TABS,7,10,30,50[CR]

TABS,10,45[CR]

TABS,7[CR]

TAPE[CR]

THE TAPE COMMAND IS USED TO INDICATE THAT ONE WISHES TO ENTER INFORMATION TO THE EDIT WORK AREA FROM A PREPUNCHED PAPER TAPE. THE TAPE COMMAND CLEARS THE WORK AREA, AND PLACES THE COMPUTER IN TEXT MODE WAITING TO READ THE TAPE. NO SEQUENCE NUMBERS ARE PROVIDED, AND NO COLONS ARE PRINTED.

THE PREPUNCHED PAPER TAPE SHOULD HAVE BOTH A LEADER AND A TRAILER PREPARED BY PUNCHING A SERIES OF 50 TO 100 [RUBOUT] CHARACTERS. THIS MAY BE DONE QUITE EASILY BY DEPRESSING [REPT, RUBOUT] FOR ABOUT 5 SECONDS. INDIVIDUAL LINES OF INFORMATION ON THE TAPE MUST BE SEPARATED BY [CR],[LF] IN THAT ORDER. RUBOUTS WITHIN THE TEXT ARE IGNORED.

A CARRIAGE RETURN, [CR], MUST FOLLOW THE COMMAND TAPE. AFTER READING THE TAPE THE USER SHOULD DEPRESS [ESC], [CS,W], OR [ALT MODE] TO RETURN TO THE EDIT COMMAND MODE.

AN EXAMPLE OF A TAPE COMMAND IS:

TAPE[CR]

TTP[CR]

THIS COMMAND WILL GENERATE A PAPER TAPE ON THE TELETYPE. THE PROGRAM WILL PUNCH OUT 5 INCHES OF [RUBOUT] CHARACTERS, A [CS,R] , THE TEXT, [CS,T] , AND 5 MORE INCHES OF OF RUBOUTS. AFTER ENTERING THIS COMMAND AND DEPRESSING [CR], THE USER SHOULD IMMEDIATELY ACTIVATE THE PAPER TAPE PUNCH ON HIS TELETYPE.

THIS COMMAND MAY BE TERMINATED BY THE USER DEPRESSING [BREAK]. THIS ACTION WILL RETURN THE TELETYPE TO CONTROL MODE AND ANY PAPER TAPE GENERATED WILL BE USELESS. ONE MUST THEN TYPE THE CONTROL MODE MI[CR] TO RETURN TO THE EDIT COMMAND MODE.

AN EXAMPLE OF A TELETYPE PUNCH COMMAND IS:

TTP[CR]

UNEQUIP,(LUN)(CR)

THE UNEQUIP STATEMENT CAUSES THE (LUN) SPECIFIED TO BE DELETED FROM THE AVAILABLE LOGICAL UNIT NUMBERS. IF (LUN) IS A FILE WHICH HAS NOT BEEN SAVED, ITS CONTENTS ARE DESTROYED. IF (LUN) IS A FILE WHICH HAS BEEN SAVED BY THE USER, THE DATA IS SAVED.

IF (LUN) IS AN OUTPUT DEVICE, SUCH AS THE PRINTER OR CARD PUNCH, THE INFORMATION ON (LUN) IS SENT TO THE PROPER OUTPUT DEVICE AT THIS TIME. A (LUN) WHICH HAS BEEN UNEQUIPPED MAY NOW BE REDEFINED IN A NEW EQUIP STATEMENT. LOGICAL UNITS 59 THROUGH 61 MAY NOT BE UNEQUIPPED.

EXAMPLES OF UNEQUIP COMMANDS ARE:

UNEQUIP,04(CR)

UNEQUIP,99(CR)

WEOF,(LUN),(LUN),...,(LUN)[CR]

THE WEOF COMMAND PLACES A FILE MARK ON EACH OF THE LOGICAL UNITS SPECIFIED. EACH OF THE LOGICAL UNITS MUST HAVE BEEN PREVIOUSLY DEFINED.

EXAMPLES OF WEOF COMMANDS ARE:

WEOF,37,69,43[CR]

WEOF,76[CR]

WFM,(LUN),(LUN),...,(LUN)[CR]

THIS IS AN ALTERNATE FORM OF THE WEOF COMMAND.

EXAMPLES OF WFM COMMANDS ARE:

WFM,45,93,01[CR]

WFM,1[CR]