

FILE: PATCHES/TSSMCP MONDAY 03/06/78 04:06 PM

\$# PATCH NUMBER 101 FOR TSSMCP CONTAINS 001 CARDS. 00652400
BEGIN DS:= 16 LIT"-SYSTEM HANG, F=";

\$: BY DDD
\$: 7/16/74

\$: TR ...
\$: THIS PATCH REFORMATS THE "SYSTEM HANG" MESSAGE.

\$:*****
\$#PATCH NUMBER 102 FOR TSSMCP CONTAINS 010 CARDS 00000000
\$VOIDT 14218081 14218071

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IF AIT[AIT[0]].[8:10] NEQ 1 THEN 14218072
BEGIN 14218074
  I:=1; 14218076
  WHILE AIT[I].[8:10] = 1 DO I:=I+1; 14218078
  FOR J:=AIT[0] STEP -1 UNTIL 1 DO 14218080
    AIT[J+1]:=AIT[J]; 14218082
  END ELSE I:=AIT[0]+1; 14218084
  AIT[0]:=*P(DUP) + 1; 14218086
  AIT[I]:=-(&1[8:38:10]&M[C][FTF]); 14218088
```

\$: THIS CHANGE CORRECTS AN ERROR IN THE HANDLING OF COBOL68 90000000
\$: OPEN STATEMENTS THAT OCCUR IN THE INPUT OR OUTPUT PROCEDURE 90000005
\$: OF A SORT. THE FILES WILL NOW BE LEFT OPEN AS THEY SHOULD. 90000010

\$:*****
\$#PATCH NUMBER 103 FOR TSSMCP CONTAINS 1 CARDS. 38608920
IF P OR I THEN

\$: THIS PATCH CORRECTS AN ERROR IN THE MCP PROCEDURE BACKCLOSE
\$: THAT WOULD SOMETIMES CAUSE "PUD" FILES NOT TO BE PUNCHED EVEN WITH
\$: THE OPTION AUTOPRNT SET.

\$:*****
\$#PATCH NUMBER 104 FOR TSSMCP CONTAINS 1 CARD 16651000
SCHEDLOOK(KTR,TYPE=7) % FS=6, XS=7

\$: FIXES THE SCHEDULE LINE "XS" KEYIN

\$:*****
\$#PATCH NUMBER 105 FOR TSSMCP CONTAINS 2 CARDS
IF (T1 + PSEUDOMIX[P1MIX]) ≠ 0 THEN 39092165
IF PACKETPAGE[T1 - 32] ≠ 0 THEN 39092167

\$: BY KEN KOVACS
\$: DATA 4/22/74

\$: THIS PATCH CORRECTS AN INVALID INDEX IN CONTROL STATE.

\$:*****
\$#PATCH NUMBER 106 FOR TSSMCP CONTAINS 8 CARDS.
\$ VOIDT 07118401 07118100

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IF PACKETCARD = 5 THEN 07118500
  IF PTYPE = 3 AND NOT CONTINUE AND NOT ADECK THEN 07139520
    IF PKTONLY THEN 20602515
      $ SET OMIT = NOT(PACKETS) 20609425
      IF PSEUDO[UNITNO-32] = 0 THEN 20609430
        PRINTTHECOVER(CARDLOC,UNITNO,PSOURCE); 20609435
      $ POP OMIT 20609440
```

\$: BY KFK
\$: DATE 02/20/75

\$: MSA CENTRAL - DETROIT

\$: THIS PATCH WILL ALLOW PACKETS AND DECKS TO BE MIXED. ALSO IF THE
\$: SPO OPTION "PKTONLY" IS SET THEN ALL DECKS WILL BE USED AS IF THEY

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$! WERE PACKETS. THAT IS THE USE OF PKTONLY IS NOW CHANGED SO THAT
$! IT NO LONGER CONTROLS THE LOADING OF DECKS BUT TO CONTROL OF THEIR
$! USE.
$!*****
$#PATCH NUMBER 107 FOR TSSMCP CONTAINS 1 CARDS.
    HEADER[4]:=0&(@1001)[2:38:10]&SYSNO[4:46:2];                20289115
$! BY KK
$! DATE 8/7/74
$! THIS PATCH WILL CORRECT A CONDITION THAT COULD MARK THE PACKET
$! PAGE AS BEING IN USE BY THE WRONG SYSTEM AFTER A HALT/LOAD.
$!*****
$# PATCH NUMBER 108 FOR TSSMCP CONTAINS 001 CARD.
    IF P2>0 THEN MOVE(15,P2,T+4) ELSE M[T+4]+P2;                03120000
$! BY DDD
$! DATE 8/29/74
$! THIS PATCH ALLOWS ERROR MESSAGES LONGER THAN 60 CHARACTERS
$! TO BE PRINTED CORRECTLY ON A REMOTE TERMINAL THROUGH CANDE.
$!*****
$#PATCH NUMBER 109 FOR TSSMCP CONTAINS 1 CARD.
    IF LOGLINE = 0 THEN LOGLINE + = UNITNO;                    20602502
$! BY DDD
$! DATE 9/19/74
$! THIS PATCH REPLACES A LINE OF CODE THAT WAS INADVERTENTLY
$! LEFT OUT IN THE XV.3 RELEASF. WITHOUT THIS PATCH, ESPDISK
$! IS NOT HANDLED CORRECTLY, INCORRECT LOG ENTRIES ARE MADE,
$! AND SYSTEM HALTS CAN OCCUR.
$!*****
$#PATCH NUMBER 110 FOR TSSMCP CONTAINS 1 CARDS.
    FIB[16].[CF]:=0;%                                          41204000
$! BY KK
$! DATE 10/22/74
$! THIS PATCH CORRECTS THE TSSMCP'S HANDLING OF TAPE FILES
$! CLOSED WITH THE "CLOSE(<FILEID>*)" SYNTAX. THE TSSMCP
$! WOULD "FORGET" THAT THE LAST I/O DONE ON THIS FILE WAS A
$! REVERSE I/O BY ZEROING FIB[16], THUS WHEN THE FILE IS
$! OPENED AGAIN THE TSSMCP WOULD SPACE(FORWARD) OVER
$! THE NEXT FILE, AND THE FILE THAT WAS JUST CLOSED WOULD BE
$! ACCESSED AGAIN.
$!*****
$# PATCH NUMBER 111 FOR TSSMCP CONTAINS 1 CARDS.
$ VOIDT 06098201                                             06097600
$! BY KK
$! DATE 11/ 3/74
$! THIS PATCH WILL ALLOW A DISK SQUASH TO BO STOPPED ONLY AFTER IT
$! HAS FINISHED MOVING A FILE. IF STOPPED SOONER THEN THE AVAILABLE
$! DISK TABLE COULD BE DAMMAGED.
$!*****
$# PATCH NUMBER 112 FOR TSSMCP CONTAINS 1 CARDS.
    RRRMECH + NOT TWO(U) AND RRRMECH; % LET STATUS FIND IT    04383900
$! BY KK
$! DATE 11/ 4/74
$! THIS PATCH CORRECTS A PROBLEM WITH UNITS GOING NOT READY
$! AND THEN NOT BEING PICKED UP AS BEING READY WHEN THEY GO READY
$!*****
$#PATCH NUMBER 113 FOR TSSMCP CONTAINS 5 CARDS
    X: CLK[0] :=                                               03067500
$ SET OMIT = NOT(NEWLOGGING)                                  03067600

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      IF LOGSTOPPED[P1MIX] THEN PROCTIME[P1MIX] ELSE
$ POP OMIT
      PROCTIME[P1MIX] + CLOCK + P(RTR);
$: BY KFK
$: DATE 11/27/74
$: THIS PATCH CORRECTS A CONDITION THAT CAUSED THE LOG OFF MESSAGE TO
$: CONTAIN ERRONEOUS DATE. AS A RESULT OF THE NEW MCP COMPILE TIME
$: OPTION "NEWLOGGING" THE VALUE OF PROCTIME[P1MIX] IS CHANGED TO
$: INDICATE IF THE PROGRAM SHOULD BE CHARGED FOR CPU TIME OR NOT.
$: THIS WAS NOT TAKEN INTO CONSIDERATION WHEN COMM2 PASSED THE VALUE
$: TO BE USED AS "CLOCK" BY CANDE.
$*****
$#PATCH NUMBER 114 FOR TSSMCP CONTAINS 2 CARDS
$ VOID
      IF U < 16 THEN FPB(FN+3).[6:17]+PRNTABLE[U].[31:17];
$: BY KFK
$: DATE 11/27/74
$: WHEN USING A MULTI-FILE PBT THE SECOND AND FOLLOWING FILES WILL
$: SOMETIMES BE PRINTED SEVERAL TIMES. THIS WAS CAUSED BY A CONFLICT
$: IN THE USE OF A FIELD IN THE FPB OF A PROGRAM. THE SAME FIELD
$: THAT IS USED TO HOLD THE NUMBER OF COPIES (FROM A FILE EQUATE)
$: IS ALSO USED TO HOLD THE PRN OF THE TAPE. THIS PROBLEM IS
$: FIXED BY NOT MOVING THE PRN TO THE FPB UNTIL THE FILE IS CLOSED.
$: THEN WHEN THE FILE IS REOPENED A NEW SECTION OF THE FPB WILL BE
$: USED AND THIS WILL CONTAIN THE CORRECT VALUE FOR COPIES.
$*****
$#PATCH NUMBER 115 FOR TSSMCP CONTAINS 1 CARDS
      KIND+FIB[4].[8:4]; IF FIB[13].[28:10]#0 THEN REEL+FIB[13].[28:10];
$: BY KFK
$: DATE 11/27/74
$: IF THE REEL IS GIVEN ON A FILE(EQUATION) CONTROL CARD IT WILL
$: NOT BE USED BY THE MCP WHEN IT LOOKS FOR A TAPE FILE AT FILE
$: OPEN TIME. THIS IS BECAUSE THE REEL NUMBER IS MOVED FROM THE
$: FIB. NOW THE REEL NUMBER IS ONLY MOVED FROM THE FIB IF IT IS
$: NONZERO
$*****
$#PATCH NUMBER 116 FOR TSSMCP CONTAINS 1 CARDS
$ VOIDT 38024081
$: BY KFK
$: DATE 12/23/74
$: IF A PROGRAM READS A DISK FILE THAT HAS A ROW SIZE THAT IS LESS
$: THAN THE PROGRAMS BUFFER SIZE, THE MCP WILL ONLY GET A CORE
$: BUFFER THE SIZE OF THE DISK FILE'S ROW. BUT ANY PROGRAM THAT
$: USES THE BUFFER WITHOUT GOING THUR THE INTRINSICS WILL NOT
$: KNOW THAT THE BUFFER SIZE HAS BEEN CHANGED; THEREFORE, AN INVALID
$: LINK MAY OCCURE IF ONE TRIES TO USE THE PART OF THE BUFFER THAT
$: IS NOT THERE.
$*****
$#PATCH NUMBER 117 FOR TSSMCP CONTAINS 2 CARDS
      IF(NB[F]AND FOURMASK).[1:35]#0 THEN GO CLOSEIT;
      IF(NB[F+5]AND NINEMASK).[1:28]#0 THEN
$: BY DDD
$: DATE 12/27/74
$: THIS PATCH CORRECTS A PROBLEM THAT WOULD CAUSE SOME FILES TO
$: BE MARKED IN USE AFTER A HALT/LOAD ON A SHAREDISK SYSTEM.
$*****
$#PATCH NUMBER 118 FOR TSSMCP CONTAINS 1 CARD

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03067700
03067800
03067900

37284150
37285410

39092000

38024010

06058630
06058640

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IF COUNT <= 0 THEN GO TO START;
$1BY DDD
$12/5/75
$1SOFTWARE FLASH NUMBER 68
$1IF TWO LIBMAIN/DISKS ARE BOTH WAITING FOR THE SAME TAPE TO BECOME
$1READY, ONE COPY WILL BE ASSIGNED THE CORRECT TAPE AND THE OTHER
$1COPY OF LIBMAIN WILL BE ASSIGNED TO MTA.
$1*****
$#PATCH NUMBER 119 FOR TSSMCP CONTAINS 34 CARDS.
REAL BVD,UBLKSZ,SPB;
BCL=[M[CT:=SPACE(41)]]&41[8:38:10];
IF HDRTYPE NEQ 3
THEN FOR NT1:=15 STEP 1 UNTIL NT2 DO BCL[NT1-5]:=H[NT1]
ELSE FOR NT1:=20 STEP 1 UNTIL NT2+5 DO
BCL[NT1-10]:=H[NT1];
UBLKSZ:=NT2;
IF (NT4:=H[2],[5:3] = 2) THEN % DECIMAL (4-BIT)
BCL[0]:=(SPB:=NT2 DIV 30 + (NT2 MOD 30 NEQ 0))& % SEGMENTS/BLOCK
NT1[1:34:14]; % WORDS/RECORD
IF HDRTYPE GEQ 2 THEN % FIGURE OUT EOF USING B6700 FORMULA
BEGIN
STREAM(B:=0 : W:=H[14]);
BEGIN SI:=LOC W; DI:=LOC B; DI:=DI+4; SKIP 4 DB;
20(IF SB THEN DS:=SET ELSE DS:=RESET; SKIP 1 SB);
END;
BVD:=P; % BITS OF VALID DATA IN LAST SEGMENT
IF H[2],[8:1]
THEN IF (NT2:=H[2],[5:3])=2
THEN BEGIN NT1:=12; NT4:=3; END
ELSE IF NT2=4
THEN BEGIN NT1:=6; NT4:=7; END
ELSE BEGIN NT1:=8; NT4:=5; END
ELSE BEGIN NT1:=1; NT4:=4; END;
NT2:=((H[14],[20:28] MOD SPB)*NT1*30
+((BVD + NT4) DIV (48 DIV NT1)));
NT1:=IF NT2 LSS UBLKSZ THEN NT2 ELSE UBLKSZ;
NT2:=NT1+(H[14],[20:28] DIV SPB)*NT3*(NT4:=H[3],[32:16]);
END;
BCL[7]:=IF HDRTYPE GEQ 2 THEN (NT2+NT4-1) DIV NT4 - 1
ELSE H[4];
$VOIDT
H=[M[SPACE(42)]]&30[8:38:10];
H:=H&41[8:38:10];
$1TSSMCP, 4208
$1 B6700 TAPES WITH NEW HEADERS
$1THIS CHANGE ALLOWS THE B5700 LIBRARY MAINTENANCE TO LOAD FILES
$1FROM TAPES WHICH HAVE BEEN CREATED ON A B6700 WITH NEW HEADER
$1FORMATS OF TYPE 2 AND 3.
$( PRI 4208 )
$#PATCH NUMBER 121 FOR TSSMCP CONTAINS 11 CARDS.
$VOIDT
OPTN:=CN; PROG[29]:=0;
DI:=LOC A; SI:=LOC H; SKIP 1 DB; DS:=SET;
$ SET OMIT = NOT B6500LOAD
IF B6500 AND (NOT DESTIN.[1:1]) THEN
BEGIN STREAM(TMP:=TMP:=SPACE(10));
DS:=32LIT"#B6700 TAPE TO TAPE NOT ALLOWED*";

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37240050
27990410
27993900
27994200
27994210
27994220
27994230
27995310
27995600
27996300
27996505
27996510
27996515
27996520
27996525
27996530
27996535
27996540
27996545
27996550
27996555
27996560
27996565
27996570
27996575
27996580
27996585
27996590
27996595
27996600
27996605
27996610
27996800
28070000
28274200

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20566800
20566817
27996675
28475605
28475610
28475620
28475630

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      SPOUT(TMP);
      ABORT;
END;
$ POP OMIT
$TSSMCP, 4211,*
$ LIBRARY MAINT. CORRECTIONS
$ THIS CHANGE PERFORMS THE FOLLOWING:
$ A. CORRECTS MISHANDLING OF ESPDISK SEGMENTS DURING ABORT,
$ B. MAKES HEADERS CREATED FROM COPYING B6700 TAPE FILES "NEW"
$ TYPE HEADERS AND
$ C. DISALLOWS TRANSFERS FROM B6700 SOURCE TAPES DIRECT TO TAPE
$ BECAUSE OF POSSIBLE BAD SEGMENTS PER ROW INFORMATION IN THE
$ B6700 HEADER. ATTEMPTS AT SUCH TRANSFERS WILL CAUSE ABORTION
$ WITH THE FOLLOWING MESSAGE :
$ "#B6700 TAPE TO TAPE NOT ALLOWED".
$ WARNING: IN THE "COPY" CONTROL CARD, THE MAXIMUM NUMBER OF FILES PER
$ OUTPUT UNIT MAY BE CONFUSED WITH THE <MFID> OF A FILE IF
$ THAT <MFID> IS A NUMBER; I.E. THE <MFID> OF THE FIRST FILE
$ FOLLOWING THE WORD "COPY" MAY NOT BE A NUMBER.
$( PRI 4211 )
$#PATCH NUMBER 122 FOR TSSMCP CONTAINS 1 CARDS.
  CNT:      SI:=SI+1; B:=SI; IF SC="" THEN GO TO CNT;TALLY:=0; 08291125
$ BY KFK
$ DATE 2/28/75
$ MSA CENTRAL - DETROIT
$ THIS PATCH WILL ALLOW FOR BETTER SCANNING OF THE PB KEYIN.
$ IT IS NOW OK TO HAVE SPACES AFTER A "#" OR "=".
$*****
$#PATCH NUMBER 123 FOR TSSMCP CONTAINS 27 CARDS.
  STREAM(A:=TOHLD,B:=TOHLD.[42:6]-1,C:=TOHLD.[42:6]#0,
    D:=[CMM[27]]);
  BEGIN
    SI:=LOC A; SKIP SB;
    IF SB THEN
      BEGIN
        SKIP 39 SB;
        IF SB THEN DS:=8 LIT"OFAST "
        ELSE
          BEGIN
            SKIP SB;
            IF SB THEN DS:=8 LIT"OSLOW "
            ELSE
              BEGIN
                C(SI:=LOC B;
                  DS:=6 LIT"OEU # "; DS:=2 DEC;
                  JUMP OUT TO L);
                DS:=8 LIT"ODISK ";
              END
            END
          END
        END
      END
    ELSE
      BEGIN
        SKIP 5 SB;
        DS:=LIT"0"; DS:=7 CHR;
      END;
    END;
$ BY KFK

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28475640
28475650
28475660
28475665

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20571700
20571702
20571710
20571720
20571730
20571740
20571750
20571760
20571770
20571780
20571782
20571790
20571800
20571810
20571820
20571830
20571840
20571842
20571850
20571860
20571870
20571880
20571890
20571900
20571910
20571920
20571930

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$! DATE 3/18/75
$! MSA CENTRAL - DETROIT
$! THIS PATCH WILL PLACE THE OUTPUT UNIT NAME OF A LIBRARY COPY
$! IN WORD 27 OF THE SHEET SO THAT WHEN A TS IS DONE THIS NAME WILL
$! BE LISTED ON THE OUTPUT MESSAGE.
$!*****
$#PATCH NUMBER 124 FOR TSSMCP CONTAINS 2 CARDS.
      IF KIND=7 THEN FPB[FNUM+3]+(*P(DUP))&T2[15:15:8] 38228510
      RO[6:39:9]; 38228520

$! BY KFK
$! 5/7/75
$! MSA CENTRAL - DETROIT
$! WHEN USING A MULTI-FILE PRT THE SECOND AND FOLLOWING FILES WILL
$! SOMETIMES BE PRINTED SEVERAL TIMES. THIS WAS CAUSED BY A CONFLICT
$! IN THE USE OF A FIELD IN THE FPB OF A PROGRAM. THE SAME FIELD
$! THAT IS USED TO HOLD THE NUMBER OF COPIES (FROM A FILE EQUATE)
$! IS ALSO USED TO HOLD THE PRN OF THE TAPE.
$!*****
$#PATCH NUMBER 126 FOR TSSMCP CONTAINS 1 CARD. 20602860
      PROCVAL:=0;

$! BY KFK
$! DATE 04/05/75
$! MSA CENTRAL - DETROIT
$! THIS PATCH CORRECTS AN ERROR IN CONTROLCARD THAT COULD CAUSE
$! UNEXPLAINED CONTROL CARD ERRORS AND SYSTEM HALTS. THE ERROR
$! WAS CAUSED BY CONTROLCARD NOT RESETTING THE STACK VARIABLE
$! "PROCVAL" BACK TO ZERO AFTER A TYPED PROCEDURE WAS CALLED. THUS
$! THE NEXT TYPED PROCEDURE CALLED WOULD START WITH A NON ZERO VALUE.
$!*****
$#PATCH NUMBER 127 FOR TSSMCP CONTAINS 3 CARDS.
      IF (T:=SCAN) = ENDFI THEN 20608740
      GO TO PACK2; 20608760
      20608800

$ VOIDT
$! BY KFK
$! DATE 04/08/75
$! MSA CENTRAL - DETROIT
$! THIS PATCH WILL CORRECT THE WAY CONTROL CARD HANDLES PACKET
$! ERRORS. WITHOUT THIS PATCH THE PACKET WILL ONLY BE FLUSHED
$! TO THE NEXT END OR WAIT CARD NOT TO JUST THE END CARD.
$!*****
$#PATCH NUMBER 128 FOR TSSMCP CONTAINS 3 CARDS.
      IF OU GEQ 0 THEN % WE HAVE AN OUTPUT UNIT 28304590
      IF IU GEQ 0 THEN % WE HAVE AN INPUT UNIT 28304700
      IF OU GEQ 0 THEN % WE HAVE AN OUTPUT UNIT 28306500

$! BY KFK
$! DATE 04/10/75
$! MSA CENTRAL - DETROIT
$! THIS PATCH WILL CORRECT AN ERROR IN THE NEW LIBMAIN/DISK PROGRAM.
$! IF THERE WAS A "NULL LIBRARY TRANSFER" THEN IF THE INPUT OR OUTPUT
$! UNIT IS DISK, WORD ONE OF MEMORY WOULD BE OVERWRITTEN BY A ZERO AS
$! THE MCP TRIED TO CLOSE THE UNIT. ONE OF THE MANY PROBLEMS CAUSED
$! BY THIS SITUATION WAS THAT NO USER CODES WOULD BE ACCEPTED BY
$! CONTROLCARD BECAUSE THE MGP'S USERCODE(STORED IN WORD ONE) IS ZERO.
$! NO ERROR MESSAGE WAS GIVEN TO INDICATE THIS CONDITION AND THE SYSTEM
$! CONTINUED TO RUN BUT ALL USFCODES WOULD BE ZERO.
$!*****
$#PATCH NUMBER 129 FOR TSSMCP CONTAINS 6 CARDS.

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SHEAT[24]:=MCP;
SHEAT[24]:=MCP;
HEADER[2]:=HEADER[5]:=MCP;
SI:=CARD; DS:=9 WDS;
M[BUF+87]:=MCP;
SHEAT[24]:=MCP;
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07262100
08276365
20289113
20289240
20289252
22069212
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$: BY KFK
$: DATE 04/12/75
$: MSA CENTRAL - DETROIT
$: THIS PATCH WILL CAUSE PRNPBT/DISK AND AUTO=LDCNTRL
$: TO BE EXECUTED WITH THE MCP'S USERCODE. THIS INFORMATION
$: IS PLACED INTO THE LOG FILE. ALSO WITH THIS PATCH
$: PACKET PAGES WILL BE GIVEN THE MCP'S USER CODE NOT
$: THE USER CODE "PACKET".
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$:*****
$#PATCH NUMBER 131 FOR TSSMCP CONTAINS 2 CARDS.
USERS: IF(T:=SCAN)NEQUAL THEN GO INCSC; 20605700
IF(T:=SCAN)=PERIO THEN GO INCSC; 20605702
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$: BY KFK
$: DATE 04/10/75
$: MSA CENTRAL - DETROIT
$: THIS PATCH WILL GIVE A CONTROL CARD ERROR IF
$: EATHER THE EQUAL SIGN OR USER CODE IS MISSING ON A
$: USER CONTROL CARD.
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$:*****
$#PATCH NUMBER 132 FOR TSSMCP CONTAINS 1 CARD.
IF FASZ GTR 0 THEN [LIBRARYHELP(5) ELSE IU:=OU:=(FPBPTR:=0)-1; 28246200
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$: BY KFK
$: DATE 04/10/75
$: MSA CENTRAL - DETROIT
$: THIS PATCH WILL CORRECT A CONDITION IN LIBMAIN/DISK THAT
$: WOULD CAUSE A LIBRARY TAPE TO BE CREATED WITH NO LIBRARY
$: FILES ON IT. THIS TAPE RESULTED ON A NULL LIBRARY TRANSFER.
$: ALSO CORE SPACE FOR THE BUFFERS IS NOT OBTAINED UNLESS THERE ARE
$: SOME FILES TO BE COPIED.
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$:*****
$#PATCH NUMBER 133 FOR TSSMCP CONTAINS 1 CARD,
DS:=8LIT":x0x4000"; DS:=8LIT"OPACKET"; 07418700
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$: BY KFK
$: DATE 04/12/75
$: MSA CENTRAL - DETROIT
$: WITH SOME SYSTEMS THE FIRST I/O DONE TO A PRINTER FOR
$: THE PACKET PAGE WILL CAUSE THE PRINTER TO HANG UP FOR
$: EXTENDED PERIOD OF TIME. THIS WAS CAUSED BY DOING AN
$: INVALID PRINTER OPERATION. THAT IS NO PRINTING AND NO
$: PAPER MOVEMENT.
$: THIS I/O RESULTED WHEN THE MCP CHANGED THE I/O
$: DESCRIPTOR FOR THE ABORTED LINE SO THAT THIS LINE WOULD
$: NOT BE PRINTED.
$: NOW A SINGLE SPACE IS GENERATED.
$: THE MCP WOULD RECOVER FROM THIS CONDITION
$: AFTER ABOUT 20 SECONDS.
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$:*****
$#PATCH NUMBER 134 FOR TSSMCP CONTAINS 1 CARD,
ELSE IF U=18 THEN P(DIRECTORYSEARCH(-MFID,FID,13),DEL); 28446300
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$: BY SR
$: DATE 04/03/75
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$! THIS PATCH CAUSES HEADER SPACE FOR DUPLICATE DISK FILES TO BE
$! FORGOTTEN. PREVIOUSLY, IF THE LIBRARY MAINTENANCE TASK INVOLVED
$! MANY DUPLICATIONS, THE HEADER SPACE OF EACH DUPLICATE FILE WAS
$! LEFT IN CORE EVENTUALLY RESULTING IN A "NO-MEM" CONDITION ON
$! MIX ZERO.
$!*****
$#PATCH NUMBER 135 FOR TSSMCP CONTAINS 1 CARD.
MOVE(10,B,T1+2); 41323150
$! BY KFK
$! DATE 04/22/75
$! THIS PATCH CORRECTS A CONDITION THAT WOULD CAUSE AN INVALID
$! ADDRESS ON A HALT LOAD IF MEMORY MOD ONE IS OFF LINE.
$!*****
$#PATCH NUMBER 136 FOR TSSMCP CONTAINS 25 CARDS.
LABEL PE,TE,PA; 18701010
SWITCH S:=PA,PE,TE,IT,US,D,TD,PR,IOT,TMR,AD,WD; 18701100
C1: IF (I4:=I4) GEQ (-5) AND I4 LEQ 6 THEN 18710100
BEGIN GO TO S[I4+5]; 18710200
PA: 18710240
$ SET OMIT = NOT(PACKETS) 18710242
IF (I:=PSEUDOMIX[P1MIX]) GEQ 32 THEN 18710244
I4:=PACKETACT[I-32]; 18710246
$ POP OMIT 18710248
GO TO INITIATE; 18710249
PE: 18710250
$ SET OMIT = NOT(PACKETS) 18710252
IF (I:=PSEUDOMIX[P1MIX]) GEQ 32 THEN 18710254
BEGIN 18710256
I4:=PACKETERR[I-32]; 18710258
PACKETERR[I-32]:=TRUE; 18710260
END; 18710262
$ POP OMIT 18710264
GO TO INITIATE; 18710266
TE: 18710268
$ SET OMIT = NOT(PACKETS) 18710270
IF (I:=PSEUDOMIX[P1MIX]) GEQ 32 THEN 18710272
I4:=PACKETERR[I-32]; 18710274
$ POP OMIT 18710276
GO TO INITIATE; 18710278
$! BY KFK
$! DATE 04/22/75
$! MSA CENTRAL = DETROIT
$! THIS PATCH ADDS THREE NEW TIME FUNCTIONS:
$! 1) TIME(-3), WILL RETURN THE CURRENT STATUS OF THE PACKETERR BIT
$! 2) TIME(-4), THIS FUNCTION WILL SET THE PACKETERR BIT
$! 3) TIME(-5), WILL RETURN THE CURRENT VALUE OF PACKETACT.
$! THESE THREE FUNCTIONS WERE ADDED TO GIVE A PROGRAM SOME CONTROL
$! OVER THE PACKET. NOW A PROGRAM CAN "KILL" A PACKET BY A TIME
$! FUNCTION RATHER THAN BY OS-ING ITSELF WITH A RUN TIME ERROR(DIV
$! BY ZERO, ETC). ALSO A PROGRAM CAN "SEE" IF A SISTER PROGRAM
$! HAS RUN INTO TROUBLE. AND A PROGRAM CAN TELL HOW MANY JOBS ARE
$! RUNNING FROM THE PACKET AT THIS TIME.
$! TIME(-4) WILL RETURN THE VALUE OF PACKETERR BEFORE IT SETS IT.
$!
$! EXAMPLES: (ALGOL)
$!
$! IF A LSS 0 THEN % WE HAVE A PROBLEM

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S: BEGIN % LETS KILL THIS RUN
S: B:=TIME(-4); % KILL PACKET
S: GO TO EXIT; % EXIT PROGRAM
S: END; %
S:
S: AND IN A PROGRAM RUN FROM THE SAME PACKET AT THE SAME TIME
S:
S: IF BOOLEAN(TIME(-3)) THEN GO TO EXIT; % ERROR IN OTHER PROGRAM.
S:
S: IF THE FIRST PROGRAM FINDS A PROBLEM AND WANTS TO STOP THIS RUN IT
S: SETS THE PACKETERR BIT THEN THE SECOND PROGRAM WILL "SEE" THIS
S: AND ALSO GO TO EOJ.
S:*****
$#PATCH NUMBER 138 FOR TSSMCP CONTAINS 3 CARDS.
IF ZIPMIX NEQ 0 THEN 20608112
IF (T:=PSEUDOMIX[ZIPMIX]) GEQ 32 THEN 20608114
PACKETERR[T-32]:=TRUE; 20608116

S: BY KFK
S: DATE 04/23/75
S: MSA CENTRAL - DETROIT
S: THIS PATCH WILL SET THE PACKETERR BIT IF THERE
S: IS A ZIP ERROR IN THE PACKET.
S:*****
$#PATCH NUMBER 140 FOR TSSMCP CONTAINS 22 CARDS.
BEGIN T+(A INX @5400000000000000)&17[8:38:10]; 02287240
IF SEPARATE THEN T+T+(LUN#22)[32:47:1] 02287245
ELSE T+T+(LUN#22)[28:47:1]; 02287250

$ VOIDT 12727501 12726500
$ VOIDT 12739501 12728500
IF KIND=1 THEN M[ALPHA=2]+P(DUP,L0D) & 38280500
(IF SEPARATE THEN 1 ELSE @20)[27:42:6] 38280600
ELSE 38280700
IF NOT SEPARATE THEN 38281600
IF (TYPE<20) THEN 38281700
HEADER[73]+P(DUP,L0D)&(@20)[27:42:6]; 38281800
M[ALPHA]+(*P(DUP))&(@60000)[CTF]; 38590000
IF TYPE<20 THEN 38590100
M[ALPHA]+(*P(DUP))&(IF SEPARATE THEN 1 ELSE @20)[27:42:6]; 38590200
IF NOT SEPARATE THEN M[ALPHA]+(*P(DUP))&1[27:42:6]; 38592100
END; 38594000
IF NOT SEPARATE THEN M[ALPHA]+P(DUP,L0D)&1[27:42:6]; 38594100
M[ALPHA],[20:1]+1; 38594200
IF FIB[14],[FF]#FIB[14],[CF] THEN 38594300
IF SEPARATE THEN P(WAITID(@4000100000,0,U),DEL) 38741000
ELSE P(WAITID(@4002000000,0,U),DEL); 38741100
IF NOT SEPARATE THEN P(WAITID(@4000100000,0,U),DEL); 38742100

S: BY KFK
S: DATE 5/7/75
S: MSA CENTRAL - DETROIT
S: THIS PATCH CHANGES THE USE OF THE SPO OPTION "SEPARATE". IT NOW
S: IS USED TO CONTROL THE PRINTER SPACEING AROUND THE LABEL PAGE.
S: THAT IS IF SEPARATE IS RESET THEN ONLY A DOUBLE SPACE IS DONE
S: AFTER THE BEGINING LABEL AND BEFORE THE ENDING LABEL. IF IT IS
S: SET THE OPERATION OF THE PRINTER IS AS IT WAS BEFORE( A FULL
S: PAGE FOR THE LABEL RECORD).
S: THIS WAS DONE TO HELP WITH THE ENERGY CRUNCH AND PER CUBE REQUEST.
$#PATCH NUMBER 141 FOR TSSMCP CONTAINS 452 CARDS. 00000000

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LS:          IF SC ≠ "" THEN IF SC ≠ LEFTARROW THEN          02615100
              BEGIN SI := SI + 1; GO TO LS; END;              02615200
              IF SC = LEFTARROW THEN GO TO EXIT;              02615300
$ VOIDT 08135001                                           08095000
XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX 08095050
*****
%*
%*          P R I N T D I R E C T O R Y
%*          - - - - -
%*
%* PURPOSE: THIS PROCEDURE HANDLES THE PD, EX, LF, LC AND LS
%* MESSAGES. ALL MESSAGES ARE FORMS OF THE PD MESSAGE
%* EXCEPT FOR CERTAIN DIFFERENCES. THE PD MESSAGE WILL
%* LIST THE NAMES OF THE DESIRED FILES AS WELL AS
%* CERTAIN PIECES OF INFORMATION IF REQUESTED.
%*
%* SYNTAX: THE FORMAT OF ALL THE KEYIN MESSAGES WITH THE
%* EXCEPTION OF THE LF MESSAGE IS AS FOLLOWS:
%*
%* <MESSAGE> <FILE SPECIFIER> <OPTION=LIST>
%*
%* <MESSAGE> ::= PD / EX / LC / LS
%*
%* <FILE SPECIFIER> ::= <FILENAME> / <FILENAME> "/"
%* <FILENAME>
%*
%* <OPTION=LIST> ::= <EMPTY> / <OPTION> / <OPTION> ,
%* <OPTION=LIST>
%*
%* <OPTION> ::= RECS / LAST / DATE / SAVE / SIZE /
%* CREATOR / SECURITY / ALL
%*
%* <FILENAME> ::= [FROM 1 TO 7 CHARACTERS OPTIONALLY
%* ENCLOSED IN QUOTES] / =
%*
%* THE SYNTAX FOR THE LF MESSAGE IS:
%*
%* LF <USERID> <OPTION=LIST>
%*
%* SEMANTICS: THE EX, LF, LC, AND LS MESSAGES ARE JUST
%* MODIFIED FORMS OF THE PD MESSAGE. THE EX MESSAGE IS
%* THE SAME AS A PD EXCEPT THAT ONLY THE EXPIRED FILES
%* ARE LISTED. THE LF IS THE SAME AS A PD EXCEPT
%* THAT ONLY THE FILES BELONGING TO THE SPECIFIED USER
%* ARE LISTED. THE LC MESSAGE IS THE SAME AS A "PD
%* <FILE SPECIFIER> CREATOR". THE LS MESSAGE IS THE
%* SAME AS "PD <FILE SPECIFIER> SECURITY,CREATOR".
%*
%* THE OPTIONS SPECIFY WHAT ADDITIONAL INFORMATION
%* IS TO BE LISTED BESIDES THE DEFAULT INFORMATION. IF
%* AN UNRECOGNIZABLE WORD IS ENCOUNTERED IN THE OPTION
%* LIST, IT IS IGNORED. THE AVAILABLE OPTIONS ARE:
%*
%* RECS = NUMBER OF RECORDS IN THE FILE. (SPECIAL LOGIC
%* IS INCORPORATED TO THE LIST THE CORRECT NUMBER
%* FOR BACKUP FILES).
%*

```

```

02615100
02615200
02615300
08095000
08095050
08095100
08095150
08095200
08095250
08095300
08095350
08095400
08095450
08095500
08095550
08095600
08095650
08095700
08095750
08095800
08095850
08095900
08095950
08096000
08096050
08096100
08096150
08096200
08096250
08096300
08096350
08096400
08096450
08096500
08096550
08096600
08096650
08096700
08096750
08096800
08096850
08096900
08096950
08097000
08097050
08097100
08097150
08097200
08097250
08097300
08097350
08097400
08097450
08097500
08097550
08097600
08097650

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LC = (CODE = 2)#,                                08100650
LF = (CODE = 3)#,                                08100700
LS = (CODE = 4)#,                                08100750
DEFINE                                             08100800
PRIMARYUSER   = HDR[2]#,                          % PRIV. USER CODE. 08100850
SAVEFACTOR   = HDR[3].[2:10]#,                    % SAVE FACTOR.     08100900
LASTACCESSDATE = HDR[3].[12:18]#,                % LAST ACCESS DATE. 08100950
CREATIONDATE  = HDR[3].[30:18]#,                 % CREATION DATE.   08101000
GUARDFILEMFID = HDR[5]#,                          % MFID OF GUARD FILE. 08101050
GUARDFILEFID  = HDR[6]#,                          % FID OF GUARD FILE. 08101100
EOFPOINTER    = HDR[7]#,                          % EOF POINTER.     08101150
SEGSPERROW    = HDR[8]#,                          % SEG. PER ROW.    08101200
NOOFFROWS     = HDR[9].[43:5]#,                  % NO. OF ROWS DECLARED. 08101250
HEADERADDRESS = HDR.[CF]#,                       % CORE ADDRESS OF HEADER. 08101300
%***** S U B R O U T I N E S *****08101350
SUBROUTINE GETREADY;                               08101400
% -----
BEGIN                                              08101500
CODE := BUFF.[9:6];                                08101550
BUFF := (T:=BUFF).[15:15] - 1;                    08101600
INFO := 0 & (LC OR LF OR LS)[42:47:1] & LS[43:47:1]; 08101650
END OF GETREADY;                                  08101700
%
SUBROUTINE GETFILESPECIFIER;                       08101750
% -----
BEGIN                                              08101800
NAMEID(MFID,T); % GET MFID (OR USERCODE IF "LF") 08101850
IF LF THEN USERID := MFID; % FIRST THING IS USERID FOR LF. 08101900
IF MFID = "←" " OR LF THEN 08101950
MFID := - 1;                                       08102000
NAMEID(FID,T);                                     08102050
IF FID = "/" " THEN % GET FID 08102100
BEGIN                                              08102150
NAMEID(FID,T);                                     08102200
NAMEID(N,T); % GET NEXT ITEM, 08102250
END 08102300
ELSE % NO FID SPECIFIED IMPLIES FID OF "=" 08102350
BEGIN 08102400
N := FID; 08102450
FID := -1; 08102500
END; 08102550
IF FID.[6:6] = LEFTARROW OR LF THEN % NO FID SPECIFIED 08102600
FID := - 1; 08102650
END OF GETFILESPECIFIER; 08102700
%
SUBROUTINE PROCESSOPTIONLIST;                       08102750
% -----
BEGIN                                              08102800
WHILE N ≠ "←" " DO % ACCUMULATE OPTIONS 08102850
BEGIN 08102900
FOR I := -1 STEP 1 UNTIL (NUMOPTS = 2) DO 08102950
DUMMY:: IF P(OPTIONS,I,+ ,LOD) = N THEN % MATCHES AN OPTION WORD 08103000
BEGIN 08103050
INFO := INFO OR TWO(I+1); % SET BIT CORRESPONDING TO OPT 08103100
GO TO DROPOUT; 08103150
END 08103200
ELSE % CHECK FOR "ALL" 08103250
08103300
08103350
08103400
08103450

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        IF N = "ALL" THEN % SET ALL OPTION WORD BITS.
        INFO := NOT 0;
DROPOUT:
        NAMEID(N,T); % GET NEXT OPTION WORD.
        IF N = ", " THEN NAMEID(N,T); % SKIP OVER COMMA.
        END;
        GO TO EXIT;
%
OPTIONS ::: "RECS" , % OPTION 0 (INFO.[47:1])
           "LAST" , % OPTION 1 (INFO.[46:1])
           "DATE" , % OPTION 2 (INFO.[45:1])
           "SIZE" , % OPTION 3 (INFO.[44:1])
           "SECURIT", % OPTION 4 (INFO.[43:1])
           "CREATOR", % OPTION 5 (INFO.[42:1])
           "SAVE" , % OPTION 6 (INFO.[41:1])
EXIT:
        END OF PROCESSOPTIONLIST;
%
SUBROUTINE GETSET;
% -----
BEGIN
        IF EX OR INFO ≠ 0 THEN % WE WILL NEED THE HDR.
                HDR := IOQUE & SPACE(30) [CTC];
        END OF GETSET;
%
BOOLEAN SUBROUTINE WEGOTAFILF;
% -----
BEGIN
        SEEKNAM(MFID,FID,C,D,E,N,XLST); % FIND A FILE.
        WEGOTAFILE := C ≠ 0; % C IS ADDRESS OF DISK HEADER.
        END OF WEGOTAFILE;
%
BOOLEAN SUBROUTINE WEWANTTHISFILE;
% -----
BEGIN
        PBDTOG := ((D EQV "PBD" ) = NOT 0 OR (D EQV "PUD" )
                = NOT 0);
        IF HEADERADDRESS ≠ 0 THEN % WE NEED THE HEADER.
                DISKWAIT(-HEADERADDRESS,30,C); % READ HEADER.
        IF LF THEN % CHECK TO SEE IF WE WANT THIS FILE.
                WEWANTTHISFILE := PRIMARYUSER = USERID
        ELSE
                IF EX THEN
                        BEGIN
                                STREAM(A:=CALCULATEPURGE(-SAVEFACTOR),X:=[X]);
                                BEGIN
                                        SI := LOC A; DS := 8 OCT;
                                END;
                                WEWANTTHISFILE := X > LASTACCESSDATE; % TRUE IF FILE EXPIRED
                        END
                ELSE
                        WEWANTTHISFILE := TRUE;
        END OF WEWANTTHISFILE;
%
SUBROUTINE PUTINFILENAME;
% -----
BEGIN

```

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08103500
08103550
08103600
08103650
08103700
08103750
08103800
08103850
08103900
08103950
08104000
08104050
08104100
08104150
08104200
08104250
08104300
08104350
08104400
08104450
08104500
08104550
08104600
08104650
08104700
08104750
08104800
08104850
08104900
08104950
08105000
08105050
08105100
08105150
08105200
08105250
08105300
08105350
08105400
08105450
08105500
08105550
08105600
08105650
08105700
08105750
08105800
08105850
08105900
08105950
08106000
08106050
08106100
08106150
08106200
08106250
08106300

```

```

STREAM(A:=0 : D, F, BUFF); % SET UP FILE NAME.
BEGIN
  SI := LOC D;
  DS := LIT " ";
  2 ( SI := SI + 1; DS := 7 CHR; DS := LIT "/" );
  DI := DI - 1;
  DS := 2 LIT " "; % NEED 2 SPACES TO ALLOW FOR ARROW.
  A := DI;
END;
T := P; % SAVE OFF DEST. INDEX.
END OF PUTINFILENAME;
%
SUBROUTINE DORECS;
% -----
BEGIN
  STREAM(A:=IF PBDTQG THEN EOFPOINTER*5 ELSE EOFPOINTER+1 :T);
  BEGIN
    DS := 9 LIT "RECORDS: ";
    SI := LOC A;
    DS := 8 DEC; % CONVERT NUMBER OF RECORDS TO DEC.
    A := DI; % SAVE OFF DI BEFORE ZERO SUPPRESSING.
    DI := DI - 8;
    DS := 7 FILL;
  END;
  T := P; % SAVE DESTINATION ADDRESS.
END OF DORECS;
%
SUBROUTINE DODATEORLAST;
% -----
BEGIN
  STREAM(X:=[X]);
  BEGIN
    SI := X;
    DS := 8 DEC; % CONVERT DATE TO DECIMAL.
  END;
  GIMEDATE([X],[CF],-X); % CONVERT JULIAN DATE TO 6 DIGITS.
  STREAM(A:=(I=1) : X, T);
  BEGIN
    A ( DS := 10 LIT "ACCESSED: "; JUMP OUT TO L1);
    DS := 9 LIT "CREATED: ";
  L1:
    SI := LOC X;
    SI := SI + 2;
    3 ( DS := 2 CHR; DS := LIT "/" );
    DI := DI - 1; % ERASE THE EXTRA SLASH.
    A := DI; % SAVE DEST. INDEX.
  END;
  T := P; % SAVE DESTINATION ADDRESS.
END OF DODATEORLAST;
%
SUBROUTINE DOSIZE;
% -----
BEGIN
  NT2 := NOOFROWS; % NO. OF ROWS DECLARED.
  NT1 := 0; % NUMBER OF ROWS PROCESSED.
  FOR J := 1 STEP 1 UNTIL NT2 DO % CHECK TO SEE IF ROW EXISTS.

```

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08106350
08106400
08106450
08106500
08106550
08106600
08106650
08106700
08106750
08106800
08106850
08106900
08106950
08107000
08107050
08107100
08107150
08107200
08107250
08107300
08107350
08107400
08107450
08107500
08107550
08107600
08107650
08107700
08107750
08107800
08107850
08107950
08108000
08108050
08108100
08108150
08108200
08108250
08108300
08108350
08108400
08108450
08108500
08108550
08108600
08108650
08108700
08108750
08108800
08108850
08108900
08108950
08109000
08109050
08109100
08109150
08109200

```

```

IF HDR[J+9] ≠ 0 THEN NT1 := NT1 + 1; % BUMP UP COUNT.
STREAM(A:=NT1×SEGSERRGW : T);
BEGIN
  DS := 10 LIT "SEGMENTS: ";
  SI := LOC A;
  DS := 8 DEC;
  A := DI;
  DI := DI - 8;
  DS := 7 FILL;
END;
T := P; % SAVE DESTINATION ADDRESS.
END OF DOSECURITY;
%
SUBROUTINE DOSECURITY;
% -----
BEGIN
  J := IF PRIMARYUSER = 0 THEN 0 % FREE FILE
      ELSE IF GUARDFILEMFD = MARK THEN % UNLOCK OR PUBLIC
            IF GUARDFILEFID = MARK THEN 1 % UNLOCKED
              ELSE 2 % PUBLIC
            ELSE IF GUARDFILEMFD < 0 THEN 3 % PRIVATE
              ELSE 4; % LOCKED
  STREAM(J : A:=GUARDFILEMFD, B:=GUARDFILEFID, T);
  BEGIN
    DS := 10 LIT "SECURITY: ";
    CI := CI + J;
    GO TO FREE;
    GO TO UNLCK;
    GO TO PUBLIC;
    GO TO PRIVATE;
  LOCK: DS := 6 LIT "LOCKED"; GO TO EXIT;
  PRIVATE: DS := 22 LIT "PRIVATE (SECURED WITH ";
    SI := LOC A;
    2 ( SI := SI + 1; DS := 7 CHR; DS := LIT "/" );
    DI := DI - 1;
    DS := LIT ")";
    GO TO EXIT;
  PUBLIC: DS := 6 LIT "PUBLIC"; GO TO EXIT;
  UNLCK: DS := 8 LIT "UNLOCKED"; GO TO EXIT;
  FREE: DS := 4 LIT "FREE";
  EXIT: J := DI;
  END;
  T := P; % SAVE DESTINATION ADDRESS.
END OF DOSECURITY;
%
SUBROUTINE DOCREATOR;
% -----
BEGIN
$SET OMIT = PACKETS
  IF J:=(PBDTG AND (E,[30:18] = 1)) THEN % REEL 1 OF PBD
$POP OMIT
$SET OMIT = NOT(PACKETS)
  IF J:=(PBDTG AND (E,[42:6] = 1)) THEN % REEL 1 OF PBD
$POP OMIT
  BEGIN
    IF LABELREC = 0 THEN LABELREC := SPACE(30);
    DISKWAIT(=LABELREC,30,HDR[10]+2);

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08109250
08109300
08109350
08109400
08109450
08109500
08109550
08109600
08109650
08109700
08109750
08109800
08109850
08109900
08109950
08110000
08110050
08110100
08110150
08110200
08110250
08110300
08110350
08110400
08110450
08110500
08110550
08110600
08110650
08110700
08110750
08110800
08110850
08110900
08110950
08111000
08111050
08111100
08111150
08111200
08111250
08111300
08111350
08111400
08111450
08111500
08111550
08111600
08111650
08111700
08111750
08111800
08111850
08111900
08111950
08112000
08112050

```

```

END;
STREAM(J : B:= PRIMARYUSER=0, C:=PRIMARYUSER,
      D:=LABELREC INX 12, T);
BEGIN
  DS := 9 LIT "CREATOR: ";
  B ( DS := 4 LIT "NONE"; JUMP OUT TO L2 );
  SI := LOC C;
  SI := SI + 1;
  DS := 7 CHR;
L2:
  J ( DS := 2 LIT " (";
    SI := D;
    2 ( SI := SI + 1; DS := 7 CHR; DS := LIT "/" );
    DI := DI - 1; DS := 4 LIT " OF ";
    2 ( SI := SI + 1; DS := 7 CHR; DS := LIT "/" );
    DI := DI - 1; DS := LIT ")" );
  J := DI;
END;
T := P; % SAVE DESTINATION ADDRESS.
END OF DCREATOR;
%
SUBROUTINE DOSAVEFACTOR;
% -----
BEGIN
  STREAM(A := SAVEFACTOR : T);
  BEGIN
    DS := 6 LIT "SAVE: ";
    SI := LOC A;
    DS := 3 DEC;
    A := DI;
    DI := DI - 3;
    DS := 2 FILL;
  END;
  T := P; % SAVE DESTINATION ADDRESS.
END OF DOSAVEFACTOR;
%
SUBROUTINE DOOPTIONS;
% -----
BEGIN
  FOR I := 0 STEP 1 UNTIL (NUMOPTS - 1) DO % SEE IF OPTION BIT SET.
    IF (TWO(I) AND INFO) # 0 THEN %OPTION SELECTED.
      BEGIN
        CASE I OF
          BEGIN
            DORECS;          % CASE 0 = "RECS"
            BEGIN           % CASE 1 = "LAST"
              X := LASTACCESSDATE;
              DODATEORLAST;
            END OF CASE 1;
            BEGIN           % CASE 2 = "DATE"
              X := CREATIONDATE;
              DODATEORLAST;
            END OF CASE 2;
            DOSIZE;         % CASE 3 = "SIZE"
            DOSECURITY;     % CASE 4 = "SECURITY"
            DDCREATOR;      % CASE 5 = "CREATOR"
            DOSAVEFACTOR;   % CASE 6 = "SAVE"

```

```

08112100
08112150
08112200
08112250
08112300
08112350
08112400
08112450
08112500
08112550
08112600
08112650
08112700
08112750
08112800
08112850
08112900
08112950
08113000
08113050
08113100
08113150
08113200
08113250
08113300
08113350
08113400
08113450
08113500
08113550
08113600
08113650
08113700
08113750
08113800
08113850
08113900
08113950
08114000
08114050
08114100
08114150
08114200
08114210
08114250
08114290
08114300
08114310
08114320
08114340
08114350
08114360
08114370
08114400
08114450
08114500
08114550

```



```

        END OF CASES;
        STREAM(I : T); % PUT COMMA AFTER LAST OPTION.
        BEGIN
            DS := 2 LIT ", ";
            I := DI;
            END;
            T := P;
        END OF LOOP TO PROCESS OPTIONS;
    END OF DOOPTIONS;
%
SUBROUTINE MAKETHEMESSAGE;
% -----
    BEGIN
        IF FOUND A FILE THEN % WE NEED A BUFFER.
            BUFF := SPACE(30);
            PUT IN FILE NAME;
            DO OPTIONS;
            STREAM(T); % PUT IN THE LEFT ARROW.
            BEGIN
                DI := DI - 2;
                DS := LIT LEFTARROW;
            END;
        END OF MAKETHEMESSAGE;
%
SUBROUTINE COMPLAIN;
% -----
    BEGIN
        STREAM(BUFF);
        DS := 8 LIT " NULL "; % ORIGINAL INPUT IS AT BUFF + 1.
        SPOUT(BUFF);
        END OF COMPLAIN;
%
SUBROUTINE FORGET EVERYTHING;
% -----
    BEGIN
        IF HEADER ADDRESS ≠ 0 THEN FORGET SPACE(HEADER ADDRESS);
        IF LABEL REC ≠ 0 THEN FORGET SPACE(LABEL REC);
        END OF FORGET EVERYTHING;
%***** S T A R T   O F   C O D E *****
    GET READY;
    GET FILE SPECIFIER;
    PROCESS OPTION LIST;
    GET SET;
    WHILE WE GOT A FILE DO
        IF WE WANT THIS FILE THEN
            BEGIN
                MAKETHEMESSAGE;
                SPOUT(BUFF);
                FOUND A FILE := TRUE;
            END;
        IF NOT FOUND A FILE THEN COMPLAIN;
        FORGET EVERYTHING;
    END OF PRINT DIRECTORY;
%
%: DATE 9/10/75
%: BY JTC - MSA CENTRAL
%: THIS PATCH REWRITES THE PRINT DIRECTORY PROCEDURE, MUCH NEEDLESS
%: CODE HAS BEEN ELIMINATED (THE PROCEDURE IS 30 WORDS SMALLER) AND

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08114600
08114650
08114700
08114750
08114800
08114850
08114900
08114950
08115000
08115050
08115100
08115150
08115200
08115250
08115300
08115350
08115400
08115450
08115500
08115550
08115600
08115650
08115700
08115750
08115800
08115850
08115900
08115950
08116000
08116050
08116100
08116150
08116200
08116250
08116300
08116350
08116400
08116450
08116500
08116550
08116600
08116650
08116700
08116750
08116800
08116850
08116900
08116950
08117000
08117050
08117100
08117150
08117200
99990000
99990100
99990200
99990300

```

\$: SOME NEW OPTIONS ARE AVAILABLE. THE SYNTAX FOR ALL MESSAGES	99990400
\$: HANDLED BY THIS PROCEDURE (PD,EX,LF,LC, AND LS) HAS BEEN CHANGED	99990500
\$: SLIGHTLY IN THAT A SLASH IS NOW REQUIRED BETWEEN THE FIRST AND	99990600
\$: LAST NAMES OF A FILE (A SPACE WOULD SUFFICE PREVIOUSLY) AND	99990700
\$: MULTIPLE OPTION WORDS MAY BE SPECIFIED AFTER ANY OF THE MESSAGES.	99990800
\$: IN ADDITION, FOUR NEW OPTION WORDS HAVE BEEN ADDED. "SAVE"	99990900
\$: LISTS OUT THE SAVE-FACTOR OF THE FILE, "CREATOR" LISTS OUT THE	99991000
\$: PRIVILEGED USERCODE ASSOCIATED WITH THE FILE, "SECURITY"	99991100
\$: LISTS OUT THE ACCESS RIGHTS OF THE FILE, I.E, LOCKED, UNLOCKED,	99991200
\$: PUBLIC, PRIVATE, OR FREE, AND "ALL" LISTS OUT ALL OF THE INFOR-	99991300
\$: MATION AVAILABLE FROM EACH OF THE INDIVIDUAL OPTIONS.	99991400
\$:	99991500
\$: SOME EXAMPLES OF THE MESSAGES THAT ARE POSSIBLE FOLLOW.	99991600
\$:	99991700
\$: PD A/B RECS,DATE,SIZE	99991800
\$: LF SITE ALL	99991900
\$: LCPBD RECS	99992000
\$:	99992100
\$: CONSULT THE HEADING BLOCK OF THE PRINTDIRECTORY PROCEDURE	99992200
\$: FOR ADDITIONAL INFORMATION.	99992300
\$#PATCH NUMBER 142 FOR TSSMCP CONTAINS 1 CARD.	00000000
REAL NEU; DEFINE U=UT#,UA=UT#,NEU1=NEU+J#,NEU2=NEU+NEU#;	06351055
\$: DATE 10/1/75	99990000
\$: BY JTC - MSA CENTRAL	99990100
\$: THIS PATCH CORRECTS A PROBLEM IN SHAREDISK MCPs	99990200
\$: WHICH COULD CAUSE INVALID LINK ERRORS, THE GLOBAL	99990300
\$: VARIABLE AVS WAS BEING USED INCORRECTLY IN THE	99990400
\$: PROCEDURE USERDISKSPECIALCASE.	99990500
\$#PATCH NUMBER 143 FOR TSSMCP CONTAINS 5 CARDS.	00000000
LABEL PE,TE,PA,LL;	18701010
SWITCH S := LL,PA,PE,TE,IT,US,D,TD,PR,IOT,TMR,AD,WD;	18701100
C1: IF (I4:=I4) ≥ (-6) AND I4 ≤ 6 THEN	18710100
BEGIN GO TO S[I4+6];	18710200
LL: I4 := LOGLINE.[40:8]; GO TO INITIATE;	18710230
\$: DATE 9/25/75	99990000
\$: BY JTC - MSA CENTRAL.	99990100
\$: THIS PATCH IMPLEMENTS TIME(-6) WHICH RETURNS THE	99990200
\$: LOGICAL LINE NUMBER FROM WHICH A PARTICULAR PROGRAM	99990300
\$: IS RUNNING, BATCH PROGRAM WILL ALWAYS RETURN A ZERO.	99990400
\$#PATCH NUMBER 144 FOR TSSMCP CONTAINS 7 CARDS.	00000001
PROCEDURE FORMTIME(W,T); VALUE W,T; REAL W,T; FORWARD;	00480010
(S+2+(M[BUF INX Z].[1:5]#>"))[8:38:10];	02173296
FORMTIME([NT1],XCLOCK+P(RTR));	02173297
STREAM(N:=S-1,CL:=S*8-Y,AA:=BUF INX Z,BB := NT1,	02173300
BUF:= [BUF[R]]);	02173301
BEGIN DS := 7 LIT " "; SI := LOC BB; DS := 8 CHR;	02173305
DS := 9 LIT " "; SI := AA;	02173306
\$: DATE 10/20/75	99990000
\$: BY JTC - MSA CENTRAL.	99990100
\$: THIS PATCH ADDS THE TIME OF DAY TO EACH MESSAGE AS IT IS	99990200
\$: ENTERED INTO THE PACKET PAGE.	99990300
\$#PATCH NUMBER 145 FOR TSSMCP CONTAINS 7 CARDS	
LABEL IPCERR;	19504100
INIT,SLOW,C34,C35,C36,C37,TW,TW,C40,C41,IPCERR,	19508100
IPCERR,IPCERR,IPCERR,IPCERR,IPCERR,TW,SLOW;	19508200
IPCERR: TERMINATE (P1MIX);	19575000
TERMINALMESSAGE (96);	19575100

"8INVALID",	"8 IPC C",	41445500
"20M....",		41445600
\$: BY JTC - MSA CENTRAL, SOFTWARE FLASH 161		
\$:*****		
\$#PATCH NUMBER 146 FOR TSSMCP CONTAINS 41 CARDS.		00000000
LABEL EOF, CLEANUP;		38363000
DEFINE H = HEADER#;		38385700
\$ VOIDT 38477001		38446500
BEGIN % COMPILE TO LIBRARY		38447000
FOR T1 := 15 STEP 1 UNTIL 22 DO % COPY PROC, I/O,		38447500
SEGO[T1] := SKEL[T1]; % STACK, COMMON, PRIO,, ETC.		38448000
IF (T2 := SKEL[13]) # 0 THEN % LAB. EQN. ENTRIES		38448500
BEGIN		38449000
SKEL[13] := 0; % SO TERMINATE WONT SEE ESPDISK STUFF		38449500
DISKWAIT(SKEL.[CF],30,T3); % REWRITE SKEL. SHEET		38450000
SEGO[15] := H[7] + 1; % ADDRESS OF 1ST ENTRY		38450500
DO		38451000
BEGIN % COPYING LABEL EQN. INFO INTO CODE FILE		38451500
IF DISKADDRESS(MID,FID,FPB[FNUM+3],		38452000
(T1:=H[7];:=H[7]+1),H#0) = 0 THEN % NO ROOM		38452500
BEGIN		38453000
DO		38453500
BEGIN		38453600
DISKWAIT(=SKEL.[CF],30,T2); % GET SEG.		38453700
FORGETESPDISK(T2);		38454000
END		38454100
UNTIL (T2 := SKEL[29]) = 0;		38454500
FILEMESS(="DISK ", "OVRFLOW",MID,FID,		38455000
R,D,C);		38455500
END		38456000
ELSE		38456500
BEGIN		38457000
DISKWAIT(=SKEL.[CF],30,T2); % GET SEG.		38457500
FORGETESPDISK(T2);		38458000
IF (T2 := SKEL[29]) # 0 THEN % MORE OF EM		38458500
SKEL[29] := T1 + 1; % ADDR. IN CODE FILE		38459000
DISKWAIT(SKEL.[CF],30,I:=(H[T1 DIV H[8]		38459500
+10] + T1 MOD H[8]));		38460000
END		38460500
END		38461000
UNTIL T2 = 0;		38461500
END OF PROCESSING LABEL EQUATION INFO;		38462000
SEGO[6] := NABS(*P(DUP)); % NEW FORMAT SEG. ZERO		38462500
H[4].[10:1] := 1; % MARK AS PROG. FILE		38463000
DISKWAIT(SEGO.[CF],30,H[10]); % REWRITE SEG. ZERO		38463500
END OF COMPILE TO LIBRARY PROCESSING;		38464000
\$: DATE 1/19/76		99990000
\$: BY JTC - MSA CENTRAL.		99990100
\$: THIS PATCH CORRECTS AN UNLIKELY ERROR IN DISKCLOSE WHICH		99990200
\$: CAN CAUSE ESP DISK SEGMENTS TO BE LEFT IN USE IF A COMPILER		99990300
\$: GETS DS-ED FOR DISK OVERFLOW. IN ADDITION, THE PATCH USES		99990400
\$: THIS OPPORTUNITY TO REWRITE THE EXCEPTIONALLY BAD LOGIC		99990500
\$: CONTAINED IN THIS ROUTINE.		99990600
\$#PATCH NUMBER 147 FOR TSSMCP CONTAINS 2 CARDS		
UPTIMEOUT(MIX);		24035300
DOWNTIMEOUT(MIX);		24096800
\$: BY JTC - MSA CENTRAL, SOFTWARE FLASH 162		

```

S!*****
$#PATCH NUMBER 148 FOR TSSMCP CONTAINS 1 CARD
    TEMP ← F & K [CTF];
S: BY JTC - MSA CENTRAL, SOFTWARE FLASH 163
S: SEE ALSO DREXEL U. PATCHES 601,662,748
S!*****
$#PATCH NUMBER 149 FOR TSSMCP CONTAINS 7 CARD.
    DS := 8 DEC; DS := 2 LIT "←";
    DI := DI - 10; DS := 7 FILL;
    SI := E; DS := 10 CHR;
    BEGIN SI:=LOC A; DS:=8 DEC; DS:=2 LIT "←";
        DI:=DI-10; DS:=8 FILL; A:=DI;
        DI:=T; SI:=A; DS:=10 CHR;
    TWXOUT(T,10,0&[CTF]&[2:47:1],R6);
S: DATE 2/11/76
S: BY JTC - MSA CENTRAL
S:
S: THIS PATCH CAUSES AN EXTRA BLANK TO BE TYPED OUT AFTER THE SEQUENCE
S: NUMBER IS SEQUENCE MODE. THIS IS CONVENIENT FOR LINING
S: INPUT WITH PREVIOUSLY PRINTED OUTPUT SINCE THE LIST AND PRINT
S: COMMANDS OF CANDE PRINT AN EXTRA SPACE AFTER THE SEQUENCE NUMBER.
S!*****
$#PATCH NUMBER 150 FOR TSSMCP CONTAINS 12 CARDS.
    STREAM(LCFLG:=LONGCARRIAGE[S1],V:=(V:=GETAREA(0))+1);
    BEGIN
        DS := 6 LIT "DELS<#";
        LCFLG (DS := 3 LIT "<");
        DS := LIT LEFTARROW;
    END;
    STREAM(LCFLG:=LONGCARRIAGE[S1],V:=V+1);
    BEGIN
        DS := 3 LIT "S<#";
        LCFLG (DS := 3 LIT "<");
        DS := LIT LEFTARROW;
    END;
S: DATE 2/11/76
S: BY JTC - MSA CENTRAL
S:
S: THIS PATCH ADDS AN EXTRA DELAY FOR TERMINALS WITH LONG CARRIAGES
S: AFTER THE CARRIAGE RETURN TYPED OUT WHEN THE USER TYPES A
S: LEFTARROW. THIS PREVENTS THE BEGINNING OF SEQUENCE NUMBERS
S: FROM BEING LOST IN SEQUENCE MODE.
$#PATCH NUMBER 151 FOR TSSMCP CONTAINS 38 CARDS.
    ,ITSALLBATCH = TOGLE.[16:1]#
    END
    ELSE % ITS BELOW THE FENCE
    IF ITSALLBATCH THEN % WE WILL WAIT AWHILE
    BEGIN
        TANKS[LL] := NABS(T);
        CLICK := CLOCK + P(RTR) + 128; % 2 SEC.
        SLEEP(0,0); % WAIT FOR TIME OUT.
        GO TO START; % TRY AGAIN.
    END;
    IF P(0,RDS) < FENCE THEN % BELOW THE FENCE
    BEGIN CLICK := CLOCK + P(RTR) + 1023 + 1023; % 34 SEC.
        COMPLEXSLEEP(INPUTANK[T],INPUTN OR TERMSET(P1MIX));
    END ELSE

```

```

18273055
00000000
03733500
03734000
03735000
19559120
19559140
19559160
19559200
99990000
99990100
99990200
99990300
99990400
99990500
99990600
99999999
00000000
03826100
03826200
03826300
03826400
03826500
03826600
03900000
03900100
03900200
03900300
03900400
03900500
99990000
99990100
99990200
99990300
99990400
99990500
99990600
00000000
00081785
03147000
03147100
03147200
03147300
03147400
03147500
03147600
03147700
03147800
03299700
03299730
03299750
03299780

```

```

      IF [MEM[MIX,0]].[CF] ≥ FENCE OR ITSALLBATCH THEN
      IF T < @20000 OR T > @100000 THEN
SUBROUTINE CLEARALLTANKS;
BEGIN CLEARLINE(LOGLINE,0);
  TANKS[I:=LOGLINE.[40:8]]:=(+P(DUP))&0[CTC];
  IF WORKING THEN          % MAKE SURE HARRY ISNT
  IF HARRYSTA = I THEN    % DIDDLING OUR LINE
    COMPLEXSLEEP(NOT WORKING OR HARRYSTA ≠ I);
  CLEARINPUTANK;
  TANKOK[I] := 0;
END OF CLEARALLTANKS;
  IF LOGLINE.[33:7] ≠ 0 AND P1MIX ≠ CANDYINX THEN
    CLEARALLTANKS;
    I := 0; % RE-INITIALIZE FOR CORE SEARCH
    CLEARALLTANKS;
$VOIDT 14367035
  BELOW := (S[2].[8:10]=5) OR ITSALLBATCH;
  IF FENCE.[32:16] ≠ FENCE OR FENCE < 8192 THEN FENCE := 16384;
  IF J < 7 THEN % NEED TO FIND HIGHEST ON LINE MOD BELOW FENCE
    +(CHUNKMAX=0) % IN CASE ITS ALL BATCH
    I:=CHUNKMAX+(CHUNKMAX=0);
    IF (T:=M[A+19].[32:16]) ≠ FENCE AND T ≠ 0 THEN
      ≥ @20000 AND T ≤ @100000 THEN FENCE := T;
    ITSALLBATCH := FENCE ≥ @60000;
$: DATE 2/11/76
$: BY JTC - MSA CENTRAL (PATCH RECEIVED FROM STEVE KELLEY - LSSG U.K.)
$:
$: THIS PATCH ALLOWS THE FENCE TO BE MOVED TO THE TOP OF MEMORY,
$: SUPPRESSING ALL SWAPING, ALL JOBS ENTERED ARE TREATED AS BATCH
$: JOB - REGARDLESS OF RUN, EXECUTE OR COMPILE.
$:
$: CANDE PROGRAMS USING TERMINALS MAY RUN WITH THE FENCE AT 32K,
$: HOWEVER, THEY WILL NOT BE SWAPPED AND THE JOBS MIGHT BE SCHEDULED
$: SINCE ALL JOBS ARE TREATED AS BATCH.
$:
$: IT IS INTENDED THAT ONLY LIMITED TERMINAL USAGE OCCURS IF THE FENCE
$: IS AT THE TOP OF MEMORY, SINCE REMOTE JOBS WILL TIE UP CORE WHEN
$: WAITING FOR TERMINAL INPUT OR WHEN STOPPED OR WAITING FOR EXTERNAL
$: CONDITION SATISFIED.
$:
$: THIS PATCH WILL CAUSE THE TSS MCP TO SIMULATE THE
$: BATCH, OR DC, MCP WHILE MAINTAINING THE TSS LOGGING
$: FACILITIES. THIS PATCH WILL NOT CAUSE REENTRANCY TO
$: OCCUR.
$: *****
$: #PATCH NUMBER 152 FOR TSSMCP CONTAINS 5 CARDS.
      SPACESTACKSIZE = 85#;
      SPACESTACKSIZE = 105#;
ARRAY SPACESTACK[*];
$VOIDT
      I := SPACESTACKSIZE; T := P(,SPACESTACK); FIX; %
$: DATE 3/1/76
$: BY JTC - MSA CENTRAL
$:
$: THIS PATCH INCREASES THE SPACE STACK SIZE FROM 80 TO 85 WORDS TO
$: PREVENT A POSSIBLE STACK OVERFLOW IN THE SPACE STACK, THE OVERFLOW
$: OCCURRED WHEN OLAY CALLED DISKSPACE AND DISKSPACE FORKED

```

```

07500000
09916000
14351440
14351445
14351450
14351455
14351460
14351465
14351470
14351475
14351480
14360510
14360520
14360530
14367021
14367022
20163200
44104000
44109900
44151050
44163100
44191020
44191040
44420000
99990000
99990100
99990200
99990300
99990400
99990500
99990600
99990700
99990800
99990900
99991000
99991100
99991200
99991300
99991400
99991500
99991600
99991700
99991800
99991900
99999999
00000000
00013870
00013890
00013910
23399000
44173100
99990000
99990100
99990200
99990300
99990400
99990500

```

```

$! GETMOREOLAYDISK FOR A PROGRAM RUNNING UNDER THE FENCE, OCCASIONALLY, 99990600
$! WHEN FORK WENT TO GET A FIVE WORD AREA TO BUILD THE INDEPENDENT 99990700
$! RUNNER ENTRY IN THE FORKQUE THERE WERE NO FIVE WORD AREAS AVAILABLE 99990800
$! AND IT WAS NECESSARY TO BREAK UP ONE OF THE LARGER AREAS, THIS 99990900
$! INVOLVED CALLING FORGETAREA AND IT WAS THIS CALL ON FORGETAREA 99991000
$! THAT OVERFLOWED THE STACK. 99991100
$!*****99999999
$#PATCH NUMBER 153 FOR TSSMCP CONTAINS 43 CARDS, 00000000
    FIELD MAYBEWORKEDON = [7:1]; 21015100
    LABEL START; 21015200
    X := @104; % THIS IS THE CODE WE WILL PASS TO 21015400
        % GETSPACE THE FIRST TIME, IT REQUESTS 21015500
        % OVERLAY MEMORY FOR THE MCP AND THAT 21015600
        % WE WANT TO BE RETURNED TO ON A NO 21015700
        % MEM. 21015800
START: 21015900
    IF NOT M[S].MAYBEWORKEDON THEN % WAIT TILL OTHER GUY IS DO 21016000
        SLEEP([M[S]],0 & TRUE [MAYBEWORKEDON]); 21017000
    BEGIN 21018100
        Z := Y.[8:10]; % SIZE OF PROCEDURE IN WORDS 21018200
        M[S].MAYBEWORKEDON := FALSE; 21018300
    % 21018400
    % NOW WE WILL ATTEMPT TO GET SPACE FOR THIS MCP PROC. 21018500
    % IF WE FAIL WE WILL WAIT FOR A SECOND AND THEN TRY 21018600
    % AGAIN, THIS ENSURES THAT IF WE GET DS=ED WHILE 21018700
    % SLEEPING WAITING FOR MEMORY WE WILL NOT LEAVE THE 21018800
    % TOGGLE LOCKED UP FOR THIS PROCEDURE. 21018900
    % 21019000
    IF (T:=GETSPACE(Z,65,X)+2) = 2 THEN % NO MEM 21019100
        BEGIN 21019200
            M[S].MAYBEWORKEDON := TRUE; 21019300
            X.[46:1] := TRUE; % DONT PUT OUT MESSAGE 21019400
            SLEEP([CLOCK],NOT CLOCK); % WAIT A SECOND 21019500
            GO TO START; 21019600
        END; 21020000
        M[S] := (*P(DUP)) & T [CTC] & TRUE [MAYBEWORKEDON]; 21024000
    % 24304100
    % FIELDS OF SAVEF PARAMETER 24304110
    % 24304120
    % FIELD 24304130
    %   NEEDOLAY = 09:39 % THIS FIELD IS NON ZERO IF 24304140
    %   % REQUESTOR WANTS OLAY SPACE 24304150
    %   TYPENOMEMANDRETURN = 45:01 % IF SAVEF.[45:02] = 3 THEN 24304170
    %   ,JUSTRETURN = 46:01 % GETSPACE WILL TYPE OK MEM 24304180
    %   ,GETFROMFRONT = 47:01 % IF SUCESSFULL. 24304190
    %   ; 24304200
    %   STREAM(X:=(MESS#0 OR SAVEF.[45:2]=3), MIX, SIZE, 24305700
    %   MESS:=MESS:=GETAREA(0)); 24305750
    %   IF SAVEF.JUSTRETURN THEN P(O,RTN); 24315000
    %   IF SAVEF.TYPENOMEMANDRETURN THEN P(O,RTN); 24317000
    %   IF MESS#0 OR SAVEF.[45:2] = 3 THEN TELLSP0; 24401000
$! DATE 3/1/76 99990000
$! BY JTC - MSA CENTRAL 99990100
$! 99990200
$! THIS PATCH WILL PREVENT A PROGRAM FROM BEING DS=ED WHILE 99990300
$! TRYING TO BRING IN AN MCP PROCEDURE, THIS USUALLY LEFT THE TOGGLE 99990400
$! FOR THE PROCEDURE LOCKED UP SO THAT THE PROCEDURE WAS PERMANENTLY 99990500

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$! PREVENTED FROM BEING BROUGHT INTO CORE. THIS CONDITION OCCURRED 99990600
$! WHEN THE PROGRAM WAS SLEEPING WAITING FOR A NO MEM CONDITION TO 99990700
$! CLEAR UP SO THAT THE PROCEDURE COULD BE BROUGHT IN AT THE SAME TIME 99990800
$! THAT THE OPERATOR DS-ED THE PROGRAM. IF THE NO MEM CONDITION DID 99990900
$! NOT CLEAR UP IN ABOUT 8 SECONDS, NSECONO WOULD FORCE 99991000
$! THE STACK TO BE DS-ED. NOW, ESPBIT WILL HANDLE THE NO MEM 99991100
$! CONDITION HIMSELF IN SUCH A WAY THAT NO TOGGLES WILL BE LOCKED 99991200
$! SHOULD THE OPERATOR DS THE PROGRAM WHILE IT IS TRYING TO BRING IN 99991300
$! THE PROCEDURE, 99991400
$! 99991500
$! IF A -NO MEM- MESSAGE IS DISPLAYED BY ESPBIT UNDER THE 99991600
$! ABOVE CONDITIONS, THERE WILL NOT BE A CORRESPONDING 99991700
$! -OK MEM- MESSAGE. 99991800
$!*****99999999
$#PATCH NUMBER 154 FOR TSSMCP CONTAINS 30 CARDS. 00000000
X 48038120
X IF WE REACH THIS POINT THEN THIS JOB HAS USED 48038130
X UP ITS TIME SLICE (EITHER PROCESSOR OR I/O) OR 48038140
$VOIDT 48038401 48038149
X THIS JOB HAS BEEN DOING EXCESSIVE OVERLAY AND 48038150
X DESERVES ANOTHER CHUNK OF MEMORY. IF THE 48038160
X PROGRAM HAS USED UP ITS TIME SLICE, WE WILL 48038170
X SWAP IT OUT IF THERE IS SOME OTHER PROGRAM THAT 48038180
X IS READY TO RUN AND CAN USE THIS GUYS CHUNKS. IF 48038190
X THE PROGRAM HAS BEEN DOING EXCESSIVE OVERLAY AND 48038200
X THE PROGRAM HAS ROOM FOR EXPANSION AND DIDNT USE 48038210
X A MAX CORE CARD, WE WILL SWAP IT OUT 48038220
X AND SWAPPINGIO WILL ARRANGE TO OBTAIN ANOTHER 48038230
X CHUNK. 48038240
X 48038250
X IF P(0,RDS) > FENCE THEN % SWAP JOB 48038260
X BEGIN 48038270
X FOR NT2 := SC[P1MIX] STEP 1 UNTIL LC[P1MIX] DO 48038280
X IF ACTIVE[NT2] > 1 THEN % SOMEONE CAN USE THIS 48038290
X BEGIN % CHUNK. 48038300
X SWAP(TIMEND,1); % 48038310
X GO TO RETURN; 48038320
X END; 48038330
X IF OLAYCTR[P1MIX] < 0 THEN % EXCESSIVE OVERLAY. 48038340
X IF DONTEXPANDBITS[P1MIX] = 0 THEN % EXPANDABLE 48038350
X BEGIN 48038360
X SWAP(TIMEND,1); % 48038370
X GO TO RETURN; 48038380
X END; 48038390
X END; 48038400
$! DATE 3/12/76 99990000
$! BY JTC - MSA CENTRAL 99990100
$! 99990200
$! THIS PATCH PREVENTS A JOB FROM BEING SWAPPED OUT TO OBTAIN A NEW 99990300
$! CHUNK WHEN THE JOB CANNOT BE EXPANDED. 99990400
$!*****99999999
$#PATCH NUMBER 155 FOR TSSMCP CONTAINS 261 CARDS. 00000000
BEGIN STREAM(A:=TYPEDSPACE(10,SPOUTMSGAREAV) ; );% 00005230
DEFINE 00017005
TYPEDSPACE(TYPEDSPACE1,TYPEDSPACE2) = 00017010
(GETSPACE(TYPEDSPACE1,TYPEDSPACE2,0)+2)# % 00017015
,ARRAYDESC(ARRAYDESC1,ARRAYDESC2) = 00017020

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      ([M[GETSPACE(ARRAYDESC1,ARRAYDESC2,0)+2]] & ARRAYDESC1 [SIZE])# %00017025
,SAVEARRAYDESC(SAVEARRAYDESC1,SAVEARRAYDESC2) =                                00017030
      ([M[GETSPACE(SAVEARRAYDESC1,SAVEARRAYDESC2,1)+2]])                        00017035
      & SAVEARRAYDESC1 [SIZE])# %00017040
}                                                                                00017045
XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX%00017100
%*****%*****%*****%*****%*****%*****%*****%*****%*****%*****%00017110
%*                                                                                   *%00017120
%* MEMORY AREA TYPES STORED IN 3:6 FIELD OF FIRST MEMORY                         *%00017130
%* LINK OF ALL MEMORY AREAS                                                       *%00017140
%*                                                                                   *%00017150
%*****%*****%*****%*****%*****%*****%*****%*****%*****%*****%00017160
XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX%00017170
DEFINE
  UNKNOWNAREAV      = 0# % 00017180
  ,CODEAREAV        = 1# % 00017190
  ,DATAAREAV        = 2# % 00017200
  ,IOBUFFERAREAV    = 3# % 00017210
  ,ALGOLFIBAREAV    = 4# % 00017220
  ,INQUIRYBUFFAREAV = 5# % 00017230
  ,COBOLFIBAREAV    = 6# % 00017240
  ,TYPE7INTAREAV    = 7# % 00017250
  ,DISKHEADERAREAV = 8# % 00017260
  ,MAINTBUFFAREAV  = 9# % 00017270
  ,LBLEQNAREAV      = 10# % 00017280
  ,SEGZEROAREAV     = 11# % 00017290
  ,STACKAREAV       = 12# % 00017300
  ,TYPE13INTAREAV   = 13# % 00017310
  ,SCRATCHDIRAREAV  = 14# % 00017320
  ,OPSETAREAV       = 15# % 00017330
  ,DIRTOPAREAV      = 16# % 00017340
  ,SPOUTMSGAREAV    = 17# % 00017350
  ,UVRWAREAV        = 18# % 00017360
  ,JARROWAREAV      = 19# % 00017370
  ,CIDROWAREAV      = 20# % 00017380
  ,INQINPUTAREAV    = 21# % 00017390
  ,INTARRAYAREAV    = 22# % 00017400
  ,RJEINPUTAREAV    = 23# % 00017410
  ,DCQUEUEAREAV     = 24# % 00017420
  ,DALOCROWAREAV    = 25# % 00017430
  ,SHEETAREAV       = 26# % 00017440
  ,STAWORDAREAV     = 27# % DC MCP ONLY 00017450
  ,KEYINBUFFAREAV   = 28# % 00017460
  ,FSAREAV          = 29# % 00017470
  ,DC19QUEUEAREAV   = 30# % DC MCP ONLY 00017480
  ,AVTABLEAREAV     = 31# % 00017490
  ,TRACETABLEAREAV = 32# % DC MCP ONLY 00017500
  ,SEGDICTAREAV     = 33# % 00017510
  ,STACKPRTAREAV    = 34# % 00017520
  ,MCPTABLEAREAV    = 35# % 00017530
  ,IRSTACKAREAV     = 36# % 00017540
  ,FPBAREAV         = 37# % 00017550
  ,CONTROLCARDAREAV = 38# % 00017560
  ,LABELAREAV       = 39# % 00017564
  ,MDUMPAREAV       = 40# % 00017566
  ,ESPDISKAREAV     = 41# % 00017568
  ,LOGAREAV         = 42# % 00017570

```



```

,CANDEINPUTAREAV = 43# % TSS MCP ONLY 00017572
,OBJOINPUTAREAV = 44# % TSS MCP ONLY 00017574
,TYPE45 = 45# % 00017576
,TYPE46 = 46# % 00017578
,TYPE47 = 47# % 00017580
,TYPE48 = 48# % 00017582
; 00017600

```

```

XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX00017700
XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX*00017710

```

MEMORY LINKS

```

*00017720
*00017730
*00017740
XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX*00017750
XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX00017760

```

FIELDS OF MEMORY LINK 0 OF ALL AREAS

```

FIELD
AREA AVAILF = 01:01 % = 0 FOR IN-USE AREA, = 1 FOR AVAIL. AREA 00017780
,AREASAVEF = 02:01 % = 1 FOR IN-USE SAVE AREA, = 0 FOR OLAY AREA 00017790
,AREATYPEF = 03:06 % TYPE OF AREA (SEE ABOVE) 00017800
,AREAMIXF = 09:06 % MIX INDEX OF OWNER OF AREA 00017810
,AREABACKLINKF = 18:15 % ADDRESS OF PREVIOUS AREA 00017820
,AREAFWDLINKF = 33:15 % ADDRESS OF NEXT AREA 00017830
; 00017840

```

```

$ VOIDT 00068001 00059000
XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX00060000

```

MISCELLANEOUS FIELD DEFINITIONS

```

XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX*00060010
*00060020
*00060030
*00060040
XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX*00060050
XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX00060060

```

FIELD

```

FF = 18:15 % 00060070
,CF = 33:15 % 00060080
,CTF = FF % 00060090
,CTC = CF % 00060100
,MSFF = 16:01 % 00060110
; 00060120

```

FIELDS OF AIT ENTRY

```

FIELD
FILEBIT = 01:01 % 00061000
,OWNBIT = 02:01 % 00061010
,DIMENSIONS = 03:05 % 00061020
,BLKCNTR = 08:10 % 00061030
,MOM = 18:15 % 00061040
; 00061050

```

FIELDS OF DATA DESCRIPTOR

```

FIELD
FLAGBITF = 00:00 % 00062000
,DATABITF = 01:01 % ALWAYS OFF FOR A DATA DESCRIPTOR 00062010
; 00062020

```

```

    PBIT      = 02:01 % ON IF DESCRIPTOR POINTS TO AREA OF CORE      00062060
    ,SIZE     = 08:10 % SIZE OF ARRAY ROW IF ARRAY DESC.           00062070
                                     % 0 FOR INDEXED DATA DESC. OR NAME DESC. 00062080
% ,MOMADDRESSF = 18:15 % ADDRESS OF MOTHER DESCRIPTOR.           00062090
% ,ADDRESSF  = 33:15 % IF PBIT IS ON THEN THIS FIELD CONTAINS AN 00062100
                                     % ACTUAL CORE ADDRESS. IF THE PBIT IS OFF THEN 00062110
                                     % IF THE VALUE OF THIS FIELD IS GREATER THAN 00062120
                                     % OR EQUAL TO 512 THEN THE FIELD CONTAINS A 00062130
                                     % DALOC ADDRESS WHICH CAN BE USED TO LOCATE THE 00062140
                                     % DATA IN THE OVERLAY DISK AREA ASSIGNED TO THE 00062150
                                     % THE PROGRAM. IF THE VALUE OF THE FIELD IS LESS 00062160
                                     % THAN 512 THEN THIS FIELD CONTAINS A CODE 00062170
                                     % INDICATING THE STATUS OF THE AREA.      00062180
                                     %
                                     %      0  NEVER ACCESSED OVERLAY AREA.      00062190
                                     %      1  NEVER ACCESSED SAVE AREA.         00062200
                                     %      2  NEVER ACCESSED OVERLAY AREA WHICH 00062210
                                     %          WHICH IS ASSIGNED TO AUXMEM.     00062220
                                     %      5  INDICATES OVERLAY IS CURRENTLY IN 00062230
                                     %          PROCESS FOR THIS AREA            00062240
                                     %      6  INDICATES OLAY HAD IRRECOVERABLE 00062250
                                     %          ERROR WHEN OVERLAYING THIS AREA. 00062260
                                     %          THE NEXT ACCESS TO THE AREA WILL 00062270
                                     %          CAUSE THE PROGRAM TO BE TERMI= 00062280
                                     %          NATED.                          00062290
                                     %
                                     %          00062999
                                     %          00067000
                                     %          00067010
                                     %          00067020
                                     %          00067030
                                     %          00067040
                                     %          00067050
                                     %          00067060
                                     %          00067070
                                     %          00067080
                                     %          00067999
                                     %          02134300
                                     %          02134710
                                     %          02205475
                                     %          02216000
                                     %          02216010
                                     %          02216600
                                     %          02216610
                                     %          02434430
                                     %          02434435
                                     %          02639000
                                     %          03618800
                                     %          03618810
                                     %          03638500
                                     %          03638600
                                     %          05804200
                                     %          05811460
                                     %          05811470
                                     %          07086000
                                     %          07087000
                                     %          07095000
                                     %          07095100
                                     %          07097000
;
%
%      MISCELLANEOUS DEFINES
%
DEFINE
  CURBLKCNTR =      16 # %
  ,AITNDX    =      6 # %
  ,FTF       = 18:18:15 # %
  ,FTC       = 33:18:15 # %
  ,DELTA     =      11 # %
;

    T := GETSPACE(S-1, SPOUTMSGAREAV+64, 0) + 1;
M[MESSAGE-1],[AREATYPEF] := SPOUTMSGAREAV;
A:=TYPEDSPACE(15,SPOUTMSGAREAV);
    S := IF M[T],AREATYPEF = CODEAREAV THEN
        M[T+1],[CF] ELSE 0;%
    ELSE P(M[T-2],AREATYPEF,DUP) ≠ TYPE7INTAREAV AND
        P(XCH) ≠ TYPE13INTAREAV OR L = 0;
    TP:=M[TA]=TYPEDSPACE(513,MDUMPAREAV)]
        & 513[SIZE] & 5[21:45:3];%
    LBL := TYPEDSPACE(10,LABELAREAV);%
INPUTANK[STA],[FF]:=R:=(IF T1 GTR 0 THEN T1 ELSE
    TYPEDSPACE(32,OBJOINPUTAREAV))+2;
    LASTSEG[0],[FF] := (S:=TYPEDSPACE
        (32,CANDEINPUTAREAV))+2;
$ VOIDT
P(P1MIX) P1MIX:=0;
L:=GETSPACE(A,SCRATCHDIRAREAV,SCRATCHSAVE);
    INBUFF := GETSPACE(11,IOBUFFERAREAV,1)+2;%
    FIRSTCARD := GETSPACE(10,CONTROLCARDAREAV,1)+2;%
    ELSE BEGIN OUTBUFFOLD := OUTBUFF :=
        GETSPACE(60,IOBUFFERAREAV,1)+2;%
    H := SAVEARRAYDESC(30,DISKHEADERAREAV);%

```

```

SHEAT := P[M[F:=TYPEDSPACE(31,SHEETAREAV+64)]] & 30[SIZE];%07256400
SEGO := TYPEDSPACE(30,SEGZEROAREAV+64);% 07257400
H := CIDROW[R] := [M[S:=
GETSPACE(94,6IDROWAREAV+64,1)+2]] & 94 SIZE; 07433000
07433100
T:=GETSPACE(13,CONTROLCARDAREAV+64,0)+4; 07446000
SHEAT + [M[F:=TYPEDSPACE(31,SHEETAREAV+64)]]&30[SIZE];08274250
SEGO := TYPEDSPACE(30,SEGZEROAREAV+64);% 08275500
C:=TYPEDSPACE(5,MAINTBUFFAREAV);% 08385100
BEGIN R:=TYPEDSPACE(5,MAINTBUFFAREAV);% 08410000
S:= [M[TYPEDSPACE(31,SHEETAREAV)]] & 30[SIZE];% 08881000
DLNK:= [M[TYPEDSPACE(31,SHEETAREAV)]] & 30[SIZE];% 08930000
INTRNSC := [M[INTLOC:=GETSPACE(MAXINT+T17SIZE,INTARRAYAREAV,1)+2]]&
B:=(GETSPACE(91,IOBUFFERAREAV,1)+2) & 90[SIZE];% 09506000
12672500
LOGINFO:=SAVEARRAYDESC(20,LOGAREAV);% 12848500
NT1:=GETSPACE(5,MAINTBUFFAREAV+64,0)+2; 14411820
T:=GETSPACE(12,CONTROLCARDAREAV+64,0)+4;% 14533000
SEG := IF M[R].AREATYPEF = CODEAREAV THEN M[R+1].[CF] ELSE 0; 16853000
ELSE P[M[R=2].AREATYPEF,DUP) ≠ TYPE7INTAREAV AND P(XCH) ≠ 16854200
TYPE13INTAREAV) OR LOCN = 0; 16854300
BUFF := TYPEDSPACE(60,MEYINBUFFAREAV) + 1; 16954200
FH:= [M[F:=TYPEDSPACE(TEMP,DISKHEADERAREAV)]] & TEMP[SIZE];% 18285200
FH := [M[F:=TYPEDSPACE(30,DISKHEADERAREAV)]] & 30 SIZE; 18286000
STREAM(A,B,T:=T:=GETSPACE(10,CONTROLCARDAREAV+64,0)+4); 18438120
T:=GETSPACE(I+5,CONTROLCARDAREAV+64,0)+4;% 18520300
S := [M[TYPEDSPACE(31,SHEETAREAV)]] & 30[8:38:10];% 20026600
HDR := GETSPACE(30,DISKHEADERAREAV,1)+2; 20028700
FPB := TYPEDSPACE(SEGO[5] INX 1, FPBAREAV); 20049000
FB:=GETSPACE(SEGO[7].[CF]×ETRLNG,FPBAREAV,1)+2; 20049800
LBL:=ARRAYDESC(30,LBLEQNAREAV);% 20059100
LBL:=ARRAYDESC(30,LBLEQNAREAV);% 20089800
SEGO:=ARRAYDESC(30,SEGZEROAREAV);% 20110400
SINFO[MIX],[CF] := (STACKLOC := 20116100
GETSPACE(SEGO[3] INX S[2] INX 64, STACKPRTAREAV, 1)) + 2; 20116200
TRP[4]:= [M[T:=GETSPACE(SEGO[1].[CF],SEGDICTAREAV,1)+2]]; 20124900
STREAM(D:=DALOCROW[MIX]):=SAVEARRAYDESC(DALOC SIZE,DALOCROWAREAV));% 20127300
$ VOID 20127400
STREAM(D := UVSPACE := TYPEDSPACE(UVSIZE,UVROWAREAV)); 20156800
M[HDR=2] := (*P(DUP)) & JARROWAREAV AREATYPEF; % 20169700
STREAM(Q:=FSROW[MIX]):=SAVEARRAYDESC(4,FSAREAV));% 20183610
TRP[3]:= [M[GETSPACE(1,FPBAREAV,1)+2]] ELSE % 20187400
BEGIN CARD,[33:15] := TYPEDSPACE(13,CONTROLCARDAREAV)+2; 20600950
I:=GETSPACE(30,JARROWAREAV&MIX[CTF],1)+2; 21304000
I:=GETSPACE(UVSIZE,UVROWAREAV&MIX[CTF],1)+2; 21308000
SHEAT := [M[F:=TYPEDSPACE(31,SHEETAREAV+64)]] & 30[8:38:10];% 22069050
SEGO := TYPEDSPACE(30,SEGZEROAREAV+64);% 22069100
IF (MIX := LINK.AREAMIXF) = 0 THEN GO TO MCP; 22297000
IF P(LINK.AREATYPEF,DUP) = CODEAREAV OR P(XCH) = 22303000
TYPE13INTAREAV THEN GO TO CODE; 22303100
IF LINK.AREATYPEF = TYPE13INTAREAV THEN % TYPE 13 INTRINSIC 22356100
IF P(LINK.AREATYPEF,DUP) = TYPE7INTAREAV OR P(XCH) = 22386000
TYPE13INTAREAV THEN GO TO INTRINSIC; 22386050
IF LINK.AREATYPEF = DATAAREAV THEN % OVERLAYABLE MCP DATA 22386100
M[GETSPACE:=T]:= (*P(DUP))&TYPE[AREATYPEF]&MIX[AREAMIXF]; 24400000
BEGIN TMP:=GETSPACE(FPBPTR+ETRLNG,FPBAREAV,1)+2;% 28050800
HI:= [M[TYPEDSPACE(42,DISKHEADERAREAV)]] & 30[8:38:10];% 28070000
T:=GETSPACE(30,DISKHEADERAREAV,1)+2;% 28288000
TMP:=GETSPACE(12,CONTROLCARDAREAV+64,5)+4;% 28435000

```

```

LAB:=ARRAYDESC(15,LABELAREAV);% 28451800
FA:=TYPEDSPACE(TMP:=TEMP+(TEMP DIV 2)+2,DATAAREAV)+1;% 28452600
CCA:=SAVEARRAYDESC(30,ESPDISKAREAV);% 28455400
FA:=TYPEDSPACE((BUMPFA:=FASZ:=IF MAX > 128 THEN 128 ELSE MAX)+ 28456800
              (FASZ DIV 2)+2,DATAAREAV)+1;% 28457000
S:=ARRAYDESC(30,ESPDISKAREAV);% 28855000
BEGIN M[ALPHA+1]:=(CURLOC+GETSPACE(BSIZE+4,IOBUFFERAREAV,1)+2)+2; 37406000
      M[T1:=ALPHA-2]:=M OR (GETSPACE((T1:=M[T1],SIZE)+4, 38107000
                                LABELAREAV,1)+4) & T1[SIZE] & CNTLBITS[FTF];38107100
BEGIN NT3 := TYPEDSPACE(13,LABELAREAV)+2;% 38107300
      M[T1:=ALPHA-2]:=M OR (GETSPACE((T1:=M[T1],SIZE)+4, 38205000
                                LABELAREAV,1)+4) & T1[SIZE] & CNTLBITS[FTF];38205100
      SEGO:=M[TYPEDSPACE(62,SEGZEROAREAV)]&30[SIZE];38434000
IF COBOL>0 OR FIB[4],[7+1] THEN 39304000
  M[FIB INX NOT 1].AREATYPEF := COBOLFIBAREAV 39304500
ELSE 39304600
  M[ALPHA-7].AREATYPEF := ALGOLFIBAREAV; 39305000
  KEY := GETSPACE(5,MAINTBUFFAREAV+64,0)+2; 41312700
  KEY := GETSPACE(5,MAINTBUFFAREAV+64,0)+2; 41314000
  T1 := TYPEDSPACE(15,MAINTBUFFAREAV);% 41323130
  MLA := [M[A:=GETSPACE(33,MAINTBUFFAREAV,0)+3]] & 32[SIZE];% 41328600
  I:=(T1:=GETSPACE(J+2,INQUIRYBUFFAREAV,0)+1)+3 AND NOT 3; 44041000
  M[C:=J:=TYPEDSPACE(I,MCPTABLEAREAV)+T1:=0; 44153500
  J:=GETSPACE(Z,AVTABLEAREAV,1)+2; 44240840
  SCRATCHVEC:=M[GETSPACE(10,SCRATCHDIRAREAV,SCRATCHSAVE)+2]] 44241180
              & 10 [TOSIZE]; 44241185
              BEGIN 48052000
                P(NT4,BLOB,NT1,GETSPACE(NT1,STACKAREAV,3));48052100
$! BY JTC = MSA CENTRAL 99990000
$! DATE 03/17/76, UPDATE 11/05/76 99990100
$! THIS PATCH CAUSES THE TSSMCP TO TYPE MANY OF THE MEMORY AREAS 99990200
$! THAT WERE LEFT UNTYPED BEFORE, THIS PRIMARILY BENEFITS THE DUMP 99990300
$! ANALYZER. 99990400
$!*****99999999
$#PATCH NUMBER 156 FOR TSSMCP MARK XVI CONTAINS 5 CARDS.
      IF HEADER.[CF] GEQ 64 THEN FORGETSPACE(HEADER); 12561600
SVOIDT 12572000
SVOIDT 12573000
      P(1) 12573500
      ELSE 12574000
$! BY JTC = MSA CENTRAL
$! SOFTWARE FLASH #164 AND CORRECTION FLASH #190
$!*****
$#PATCH NUMBER 158 FOR TSSMCP CONTAINS 18 CARDS. 00000000
  ARRAY WORKERSTACK[*]; % DESC. TO OLDWIERDHAROLDS STACK. 00299500
  ARRAY ESPTAB[*]; REAL ESPCOUNT; % 00399000
      GETESPDISK := ((P(DUP).[CF]-ESPTAB.[CF])x8 06031000
  S := (ESPTAB.[CF]+S,[30+15]) & S[30+3]; % 06038000
  DEFINE HARRYSTA = WORKERSTACK[5]#, % STA 14344100
  I := W; T := P(.ESPTAB); FIX; % 44173200
  I := 100; T := P(.WORKERSTACK); FIX; % 44179100
  I := 0; 44179200
  FOR T := 1 STEP 1 UNTIL NUMSTACK DO 44179250
    BEGIN 44179300
      M[J] := I; % LINK TO PREVIOUS STACK IN Q. 44179350
      M[J+1] := WORDOFFEASE; % CLEAR STACK 44179400
      MOVE(STANDARDSTACK-2,J+1,J+2); 44179450

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```

I := J; % REMEMBER WHERE THIS STACK IS 44179500
J := J + STANDARDSTACK; % COMPUTE ADDRESS OF NEXT STAC 44179550
END; 44179600
STACKQ := I; % POINT TO FIRST STACK IN Q. 44179650
MOVE(99,I:=WORKERSTACK,[CF],I+1); %TO SPOT POSSIBLE OVER 44189600
S: DATE 3/19/76 99990000
S: BY JTC - MSA CENTRAL 99990100
S: 99990200
S: THIS PATCH CAUSES DESCRIPTORS TO BE BUILT FOR THE WORKERSTACK AND 99990300
S: ESPTAB TO HELP THE DUMP ANALYZER ANALYZE THE MCP SAVE AREAS. 99990400
S:*****99999999
S#PATCH NUMBER 159 FOR TSSMCP CONTAINS 25 CARDS
REAL PROCEDURE INPUTSCAN(MODE,SOURCE,DEST,NUM,FLAGS,SEQMODE); 03071000
VALUE NUM,FLAGS,SEQMODE; 03072000
REAL MODE,SOURCE,DEST,NUM,FLAGS,SEQMODE; 03073000
REAL PROCEDURE INPUTSCAN (MODE,SOURCE,DEST,NUM,FLAGS,SEQMODE); 03276800
VALUE NUM,FLAGS,SEQMODE; 03277000
REAL MODE,SOURCE,DEST,NUM,FLAGS,SEQMODE; 03277200
U:=(DEST.[30:3]&DEST[30:33:15])-(INPTSC.[30:3]&INPTSC[30:33:15]); 03290600
IF U=1 AND SEQMODE %U=1 WHEN ONLY "+" LEFT IN BUF., AND IF SEQMODE 03290700
THEN %TRUE, THEN USER BACKSPACED TO FRONT OF BUFFER. 03290800
BEGIN 03290810
STREAM (A:=0:DEST); 03290820
BEGIN DI:=DI-1; %MAKE INPUT LOOK LIKE A NULL LINE 03290830
DS:=2LIT" +"; % (SPACE) TO PREVENT CANDE FROM 03290840
A:=DI; %BELIEVING THIS IS END OF SEQ MODE 03290850
END; 03290860
P([DEST],STD); 03290870
GO AUT; 03290880
END; 03290890
INPUTSCAN:=U; 03290900
N1:=INPUTSCAN(MODE,SORC,A3,(M[A1].[FF])=X,[2:8],FLAGS,0); 03307000
N1:=INPUTSCAN(MODE,SORC,A3,M[A1].[FF],FLAGS,0); 03313400
DEFINE SEQMODE = IF STATAB.STATIONTYPE#TWX THEN FALSE 03614600
ELSE (LINEDISC[STA]=TWX AND SEQARRAY[STA]#0)#; 03614700
NUM:=NUM+INPUTSCAN(MODE,SOURCE,J,BUFSZ=T1,FLAGS,SEQMODE); 03618200
NUM:=NUM+INPUTSCAN(MODE,SOURCE,J,BUFSZ,FLAGS,SEQMODE); 03634000
S: BY DJZ-MSA CENTRAL
S: SOFTWARE FLASH #175 AND CORRECTION FLASH #185
S: SOFTWARE FLASH 200 CORRECTION
S:*****
S#PATCH NUMBER 160 FOR TSSMCP CONTAINS 12 CARDS.
BEGIN 06468000
IF P(0,RDS) GTR FENCE 06470000
SVOIDT 06471000
ELSE COMPLEXSLEEP((B OR REPLY[P1MIX] GTR 0 OR TERMSET(P1MIX))) 06472100
SVOIDT 06472501 06472200
IF JAR[P1MIX,9].SYSJOB# NEQ LIBMAINCODE THEN GO INITIATE; 06473100
EXIT: P(P&RCW[CTC],0,RDS,0,XCH,P&P[CTF],STF); 28101200
SVOIDT 37180675
IF [MEM[P1MIX,MLINK1]].[CF] GEQ FENCE THEN 37226100
SVOIDT 37226150
SVOIDT 37226500
SVOIDT 37227500
S: BY JTC, KFK - MSA CENTRAL, SOFTWARE FLASH 176
S:*****
S#PATCH NUMBER 161 FOR TSSMCP CONTAINS 1 CARD

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BOMB: IF DU=18 THEN FORGETIT;% 07231000
$: BY DJZ = MSA CENTRAL, SOFTWARE FLASH 177
$!*****
$#PATCH NUMBER 162 FOR TSSMCP CONTAINS 3 CARDS.
    IF (NT2:=P).[2:1] THEN %LEFT AT 12626500 12635500
SVOIDT 12638000
    BEGIN IF (IDD:=T.[9:24] DIV 5)≠0 THEN %SPACE FORWARD 12650500
$: BY DJZ = MSA CENTRAL, SOFTWARE FLASH 180
$!*****
$#PATCH NUMBER 163 FOR TSSMCP CONTAINS 3 CARDS.
    $ SET OMIT = PACKETS 20034060
    ELSE FORGETSPACE(HDR); 20034070
    $ POP OMIT 20034080
$: BY DJZ = MSA CENTRAL, SOFTWARE FLASH 183
$!*****
$#PATCH NUMBER 164 FOR TSSMCP CONTAINS 16 CARDS. 00000000
REAL ER1,ER2,ER3; LABEL ERSYS; 20511152
    ER1:=")+ ";% 20511175
    OR SYSTEMFILE(CMM[0],CMM[1]) THEN% 20511188
    BEGIN ERSYS: ER1:="SYSTEM "ER2:="FILE)+ " ; GO ERROR END; 20511190
    BEGIN ER1:="SAME FI"ER2:="LE)+ " ; GO ERROR END 20511303
    IF TYPE=USEV AND M[OPTN+2]<0 THEN% 20511312
    BEGIN ER1:="SECURIT"ER2:="Y FILE)"ER3:="+ " ; GO ERR END; 20511313
    BEGIN ER1:="INVALID"ER2:=" USER)+")%; 20511335
    ERR: FORGETSPACE(OPTN);% 20511340
    END ELSE IF OPTN=2 THEN GO ERSYS @ LINE 20511190 20511363
    ELSE IF OPTN=1 THEN BEGIN ER1:="IN USE)"ER2:="+ " END 20511364
    ELSE IF OPTN=0 THEN BEGIN ER1:="NOT ON "ER2:="DISK)+ " END; 20511365
    ERROR: 20511366
    STREAM(A:=[CMM[0]],ER:=[ER1],B:=(OPTN:=SPACE(10))); 20511370
    DS:=25 LIT " SECURITY MAINT IGNORED (" ; SI:=ER;% 20511400
    3(SI:=SI+1; DS:=7 CHR);% 20511405
$: BY DJZ = MSA CENTRAL (SUBMITTED BY S. KELLEY = NATAL UNIVERSITY) 99990000
$: DATE 05/12/76 99990100
$: THIS PATCH MAKES THE "SECURITY MAINT IGNORED" MESSAGE MORE 99990200
$: EXPLICIT BY ADDING ONE OF THE FOLLOWING REASONS TO THE MESSAGE: 99990300
$: 1) SYSTEM FILE 99990400
$: 2) SECURITY FILE 99990500
$: 3) INVALID USER 99990600
$: 4) IN USE 99990700
$: 5) NOT ON DISK 99990800
$: AND 6) SAME FILE. 99990900
$!*****99999999
$#PATCH NUMBER 165 FOR TSSMCP CONTAINS 1 CARD. 00000000
    AND ((MFID EQV "BADISK ") NEQ NOT 0) 28415250
$: BY DJZ = MSA CENTRAL (SUBMITTED BY S. KELLEY = NATAL UNIVERSITY) 99990000
$: DATE 05/13/76 99990100
$: THIS PATCH WILL PREVENT "BADISK" FILES FROM BEING DUMPED TO A 99990200
$: LIBRARY TAPE. PREVIOUSLY, IF THESE FILES WERE RE-LOADED, THEY 99990300
$: WERE ALLOCATED AS NORMAL FILES, WITH A VERY SMALL CHANCE OF 99990400
$: BEING PLACED IN THE PROPER SPACE. FOR DUMPING PURPOSES ONLY, 99990500
$: ALL "BADISK" FILES WILL NOW BE TREATED AS SYSTEM FILES. 99990600
$: NOTE THAT SITES SHOULD NOT ALLOW USER FILES TO BE CREATED WITH 99990700
$: "BADISK" <MFID>S, AS THESE ALSO WILL NOT BE DUMPED. 99990800
$!*****99999999
$#PATCH NUMBER 166 FOR TSSMCP CONTAINS 18 CARDS. 00000000
% .[13:1] FILE TO BE ADDED (NOT ON DISK) 28200061

```

```

MUSTADD      = DA.[13:1]#,
X*****
X CHECK IF FILE IS TO BE ADDED
X*****
X
IF ADDV THEN
IF NOT MUSTADD THEN
IF OU = 18 THEN% TAPE TO DISK
IF DIRECTORYSEARCH(=MFID,FID,5) NEQ 0% ALREADY ON DISK
THEN BEGIN
LBMESS(ABS(MFID),FID,-67,68,TINU[IU],SPOUTUNIT,LIBMSG);
IF DSED THEN ABORT;
GO NEXT;
END
ELSE BEGIN M(FAINFO+J).[13:1]=1; MUSTADD:=1 END;
IF MUSTADD THEN T:=0 ELSE% ADD FILE NOT ON DISK
"ON DISK", "+", % 68
$; BY DJZ = MSA CENTRAL (SUBMITTED BY S. KELLEY = NATAL UNIVERSITY)
$; DATE 05/13/76
$; THIS PATCH WILL PREVENT THE MCP FROM SCANNING DOWN A LIBRARY
$; DUMP TAPE TO FIND A FILE WHEN THE FILE BEING ADDED IS ALREADY
$; ON DISK. A NEW MESSAGE IS ALSO INTRODUCED. THIS WILL BE SENT
$; TO THE PACKET PAGE AND ALSO TO THE SPO IF LIBMSG IS SET. THE
$; FORMAT OF THE NEW MESSAGE IS:
$; .<MFID>/<FID> NOT COPIED (ON DISK), MT<UNIT>
$;*****
$#PATCH NUMBER 167 FOR TSSMCP CONTAINS 1 CARD.
IF KIND=7 AND FIB[13].[28:10]#ABS(COBOL) THEN GO FIND ELSE
$; DATE 6/23/76
$; BY JTC = MSA CENTRAL
$;
$; THIS PATCH FIXES OTHERFILEOPENOUT SO THAT COBOL68 PRINTER
$; BACK UP TAPES WILL HAVE CORRECTLY FORMATTED PRINT
$; FILE LABELS WRITTEN ON THEM.
$;*****
$#PATCH NUMBER 168 FOR TSSMCP CONTAINS 11 CARDS. TAPE PARITY
LABEL ERRORS,DISKERR,DS,X,SW,LP,DK,DX,DX1,DC,OK,L1;
SWITCH TYPE := OK,LP,OK,OK,DK,OK,OK,OK,OK;
X
X CHECK FOR A PARTIAL WORD BINARY READ WITH NO PARITY ERRORS.
X THIS IS ILLEGAL AND IS MARKED AS BEING A PARITY ERROR.
X
IF (R.[18:12] AND @4462) = @0440 THEN % BIN READ=NO PAR
IF R.[15:3] # ((8-R.[22:1]) AND 7) THEN % PART WD XFER
R.[28:1] := MOD3IOS; % MARK AS PARITY ERROR IF MOD III
SVOIDT 04167801
IF U LEQ 15 THEN % TAPE I/O
$; DATE 9/14/76
$; BY JTC = MSA CENTRAL
$;
$; THIS PATCH REWRITES THE CODE FOR HANDLING PARTIAL WORD TRANSFER
$; ON BINARY READS FROM TAPE. SINCE THIS IS ILLEGAL FOR THE B5700
$; SUCH I/O RESULTS ARE MARKED AS PARITY ERRORS. PREVIOUS TO THIS PATCH
$; SPACE REVERSE I/O S LOOKED LIKE PARTIAL WORD TRANSFERS AND THIS
$; CAUSED ONLINE/MAINT TAPE CONFIDENCE ROUTINES 1,2, AND 3 TO FAIL.
$; NOTE: SITES THAT READ NON-STANDARD TAPES THAT HAVE BINARY
$; PARITY AND PARTIAL WORD BLOCKS MAY WANT TO ELIMINATE THIS PATCH

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```

28208300
28270806
28270807
28270808
28270809
28270810
28270812
28270814
28270816
28270818
28270820
28270822
28270826
28270828
28270830
28281550
41493085
99990000
99990100
99990200
99990300
99990400
99990500
99990600
99990700
99999999
00000000
38272000
99990000
99990100
99990200
99990300
99990400
99990500
99990600
00000000
04125000
04128000
04129520
04129530
04129540
04129550
04129570
04129580
04129590
04167100
94129560
99990000
99990100
99990200
99990300
99990400
99990500
99990600
99990700
99990800
99990900

```

```

$! SINCE IT WILL CAUSE RETRIES TO BE DONE ON SUCH TAPES. 99991000
$!***** 99991100
$#PATCH NUMBER 169 FOR TSSMCP CONTAINS 4 CARDS.
  PPCPROCESS:=0;% 20602855
  IF UNITNO=32 THEN CIDROW[UNITNO-32],[3:5]:=0 ELSE% 20606900
  IF UNITNO=23 THEN READERA.[FF]:=0 ELSE% 20606910
  IF UNITNO=24 THEN READERB.[FF]:=0;% 20606920
$! BY DJZ - MSA CENTRAL
$! SOFTWARE FLASH 201
$!*****
$#PATCH NUMBER 170 FOR TSSMCP CONTAINS 1 CARDS 00000000
  BEGIN IF XLST=0 THEN XLST:=M[SPACE(XLSTSZ=30)]&30[8:38:10]; 20567005
$! DATE 9/17/76 99990000
$! BY JTC - MSA CENTRAL 99990100
$! 99990200
$! THIS PATCH PREVENTS EXTRA EXCEPTION LISTS FROM BUILDING UP IN 99990300
$! CORE WHEN PROCESSING REMOVE OR COPY CARDS WITH MULTIPLE 99990400
$! EXCEPTION LISTS. 99990500
$!***** 99990600
$#PATCH NUMBER 172 FOR TSSMCP CONTAINS 9 CARDS. 00000000
  ADECK + 0; FIRSTORSEC + 07108100
$ 07108999
$ 07109001
  BEGIN LABEL TRYAGAIN; 20289030
$ 20289330
  X:=6; M[BUF+17]:=0; 20289335
  :29: GO TO EXTERNAL; % 35 - SPECIAL INTERRUPT 46011500
  :30: GO TO EXTERNAL; % 36 - DKA READ CHECK 46012000
  :31: GO TO EXTERNAL; % 37 - DKB READ CHECK 46012500
$! BY DJZ - MSC DETROIT 99990000
$! DATE 11/29/76 99990100
$! THIS PATCH ... 99990200
$! 1) REMOVES SOME REDUNDANT CODE FROM PROCEDURE "COM23"; 99990300
$! 2) REMOVES UNNECESSARY LABEL IN PROCEDURE "PRINTTHECOVER"; 99990400
$! 3) PREVENTS SYSTEM HANG IN "DO UNTIL FALSE" LOOP WHEN DISK 99990500
$! READ CHECK IS DETECTED. THIS WAS ORIGINALLY INTRODUCED IN 99990600
$! TEMPORARY PATCH #202, MARK XIV SYSTEM RELEASE. 99990700
$!***** 99999999
$#PATCH NUMBER 173 FOR TSSMCP CONTAINS 2 CARDS. 00000000
% B 5 7 0 0 T S - M C P M A R K XVI.0.172 05/11/77 00001000
  "172" 00005040
$! BY DJZ - MSC DETROIT 99990000
$! DATE 05/11/77 99990100
$! THIS PATCH UPDATES THE MARK LEVELS IN THE SYMBOL FILE. 99990200
$!***** 99990300
$#PATCH NUMBER 201 FOR TSSMCP CONTAINS 005 CARDS 00000000
  IF U=30 THEN 04129100
  BEGIN M[@153+C]:=R; 04129200
  DCIOFINISH(R); 04129300
  END; 04129400
  IF (E:=(M[@153+C]:=R).[26:7])+(V:=T.[5:8]) NEQ 0 THEN 04130000
$! THIS CHANGE CAUSES THE RESULT DESCRIPTOR OF EACH I/O TO BE 00000002
$! STORED INTO M[@153+I/O CHANNEL NUMBER]. 00000002
$! 00000002
$!BY JCF 00000002
$!TR ... 00000002
$!DATE 3/6/73 00000002

```



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S1*****
$#PATCH NUMBER 202 FOR TSSMCP.XV2 CONTAINS 25 CARDS
, MEMTOG = TOGGLE.[43:1], MEMTOGMASK = @20# 00080500
IF [MEM[WAITSTORE1,0]].[CF]=0 THEN 00093110
    IF NOT MEMTOG THEN SLEEP([TOGGLE], MEMTOGMASK) ELSE ELSE 00093120
DEFINE STORED1(STORED1, STORED2) = IF [MEM[STORED1,0]].[CF]=0 THEN 00093400
    MEMTOG := STORED2 ELSE 00093410
    MEM[STORED1,0].[17:1] := STORED2#; 00093420
    STORED(0,0); 02396130
    STORED(0,1); 02396500
        STORED(0,0); 02434490
        STORED(0,1); 02434530
    BEGIN WAITSTORE(0); STORED(0,0); 09617000
        STORED(0,1); 09624000
    WAITSTORE(P1MIX); STORED(P1MIX,0); 18841400
    STORED(P1MIX,1); 18843500
WAITSTORE(P1MIX); STORED(P1MIX,0); 18843800
STORED(P1MIX,1); % FREE MEMORY TO ALLOW "ARTN" TO BE BROUGHT IN 18845000
    WAITSTORE(MIX); STORED(MIX,0); 20119300
    STORED(MIX,1); 20120300
        STORED(0,0); 21032000
        STORED(0,1); 21093000
    AGAIN: WAITSTORE(MIX); STORED(MIX,0); 24309000
        STORED(MIX,1); 24313000
    WAITSTORE(P1MIX); STORED(P1MIX,0); 29544000
    STORED(P1MIX,1); 29548000
    MEMTOG := 1; 44114100
S1 THIS PATCH ALLOWS CELL ZERO TO BE MONITORED FOR INVALID WRITES 90000004
S1 (AFTER INITIALIZE), IN ORDER TO ENABLE THIS, A NEW TOGGLE IS 90000005
S1 USED, MEMTOG, RATHER THAN M[0].[17:1], TO INTERLOCK MEMORY 90000010
S1 BELOW THE FENCE. WITH THIS PATCH REFERENCE TO STORED 90000015
S1 MUST BE MADE AS "STORED(MIX, TOG)", WHERE MIX IS THE MIX INDEX 90000020
S1 OF THE PROCESS AND TOG IS EITHER 0 OR 1. 90000025
S1 00000002
S1 BY AMS 00000002
S1 TR 1790 00000002
S1 DATE 3/6/73 00000002
S1*****
$#PATCH NUMBER 203 FOR TSSMCP.XV2 CONTAINS 29 CARDS
BOOLEAN OKSEGZEROWRITE; 00422100
    IF (P[IODESC].[3:5] 04004110
    $ SET OMIT = DKBNOFX 04004119
        , DUP) = @14 OR P(XCH 04004120
    $ POP OMIT 04004121
        ) = @6) AND 04004130
    NOT IODESC.[24:1] AND 04004140
    (((P[MIODESC].[CF], DUP) EQV 0) = NOT 0) OR 04004150
    ((P(XCH) EQV 32) = NOT 0) AND 04004155
    NOT OKSEGZEROWRITE THEN 04004160
        BYBY("SEGMENT ZERO OVERWRITE+", 23); 04004170
    OKSEGZEROWRITE := TRUE; 05665399
    OKSEGZEROWRITE := FALSE; 05665401
    OKSEGZEROWRITE := TRUE; 06059659
    OKSEGZEROWRITE := FALSE; 06059661
    OKSEGZEROWRITE := TRUE; 09645999
    OKSEGZEROWRITE := FALSE; 09656001
    OKSEGZEROWRITE := TRUE; 09682609

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OKSEGZEROWRITE:=FALSE;	09682611
OKSEGZEROWRITE:=TRUE;	40249400
OKSEGZEROWRITE:=FALSE;	40262100
OKSEGZEROWRITE:=TRUE;	42600919
OKSEGZEROWRITE:=FALSE;	42600921
OKSEGZEROWRITE:=TRUE;	42713949
OKSEGZEROWRITE:=FALSE;	42713951
OKSEGZEROWRITE:=TRUE;	42730999
OKSEGZEROWRITE:=FALSE;	42731001
OKSEGZEROWRITE:=TRUE;	44411399
OKSEGZEROWRITE:=FALSE;	44411401
\$:THIS CHANGE IS PROVIDED FOR DEBUGGING PURPOSES AND CAUSES THE MCP	44419421
\$:TO HANG IN A "DO UNTIL FALSE" LOOP WHENEVER DISK SEGMENT ZERO IS	44419423
\$:ABOUT TO BE UNEXPECTEDLY OVERWRITTEN.	44419425
\$:	00000002
\$:BY JCF	00000002
\$:TR 1766	00000002
\$:DATE 3/6/73	00000002
\$:*****	*****
\$#PATCH NUMBER 301 FOR TSSMCP.XV2 CONTAINS 3 CARDS	
IF MODE = (MODE=0) AND BLEN = 20 THEN	38107610
SAVEWORD = SAVEWORD OR TWO(U);	38107620
CNTCTL = DIREC = 0;	38107700
\$: THIS PATCH ALLOWS THE READING OF PURE BINARY CARD INPUT,	90000015
\$: IF THE FILE IS DECLARED AS ALPHA WITH A BUFFER LENGTH	90000020
\$: OF 20 WORDS, ALSO THE CARD READER WILL BE MARKED SAVED	90000025
\$: WHEN THE PROGRAM CLOSES THE FILE, CARE SHOULD BE TAKEN	
\$: WHEN USING THIS FEATURE SINCE A "QEND" CARD WILL NOT	
\$: BE SEEN BY THE SYSTEM, IT IS THE PROGRAMS RESPONSIBILITY	
\$: TO DETECT WHEN THE END OF THE FILE HAS OCCURRED.	
\$:	
\$:BY JCF	
\$:DATE 3/6/73	00000002
\$:*****	*****
\$#PATCH NUMBER 302 FOR TSSMCP CONTAINS 049 CARDS	00000000
REAL RESULT = 4;	03292300
BOOLEAN ZEROTIMEOUT;	03296250
ZEROTIMEOUT=N.[32:1];	03296300
N.[32:1]=0;	03296350
IF ZEROTIMEOUT THEN	03297410
BEGIN	03297415
RESULT:=2;	03297420
STREAM(DI=A.[CF]);	03297425
DS:=8 LIT "TIME3 ";	03297430
GO TO RETURN;	03297435
END;	03297440
STREAM(TI=((("END")&(12)[24:42:6]):A2));	03307100
BEGIN SI:=A2; DI:=LOC T; DI:=DI+4;	03307110
IF 4 SC NEG DC THEN TALLY:=1;	03307120
TI=TALLY;	03307130
END;	03307140
RESULT:=POLISH;	03307150
GO TO RETURN;	03317500
IF PAPER TAPE THEN	03624400
BEGIN STREAM(TI=((("END"),SOURCE));	03624401
BEGIN SI:=LOC T; DI:=SOURCE;	03624402
SI:=SI+5; DI:=DI+1;	03624403

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                IF 3 SC=DC THEN                                03624404
                BEGIN DI:=DI-3; DS:=3 LIT " "; END;           03624405
            END;                                              03624406
            FLAGS:=4;                                         03624407
        END ELSE                                             03624408
        BEGIN STREAM(T:="END");SOURCE);                     03624410
            BEGIN SI:=SOURCE; DI:=LOC T;                     03624420
                SI:=SI+1; DI:=DI+5;                           03624430
                IF 3 SC NEQ DC THEN TALLY:=1;                 03624440
                T:=TALLY;                                       03624450
            END;                                              03624460
            IF POLISH THEN GO TO CE;                            03624470
        END;                                                 03624480
        BEGIN STREAM(SOURCE,KIT:=PAPERTAPE);                 03624600
            IF SC=MARK THEN                                    03625300
                BEGIN DI:=LOC K; DS:=3 LIT "END";            03625310
                    SI:=SI+1; DI:=DI-3;                       03625320
                    IF 3 SC=DC THEN                            03625330
                        BEGIN TALLY:=2; K:=SI; DI:=K;         03625331
                            T(DI:=DI-3);                       03625332
                                DS:=3 LIT " ";                 03625333
                            END ELSE TALLY:=1;                 03625334
                        END;                                     03625340
                    R:=POLISH;                                  03625600
                    FLAGS:=IF R THEN 4 ELSE                     03625610
                        IF ((R=2) AND PAPERTAPE) THEN 4 ELSE   03625620
                        IF ((R=2) AND FLAGS) THEN 4 ELSE FLAGS; 03625630
                $! THIS PATCH IMPLEMENTS THE EOF BRANCH IF "QEND" IS TYPED 00000002
                $! TO A REMOTE JOB AS INPUT.                     00000002
                $! ALSO THE PARITY LABEL WILL BE TAKEN IF DATA IS NOT PRESENT AND A ZERO 00000002
                $! TIME OUT WAS SPECIFIED.                       00000002
                $!                                               00000002
                $! BY JCF                                         00000002
                $! TR .....                                       00000002
                $! DATE 3/6/73                                     00000002
                $# PATCH NUMBER 401 FOR TSSMCP.XVI.00 CONTAINS 01 CARDS.FIVE MINUTE SLEEP LIMIT.
                TIMELIMITMAX + 3600 * S + 18000 ; S+0; X401=GRK 22013130
                $!
                $! THIS PATCH INCREASES THE MAXIMUM SLEEP TIME ABOVE THE FENCE FROM
                $! 15 SECONDS TO FIVE MINUTES PLUS ONE MINUTE FOR EACH ACTIVE JOB.
                $! FAR TOO MANY JOBS GET KILLED AT 15 SECS THAN IS REASONABLE.
                $!
                $! G.R.KENNEDY 25FEB76. BROCK U. PATCH 401
                $!*****
                $# PATCH NUMBER 403 FOR TSSMCP.XVI.00 CONTAINS 01 CARDS.PREVENT FLAG BITS ON CM.
                STREAM(BASE); BEGIN 3(DS+LIT"0"); DI+DI+7); END; X403=GRK 09680450
                $!
                $! THIS PATCH PREVENTS SYSTEM HANGS CAUSED BY GARBAGE IN SEGMENT ZERO
                $! IN PROCEDURE CHANGE_MCP.
                $! THE CURRENT MCP NAME(S) AND BASE DISK ADDRESS MAY HAVE THE FLAG BIT
                $! ON (IT HAPPENED AT LEASE ONCE).
                $!
                $! G.R.KENNEDY 17FEB76. BROCK U. PATCH 403
                $!*****
                $# PATCH NUMBER 407 FOR TSSMCP.XVI.00 CONTAINS 01 CARDS.CONTROLCARD SCREWUP, GRK
                P(DIRECTORYSEARCH(NABS(CMM[0]),IF CMM[0]<0 THEN "DISK " ELSE 20606865
                $!

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```

$! THIS PATCH FIXES A PROBLEM IN CONTROL CARD WHICH CAUSED THE MCP SAVE
$! CORE TO GRADUALLY INCREASE. THE PROBLEM WAS WITH CONTROL CARD
$! ERRORS ON COMPILE CARDS. AT "INCSC" THERE WAS A CALL ON
$! DIRECTORYSEARCH WITH -CMM[0] SO AS TO NOT RETURN THE FILE HEADER.
$! BUT - COMPILERS HAVE CMM[0] NEGATIVE, SO ...
$! RECEIVED FROM DREXEL UNIVERSITY BY PHONE ON 16JUL75.

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$! G.R.KENNEDY 10OCT75. BROCK U. PATCH 407

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$!*****
$# PATCH NUMBER 410 FOR TSSMCP.XVI.00 CONTAINS 02 CARDS.LET "SD" OR "CL" WORK,
    JAR[MIX,6],[1:1]+((TYPE=9) OR (TYPE=19)); %DS=8,SD=9,CL=19 %410 16212100
X**% JAR[MIX,6],[1:1]+((TYPE=9) OR (TYPE=19)); %DS=8,SD=9,CL=19 %410 16216000

```

```

$! THIS PATCH TO KEYING SHOULD ALLOW "SD" OR "CL" TO SAVE PSEUDO-DECKS,
$! WE WILL SETUP THE "SAVE-THE-DECK" BIT BEFORE CALLING TERMINATE, AS
$! IN THE DCMCP.

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$! G.R.KENNEDY 13JUL76. BROCK U. PATCH 410

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$!*****
$# PATCH NUMBER 504 FOR TSSMCP.XVI.00 CONTAINS 22 CARDS.EOJ JOB STATISTICS.GRK.
    REAL CPUID=+14; %504=GRK 14351306
    P(0); %ZERO OUT CPUID %504=GRK 14355060
    CPUID+GETSPACE(10,0,1)+2; %504=GRK 14413020
    M[CPUID+2]+VECTOR[0]; %JOB PREFIX %504=GRK 14413030
    M[CPUID+3]+VECTOR[1]; %JOB SUFFIX %504=GRK 14413040
    M[CPUID+4]+I; %JOB MIX INDEX %504=GRK 14413050
    M[CPUID+5]+((S[1]+NEXTMOM)+30)DIV 60; %CPU TIME %504=GRK 14413060
    M[CPUID+6]+((S[2]+VECTOR[4]+IDTIME[1])+30)DIV 60; %504=GRK 14413070
    M[CPUID+7]+S[3]+(LC[1]-SC[1])*CHUNKZIZE+CHUNKZIZE; %504 14413080
    STREAM(I,CPUID); %504=GRK 14430031
    BEGIN DS+5LIT" FOR "; SI+CPUID; SI+SI+17; %504=GRK 14430032
    DS+7CHR; DS+LIT"/"; SI+SI+1; DS+7CHR; %504=GRK 14430033
    DS+LIT"="; DS+2DEC; I+DI; DI+DI-2; %504=GRK 14430034
    DS+5LIT"IPST="; DS+5DEC; %504=GRK 14430035
    I+DI; DI+DI-5; DS+4FILL; DI+I; %504=GRK 14430036
    DS+5LIT",IOT="; DS+5DEC; I+DI; DI+DI-5; %504=GRK 14430037
    DS+4FILL; DI+I; DS+6LIT",CORE="; %504=GRK 14430038
    DS+5DEC; I+DI; DI+DI-5; DS+4FILL; %504=GRK 14430039
    DI+I; DS+LIT"+"; %504=GRK 14430040
    END STREAM; %504=GRK 14430041
    SPOUTER(CPUID,UNITNO,64); %504=GRK 14430042
    IF UNITNO#0 THEN %504=GRK 14430043

```

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$! THIS PATCH PROVIDES THE EOJ JOB STATISTICS MESSAGE SIMILAR TO
$! THE DCMCP MESSAGE. IN ADDITION, MAXIMUM CORE USAGE IS PROVIDED.

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$! SPOUTER DOCUMENTATION SPOUTER(MESSAGE,UNITNO,TYPE)
$! =====

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$! DEFINES : SPOUT(MESSAGE) = SPOUTER(MESSAGE,0,1)
$! ----- SPOUTIT(MESSAGE,TYPE) = SPOUTER(MESSAGE,0,TYPE)

```

```

$! NOTES : --CONDITION-- MESSAGE DISPATCHED C O M M E N T S
$! ----- UNITNO TYPE SPO PACKET LOG -----
$! N/A 0 N Y Y
$! N/A 64 N Y N FOR PACKET PAGE ONLY
$! N/A NEG. N Y N

```

```

S:           N/A   TRUE   Y       Y       Y
S:
S: G.R.KENNEDY  10JUN76.  BROCK U.  PATCH 504
S: THIS PATCH IS NEEDED BY PATCH 509
S:*****
S# PATCH 508 FOR TSSMCP.XV.3 CONTAINS 4 CARDS.  PREVENT FILEHOLD FOR "CHANGE"
S: THIS REMOVES A POTENTIAL INVALID LINK PROBLEM IN PROCEDURE LIBCC WHICH
S: WOULD OCCUR IF A FILE WERE REMOVED WHILE IN THE PROCESS OF BEING
S: A) REMOVED OR B) CHANGED.
S: THIS ALSO PREVENTS A FILE HOLD SITUATION FROM OCCURRING WHEN A CHANGE
S: COMMAND IS ENTERED FROM A REMOTE TERMINAL.
S: NATAL U.  PATCH 508
          IF T GEQ 64 THEN
          T=DIRECTORYSEARCH(CMM[0],CMM[1]&(P(UNITNO,DUP)=25 OR
          P(XCH)=30)[1:47:1],4); END;
          IF T GEQ 64 THEN
20574917
20577826
20577827
20577828
S:*****
S# PATCH NUMBER 509 FOR TSSMCP.XVI.00 CONTAINS 17 CARDS. PRNPBT/LDCNTRL BOJ/EOJ
          IF P THEN MAKELOG(MESSAGE,ABS(TYPE));
          END; IF TYPE LSS 0 THEN TYPE=64;
          SPOUTIT(LOGINFO,
          64);
          SPOUTIT(VECTOR INX 0,
          IF NOT ( (M[CPUID+3] EQV "DISK ")=NOT 0 AND
          (M[CPUID+2] EQV "PRNPBT ")=NOT 0 OR
          (M[CPUID+2] EQV "LDCNTRL")=NOT 0))
          THEN ((LINK OR CANDYMESS) AND EOJMESS
          AND (NOT JAR9).[2:1] OR EOJK)
          ELSE -EOJK);
          SPOUTER(T,UNITNO,
          IF NOT ( (JAR[MIX,1] EQV "DISK ")=NOT 0 AND
          (JAR[MIX,0] EQV "PRNPBT ")=NOT 0 OR
          (JAR[MIX,0] EQV "LDCNTRL")=NOT 0) )
          THEN ((NOT S[0]).[2:1] OR CANDYMESS)
          AND BOJMESS AND I OR BOJK) ELSE -BOJK);
20574917
20577826
20577827
20577828
%509=GRK 02134000
%509=GRK 02134005
%509=GRK 12704000
%509=GRK 12704100
%509=GRK 14430000
%509=GRK 14430002
%509=GRK 14430004
%509=GRK 14430006
%509=GRK 14430008
%509=GRK 14430010
%509=GRK 14430012
%509=GRK 20104200
%509=GRK 20104300
%509=GRK 20104310
%509=GRK 20104320
%509=GRK 20104330
%509=GRK 20104340
S:
S: THIS PATCH SUPPRESSES ALL "BOJ" AND "EOJ" SPO MESSAGES FOR
S: "PRNPBT/DISK" AND "LDCNTRL/DISK".  THIS SHOULD HELP ELIMINATE
S: SPO "CLUTTER".
S: NOTE THAT SPOUTER HAS BEEN MODIFIED TO LOG NEGATIVE MESSAGE TYPES
S: BUT NOT SPOUT THEM (SIMILAR TO TYPE 64 - BUT TYPE IS RETAINED).
S:
S: G.R.KENNEDY  31MAY76.  BROCK U.  PATCH 509
S: THIS PATCH USES VARIABLE CPUID WHICH IS DEFINED IN PATCH 504
S: CORRECTED TO INCLUDE BOJMESS BY DR, UCSC
S: SEE ALSO DREXEL U.  PATCH 716
S:*****
S# PATCH 510 FOR TSSMCP.XV.3 CONTAINS 2 CARDS.  INITIALIZE TYPED PROCEDURES
S: THIS PATCH CORRECTS AN ERROR INTRODUCED BY PATCH NUMBER 24 TO MCP.XV
S: WHERE THE VARIABLE PROCVAL WAS NOT INITIALIZED IN THE PROCEDURES
S: "ACESBIT" AND "CCCOMPILE".  WHEN RETURNING FROM THE PROCEDURES THE
S: VALUE OF THE TYPED PROCEDURES WAS TAKEN FROM THE LAST VALUE OF
S: PROCVAL.  THIS CAUSED ODD ERRORS,  E.G. THE CARDS:
S: Q LOAD FROM XYTAPE ANY/NAME
S: Q COMPILE PROG/NAME FORTRAN
S: WOULD RESULT IN "CONTROL CARD ERROR AT FORTRAN".  THE TYPED
S: PROCEDURES ARE NOW INITIALIZED.  NOTE:- ACESBIT NOW CCSET

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S: NATAL U. PATCH 510
  CCCOMPILE+0;
  CCSET+0;
  20584340
  20711100
S:*****
S# PATCH 511 FOR TSSMCP.XV.3 CONTAINS 4 CARDS. "PC" WITH 65 JOBS ON DISK
S: THIS IS TO FIX THE CASE WHERE THERE ARE 65 JOBS ON DISK AND A "PC" IS
S: DONE. PRIOR TO THIS THE MESSAGE WOULD COME OUT AS:- 65 JOB, #NNNN
S: WHERE "NNNN" WAS THE NUMBER OF THE LAST DECK ON DISK.
S: NATAL U. PATCH 511
      SI+LOC T1;
      IF SC#0 THEN GO TO AQ
      ELSE SI+SI+1;
      AQ: BEGIN DS+3 LIT "S, ";
      07295100
      07295102
      07295104
      07295160
S:*****
S# PATCH 512 FOR TSSMCP.XV.3 CONTAINS 7 CARDS. ERROR PROGRAM PARAM CARDS
S: THIS PATCH REARRANGES SOME CODING IN PROCEDURE PPC FOR CLARITY AND
S: GENERATES A CONTROL CARD ERROR FOR IDENTIFIERS ON PROGRAM PARAMETER
S: CARDS WHICH ARE UNDEFINED.
S: NATAL U. PATCH 512
      ELSE IF TYPE=COREV THEN
      BEGIN X[20] + TPNO DIV 64;
      DO UNTIL (IOD + SCAN)=MAXV OR IOD=PERIOD;
      IF IOD=MAXV THEN P([X[20]],IOR) ELSE GO TO DOWN;
      END
      ELSE IF TYPE>PRIOR AND TYPE<SAVEV THEN
      X[18+TYPE=PRIOR]+TPNO ELSE GO TO ERROR;
      20504500
      20505000
      20507000
      20507100
      20507200
      20507300
      20507400
S:*****
S# PATCH 517 FOR TSSMCP CONTAINS 3 CARDS. OVERLAY DISK SPACE USED UP
S: WHEN A PROGRAM HAS EXCEEDED ITS OVERLAY DISK SPACE, THIS PATCH WILL
S: CAUSE THE MCP TO ISSUE THE MESSAGE "ARRAY OLAY SPACE USED UP" WHEN
S: DS=ING THE PROGRAM, INSTEAD OF "INVALID ARRAY SIZE IDN". THE LATTER
S: MESSAGE IS MISLEADING.
S: BY STEVE KELLEY, REQUESTED BY NATAL U. MAY, 1974
S: NATAL U. PATCH 517
S: MODIFIED FOR TSSMCP BY DR. UCSC JAN. 17, 1977
      TERMINATE (MIX& 99[CTF]);
      "BARRAY ", "8OLAY S", X 99
      "SPACE U", "6SED UP", X
      06411010
      41445700
      41445800
S:*****
S# PATCH NUMBER 519 FOR TSSMCP.XVI.00 CONTAINS 01 CARDS.ENABLE "FILE IN USE" OK.
      BEGIN T+VWY&VOK[36:42:6]&(VIFXA.[3:1])[30:42:6]; X519=GRK 18025000
S:
S: THIS PATCH ENABLES "#FIL IN USE" SITUATIONS TO BE "OK=ED".
S: PREVIOUSLY (EXCEPT FOR LIBMAIN) THE ONLY ALTERNATIVE WAS "DS".
S:
S: G.R.KENNEDY 30JAN76. BROCK U. PATCH 519
S: SEE ALSO UCSC PATCH 815
S:*****
S# PATCH 521 FOR TSSMCP.XV.3 CONTAINS 17 CARDS. FIX PROCEDURE "CCSET"
S: THIS PATCH FIXES THE MESS THAT PROCEDURE CCSET IS IN.
S: THE PROBLEMS FIXED ARE:
S: A) FILE HEADERS OF ALL FILES REFERENCED BY THIS PROCEDURE ARE LEFT
S: IN CORE.
S: B) DIRECTORY WAS BEING UNLOCKED IN MANY CASES WHEN IT WAS NOT LOCKED
S: BY THIS PROCEDURE.
S: C) DISK HEADER WAS BEING WRITTEN BACK UNALTERED AT LINE 20739000
S: INSTEAD OF A FORGETSPACE ON THE HEADER.

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$ NATAL U. PATCH 521
    BEGIN T+2; GO TO L1; END;
    BEGIN FORGETSPACE(T); T+1; GO SKIP; END;
20730000
20739000
$ VOIDT
20739100
$ VOIDT
20739200
    ELSE BEGIN
20769000
$ SET OMIT = SHAREDISK
    UNLOCKDIRECTORY;
20769100
20769200
$ POP OMIT
    LBMESS(CMM[2],CMM[3],-(11+TOG),41,0,SPOUTUNIT,1);
20769300
    END;
20769400
    FORGETSPACE(T);
20769500
    ELSE BEGIN
20769600
$ SET OMIT = SHAREDISK
    UNLOCKDIRECTORY;
20771000
20771010
$ POP OMIT
20771020
    END;
20771030
20772050
$ VOIDT 20772301
20772100
$!*****
$# PATCH 523 FOR TSSMCP.XV.3 CONTAINS 1 CARD. "RESERVE DISK REMOVED" SPO ONLY
$ THIS PATCH MAKES THE "*** RESERVE DISK REMOVED" MESSAGE GO TO THE SPO
$ ONLY. PREVIOUSLY IT ALSO WENT TO THE MESSAGE PAGE FOR THE JOB.
$ NATAL U. PATCH 523
    SPOUTER(Z,25,(NOT LIBMSG) AND 1);
06353660
$!*****
$# PATCH 527 FOR TSSMCP CONTAINS 3 CARDS. FIXES TO "SET" AND "RESET"
$ THIS WILL ALLOW ONE TO ENTER A "SET" OR "RESET" CONTROL CARD FROM
$ THE SPO AFTER A CONTROL CARD ERROR ON THE LAST INFORMATION ENTERED
$ FROM THE SPO. PRIOR TO THIS, EVEN THOUGH THE CORRECT INFORMATION WAS
$ ENTERED FOR A SET OR RESET CONTROL CARD, THE FIRST WORD WOULD NOT BE
$ RECOGNIZED, RESULTING IN A FURTHER CONTROL CARD ERROR.
$ THIS WILL ALSO FIX THE CASE WHERE A SET OR RESET CONTROL CARD
$ FOLLOWED AN EXECUTE CARD. THE SET OR RESET WAS BEING TAKEN AS A
$ PROGRAM PARAMETER CARD.
$ NATAL U. PATCH 527
$ MODIFIED FOR TSSMCP BY DR. UCSC JAN. 17, 1977
CONTROLA: IF (T < FILEV OR T > COBOL) AND ACCUM[0] # CMLR THEN
20604300
    IF T GEQ UNLOCKV AND T LEQ RESETV THEN GO TO FINIS
20604350
    IF (T#PACKET) AND (T$RESETV) AND (T#RUNV) THEN
20608078
$!*****
$# PATCH 528 FOR TSSMCP CONTAINS 1 CARD. TRY DISK SPACE AFTER RESERVES REMOVE
$ THIS CAUSES ANOTHER ATTEMPT TO GET DISK SPACE AFTER RESERVE DISK IS
$ REMOVED INSTEAD OF SPOUTING NO USER DISK AND FORCING THE OPERATOR TO
$ DO AN "OK" FOR THE JOB.
$ NATAL U. PATCH 528
$ MODIFIED FOR TSSMCP BY DR. UCSC JAN. 17, 1977
    FORGETSPACE(BUFF); P(XIT);
06353675
$!*****
$# PATCH 534 FOR TSSMCP CONTAINS 3 CARDS. FIX "XT" & "CT" FOR *N & "<EMPTY>"
$ THIS PATCH CORRECTS PROCEDURE "TIMERELAXER" SO THAT THE INPUT
$ COMMANDS "XT" AND "CT" WORK CORRECTLY. PREVIOUSLY IF THE CHANGES TO
$ THE TIME ESTIMATES WERE OF THE FORM *N THEN AN INV KBD RESULTED.
$ THIS WAS BECAUSE AFTER FINDING THE * , SI WAS NOT INCREMENTED TO SKIP
$ OVER IT.
$ THIS ALSO FIXES THE CASE WHERE THE IOT IS OF THE FORM "<EMPTY>".
$ PREVIOUSLY, THIS WOULD ALSO HAVE GIVEN AN "INV KBD".
$ NATAL U. PATCH 534

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IF SC=" " THEN GO L1; END; 08739000
IF SC="*" THEN BEGIN SI+SI+1; GO L5; END; 08739500
IF SC="+ " THEN BEGIN TALLY+1; GO EXIT; END; 08749500
$!*****
$# PATCH 535 FOR TSSMCP.XV.3 CONTAINS 23 CARDS. FIX PROCEDURE CHANGE OPTION
$! THIS PATCH FIXES SOME BAD CODING IN PROCEDURE CHANGE OPTION WHERE THE
$! SCAN MAY GO PAST THE END OF THE INPUT BUFFER. IT IS A RE-WRITE OF
$! THE SCAN PORTION. IT ALSO MAKES THE USE OF THE WORD "USE" OR "U"
$! OPTIONAL IN THE SO OR RO WITH THE OPTION MNEMONIC (AS WITH THE OPTION
$! NUMBER).
$! NATAL U. PATCH 535
LO: SI+BUFF; 08634000
L1: IF SC=" " THEN BEGIN SI+SI+1; GO TO L1; END; 08635000
IF SC<"0" THEN 08636000
IF SC>"+" THEN 08637000
BEGIN TALLY+0; T+TALLY; DI+LOC T; 08638000
8(IF SC=" " THEN JUMP OUT ELSE 08639000
IF SC="*" THEN JUMP OUT ELSE 08640000
IF SC>"0" THEN JUMP OUT ELSE DS+CHR); 08641000
BUFF+SI; SI+OPTER; 08642000
63(DI+LOC T; 08643000
IF 8 SC=DC THEN JUMP OUT TO L2 ELSE 08644000
IF SC="*" THEN JUMP OUT TO L0 ELSE TALLY+TALLY+1); 08645000
GO TO L3; 08646000
L2: IF SC="*" THEN GO TO L0; 08647000
END ELSE 08648000
L3: TALLY+48 ELSE 08649000
BEGIN DI+LOC T; SI+SI+1; 08650000
IF SC<"0" THEN BEGIN SI+SI-1; DS+1 OCT; END 08651000
ELSE BEGIN SI+SI-1; DS+2 OCT; END; 08652000
TALLY+47; T(TALLY+TALLY+63); 08653000
END; 08654000
T+TALLY; SI+LOC T; DI+R; DS+WDS; 08655000
08656000
$ VOIDT
$!*****
$# PATCH 538 FOR TSSMCP.XV.3 CONTAINS 2 CARDS. FIX TIMING PROBLEM WITH PURGE
$! THIS PATCH CORRECTS A TIMING PROBLEM WITH A PROGRAMMATIC PURGE OF A
$! TAPE FILE. THE PURGE IS HANDLED BY AN INDEPENDENT RUNNER WHICH HAS
$! TO WAIT UNTIL THE TAPE HAS REWOUND. IF A PROGRAM CLOSES FILE "A/B"
$! WITH PURGE AND THEN TRIES TO OPEN FILE "A/B", IF THE PURGE HAS NOT
$! OCCURRED, IT MAY TRY TO GRAB THAT UNIT (SEE FINDOUTPUT @ 37027000).
$! THE PRNTABLE STILL CONTAINS THE POINTER TO THE TOP I/O DESCRIPTOR,
$! THE SPACE FOR WHICH HAS ALREADY BEEN FORGOTTEN, SO THAT IT MAY PICK
$! UP GARBAGE. THIS IS FIXED BY SETTING THE MIX INDEX OF THE PROGRAM
$! ASSIGNED TO THE UNIT TO ZERO IN THE RDCTABLE BEFORE STARTING THE
$! INDEPENDENT RUNNER TO PURGE THE TAPE.
$! NATAL U. PATCH 538
BEGIN RDCTABLE[U],[8:6]+0; 38788500
FORK(P,C,PURGEIT),U,-2,128,1) END ELSE SETNOTINUSE(U,0); 38789000
$!*****
$# PATCH 539 FOR TSSMCP.XV.3 CONTAINS 2 CARDS. PURGE OF TAPE AFTER CLLP*
$! THIS PATCH CORRECTS THE CLLP* WHEN PRINTING FROM A BACKUP TAPE WITH A
$! W/RING. THE TAPE IS NOW REWOUND AND PURGED CORRECTLY. PREVIOUSLY,
$! THE PURGE DID NOT TAKE PLACE. PRIOR TO THIS PATCH, PRNPBT/DISK
$! REWOUND THE TAPE AND STARTED AN INDEPENDENT RUNNER (PURGEIT) TO DO
$! THE PURGE. TERMINALMESSAGEA VIA UNHOOKUE FOUND THE TAPE IN USE BY
$! PRNPBT/DISK FROM RDCTABLE[I],[8:6] AND SET THE UNIT NOT READY IN

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S: LABELTABLE (=0114), WHEN THE REWIND WAS COMPLETE, STATUS FINDS THE
S: TAPE NOT READY AND FORGETS THE PURGE, LEAVING PURGEIT UNLINKED IN
S: CORE WAITING ON AN I/O COMPLETE. (UNIT SAYS NO I/O-S BUT IOQUE SHOWS
S: I/O-S FOR WHICH THE SPACE HAS NOT BEEN RETURNED).
S: NATAL U. PATCH 539
      BEGIN RDCYABLE[UNIT],[8:6]+0)          12528400
      END                                     12528600

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S:*****
S# PATCH 540 FOR TSSMCP CONTAINS 1 CARD. FIX "IL" FOR "#NO FIL ON DISK"
S: THIS PATCH CORRECTS THE RESULT OF AN "IL" INPUT MESSAGE IN REPLY TO
S: A "#NO FIL ON DISK" CONDITION. PREVIOUSLY, IF AN "ILCD*" WAS INPUT,
S: A SYSTEM HANG RESULTED. THIS WAS BECAUSE THE TEST WAS FOR AN ACTUAL
S: UNIT RATHER THAN ALL UNITS.
S: NATAL U. PATCH 540
S: MODIFIED TO USE MAGIC NUMBER 35, BECAUSE TSSMCP DOES NOT HAVE
S: PSEUDOMAXT. OBSERVE ON LINE 00277000 OF TSSMCP THAT TINU[35] = DATA
S: FOR THE LAST PSEUDO READER. BY DR, UCSC JAN. 17, 1977
      IF (SH+T2+REPLY[P1MIX],[FF]) > 35      THEN % IL      06463380

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S:*****
S# PATCH 543 FOR TSSMCP.XVI.0 CONTAINS 13 CARDS. FIXES TO NEW LIBMAIN
S: THIS CORRECTS A NUMBER OF PROBLEMS IN THE NEW LIBMAIN/DISK.
S: 1. IF MORE THAN ONE EXCEPTION LIST APPEARS WITHIN ONE CONTROL CARD,
S: THEN THE SPACE FOR ALL EXCEPT THE LAST IS NOT FORGOTTEN.
S: FIXED AT 20570070 AND 20573350.
S: 2. IF THE EXCEPTION LIST CONTAINS MORE THAN 13 FILE NAMES AND THERE
S: IS AN AS CLAUSE, THEN A CONTROL CARD ERROR MAY OCCUR EVEN THOUGH
S: THERE REALLY IS NOT ONE. THIS IS BECAUSE THE ORIGINAL FILE NAME
S: HAS BEEN OVERWRITTEN BY THE EXCEPTION LIST. FIXED AT 20569930 ETC
S: 3. FIX TO USE DEFINES RATHER THAN CONSTANTS.
S: NATAL U. PATCH 543
      IF T GE0 COPYN AND T LE0 LOAD THEN      20566807
      IF T GE0 COPYN AND T LE0 LOAD THEN      20566822
      T1.[46:1]+HOLD3+(CN=EQUAL);             20569930
      IF HOLD3 THEN PROG[CNT]:=-1 ELSE        20569935
      IF CN GE0 IDENT THEN PROG[CNT]:=ACCUM[0] ELSE GO POWIE) 20569940
      T1.[47:1]+HOLD3+((CN+SCAN)=EQUAL);      20569960
      IF HOLD3 THEN PROG[CNT+1]:=-1 ELSE      20569965
      FORGETSPACE(XLST); XLST:=0;            20570070
      IF (CN+SCAN)=EQUAL THEN IF T1.[46:1] THEN 20570130
      ELSE IF CN GE0 IDENT THEN IF T1.[46:1] THEN GO POWIE 20570150
      IF (CN+SCAN)=EQUAL THEN IF T1 THEN      20570190
      ELSE IF CN GE0 IDENT THEN IF T1 THEN GO POWIE 20570210
      IF XLST NEQ 0 THEN BEGIN FORGETSPACE(XLST); XLST:=0; END; 20573350

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S:*****
S# PATCH 548 FOR TSSMCP.XVI.0 CONTAINS 1 CARD. WRONG FIB CHECK IN FINDOUTPUT
S: THIS PATCH PREVENTS FINDOUTPUT FROM CHECKING ON A NON-EXISTENT FIB.
S: THIS SHOWED UP BY USING:
S: CC COPY #/= FROM A TO A; END
S: WHERE THE SOURCE TAPE HAD A WRITE RING. LIBMAIN/DISK READ THE
S: DIRECTORY CORRECTLY AND THEN TRIED TO FIND THE OUTPUT TAPE,
S: FINDOUTPUT THEN FOUND THE TAPE OF CORRECT NAME, IN USE BY
S: LIBMAIN/DISK, WITH A WRITE-RING AND TRIED THE "FIB".
S: PRNTABLE[U],[15:15] WAS ZERO SO THAT M[M[3]+5],[41:1] WAS TESTED.
S: (M[3] CONTAINS THE MCP VERSION NUMBER). THE CONTENTS OF THE MEMORY
S: CELL TESTED COULD BE SUCH AS TO SATISFY THE TEST. THUS, LIBMAIN/DISK
S: THEN WROTE AN OUTPUT LABEL ON THE SOURCE TAPE AND FINALLY WHEN TRYING
S: TO DO THE NEXT READ, DECIDED THE TAPE WAS NOT A LIBRARY TAPE.

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$! THIS WOULD ONLY OCCUR IF THE SOURCE TAPE HAD A NON-ZERO PRN.
$! BY RAY BARTHO, NATAL U. PATCH 548, MARCH 29, 1976
      IF T3.[15:15]#0 THEN % DONT USE NONEXISTENT FIB          37027500
$!*****
$# PATCH 549 FOR TSSMCP.XVI.0 CONTAINS 5 CARDS.  AUTO "OU" FOR "NO SORT MEM"
      STREAM(P1MIX,T+R5XR6,A+I+SPACE(7));          18790600
      BEGIN DS=LIT ","; SI=LOC P1MIX; %SPOUT ".,", NOT "#", %GRK=549 18790700
      REPLY[P1MIX].[CF] + 3;          18791200
      J + 1;          18791300
$ VOIDT 18791701          18791400
$! THIS PATCH PROVIDES AN AUTOMATICALLY ASSUMED RESPONSE OF "OU" TO THE
$! "NO SORT MEM" MESSAGE.  IN ADDITION, THE PREFIX OF THE MESSAGE
$! HAS BEEN ALTERED TO ".," FROM "#", TO IDENTIFY THIS MESSAGE AS
$! "INFORMATION ONLY" INSTEAD OF A "REQUEST FOR OPERATOR INTERVENTION".
$! G.R.KENNEDY 12FEB75.  BROCK U. PATCH 549
$! MODIFIED BY DR, UCSC, TO DELETE FROM THE SOURCE, THE CODE THAT NEVER
$! CAN BE EXECUTED AS A RESULT OF BROCK U. PATCH 549.  JAN. 17, 1977
$! SEE ALSO UCSC DCMCP PATCH 713, NATAL U. PATCH 713, DREXEL U. PATCH 751
$!*****
$# PATCH 550 FOR TSSMCP.XVI.0 CONTAINS 3 CARDS.  RESTART LOG AFTER INTERRUPT
$! IF AN EXTERNAL INTERRUPT E.G. IOBUSY, IOCOMPLETE, PRINTERFINISH,
$! TIMER OCCURS SIMULTANEOUSLY WITH A PROCESSOR DEPENDENT INTERRUPT E.G.
$! COMMUNICATE, THEN THE EXTERNAL INTERRUPT WILL BE HANDLED FIRST AND
$! THE LOGGING STOPPED FOR THE JOB.  IF THERE ARE NO INDEPENDENT
$! RUNNERS WAITING TO BE STARTED AND THERE IS NOTHING IN THE BED, THE
$! LOGGING WILL NOT BE RESTARTED FOR THE JOB WHEN ITS INTERRUPT IS
$! HANDLED.  THIS WAS DISCOVERED WHEN USING THE TIME(2) FUNCTION.
$! BY RAY BARTHO, NATAL U. PATCH 550, APRIL 21, 1976
  $ SET OMIT = NOT(NEWLOGGING)          48100499
    STARTLOG(P1MIX);          48100500
  $ POP OMIT          48100501
$!*****
$# PATCH 560 FOR TSSMCP CONTAINS 4 CARDS.  SMALLER PBD ROW SIZES
$! BROCK U. PATCH 560, NATAL U. PATCH 732
DEFINE PAGESIZE = 450#; % PACKET PAGE PBD SIZE          02113091
      150# % SEGMENTS PER ROW          08699150
      050# % PHYSICAL RECORDS PER ROW          08699350
      1000#% PHYSICAL RECORDS PER FILE          08699500
$!*****
$# PATCH 601 FOR TSSMCP CONTAINS 2 CARDS.  FIX PBD NO DISK DS          00000100
$! CORRECT CLOSING ACTION FOR PBD/PUD FILES IN BACKCLOSE AFTER          00000200
$! A NO USER DISK DS; FILE WOULD GET STUCK IN USE.          00000300
$! DREXEL U. PATCH 601 8/10/75          00000400
$! MODIFIED FOR TSSMCP BY DR, UCSC FEB. 4, 1977          00000500
$! SEE ALSO OFFICIAL PATCH 155 TO DCMCP OR 148 TO TSSMCP, AND          00000600
$! DREXEL U. PATCH 662          00000700
      END;          38601100
$ VOIDT          38621500
$!*****
$# PATCH 602 FOR TSSMCP CONTAINS 4 CARDS.  BAD INCW
$! THIS PATCH WILL "SD" A JOB THAT GETS INTERRUPTED AND "ANALYSIS"
$! SEEMS TO THINK ITS INCW IS IN LOW CORE, LIKE M[0].
$! ITS HAPPENED A FEW TIMES, KILLING MEMORY CELL ZERO.
$! DREXEL U. PATCH 602 10/5/75
$! MODIFIED FOR TSSMCP & TO NOTIFY US IF THIS CONDITION EVER ARISES AT
$! UCSC, BY DR UCSC FEB. 14, 1977
      IF INCW.[CF]<@1777 THEN % SOMETHING VERY WRONG          14015200

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BEGIN JAR[P1MIX,6],[1:1]+1; % SD BIT 14015210
FILEMESS("SEF TSS", " PATCH ",0,0,0,0,602)%KLUGE MSG&DS 14015220
END; 14015240
$!*****
$# PATCH NUMBER 603 FOR TSSMCP CONTAINS 19 CARDS. FIX COPY 11011072
FORM = 77,% SWITCH D(PCC)"FORM"="SPECIAL" 20240000
LRANDOM, 20392890
SWITCH D+LFORM, 20394000
LRANDOM, 20394090
LNO,LDISK,LTAPE,LPUNCH,LPRINT,LPAPER, 20394900
TPNO+12; GO TO DSKCHECK; % "DISK" MEANS DISK SERIAL 20457000
BEGIN TPNO+21; IF TYPE=COPYN THEN BEGIN 20461300
TPNO+22; GO LCOPY END ELSE 20461310
IF SCAN#BACK THEN GO ERROR; 20461320
END; 20461330
IF TYPE=COPYN THEN BEGIN TPNO+22; GO LCOPY END ELSE 20461810
BEGIN TPNO+4; IF TYPE=COPYN THEN BEGIN 20470000
TPNO+15; GO TO LCOPY END ELSE 20470100
IF SCAN#BACK THEN GO ERROR; 20470110
END; 20470120
IF TYPE=COPYN THEN BEGIN TPNO+16; GO LCOPY END ELSE 20475100
LRANDOM; TPNO+10; GO TO DSKCHECK; 20481900
"FORM ", 77, % SWITCH D(PCC) 41485600
"RANDOM ", 78, 41485610
$!
$! THIS PATCH CORRECTS THE INABILITY TO SPECIFY COPIES WITHOUT
$! ALSO SPECIFYING BACK UP DISK ON THE FILE CARD.
$! MODIFIED 12/2/73 - SPECIFYING "DISK" ON A FILE CARD NOW MAKES
$! IT A SERIAL FILE. EX: Q ALGOL FILE TAPE=A/B DISK
$! MODIFIED 12/21/75 - SPECIFY "RANDOM" TO GET RANDOM DISK.
$! MODIFIED 12/21/75 TO MAKE OTHER PATCHES FIT BETTER.
$! FROM DREXEL UNIVERSITY - JHH - 5/21/76
$! THIS PATCH IS AFFECTED BY PATCH 724
$!*****
$# PATCH 604 FOR TSSMCP CONTAINS 1 CARD. DISK ADDRESS ERROR 00000100
$! THIS PATCH CORRECTS FOR AN UNDETECTED DISK ADDRESS ERROR AT H/L. 00000200
$! DREXEL U. PATCH 604 3/20/76 00000300
IF (RA=RL) GEQ RADD THEN RLEN != 0 ELSE 40060060
$!*****
$# PATCH 639 FOR TSSMCP CONTAINS 2 CARDS. EOF PSEUDO=RDRS 00000100
$! THIS PATCH CORRECTS AN EARLY EOF ON PSEUDO=RDRS WHERE THE LAST CARD 00000200
$! IN A DECK (USUALLY AN "END" CARD) WOULD NOT GET LISTED IN THE PACKET. 00000300
$! MODIFIED 8/18/74 TO AVOID A SUPERFLUOUS READ ON DISK SEG ZERO CAUSED 00000400
$! BY THE ABOVE PATCH. 00000500
$! DREXEL U. PATCH 639, ORIGINALLY 8/8/73 00000600
IF (A:=N:=*P(DUP)+1) > (H[7]+1) THEN 07397000
IF I>0 THEN % NEXT BUFF EXISTS 07401900
$!*****99999999
$# PATCH 643 FOR TSSMCP CONTAINS 12 CARDS. FIX PLACEFINDER
IF (NT1+JAR[P1MIX,10])=0 THEN GO SANDA; % NO LINE DICT 04709900
DISKWAIT(-T,30,NT1); 04710000
IF (AA+B[0],[FF])=0 OR S>B[1] OR A>1023 THEN 04711000
NT1+JAR[P1MIX,8]; NT2+AA+S DIV 30; 04722000
IF (NT3+NT2 DIV NT1 + 10) > 29 THEN GO TO SANDA; 04723000
IF (NT3+JAR[P1MIX,NT3])=0 THEN GO TO SANDA; 04724000
I+NT3+NT2 MOD NT1; DISKWAIT(-T,30,I); 04725000
IF (J+B[S MOD 30]) < 0 THEN GO TO SANDA; 04726000

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AA+J.[CF]; IF J.[FF] = 0 THEN J.[FF]+1;                                04727000
$ VOIDT                                                                04730000
    IF W*(W+S DIV 30) THEN DISKWAIT(-T,30,(JAR[P1MIX,(NT1+AA+W)04731000
        DIV (NT2+JAR[P1MIX,8])+10]+NT1 MOD NT2) DIV 1  ));          04731100
$: THIS PATCH CORRECTS A PROBLEM OF INCORRECT DISK ADDRESSES
$: IN MCP PROCEDURE PLACEFINDER.
$: MODIFIED 11/25/73 - STOP POSSIBLE CONTROL=STATE LOOP IF BINARY
$: SEARCH BOTTOMS OUT.
$: MODIFIED 3/10/74 - CHECK THAT THE SEGMENT EXISTS IN THE PROGRAM,
$: AND THE ADDRESS IS LEQ 1023. IF NOT, JUST GIVE SEG AND ADDR.
$: ALSO, ELIMINATE USELESS READ ON DISK SEG ZERO IF NO LINE DICT.
$: DREXEL U. PATCH 643
$: MODIFIED FOR TSSMCP BY DR. UCSC JAN. 18, 1977
$: SEE ALSO UCSC PATCH 515
$: SEE ALSO DREXEL U. PATCHES 209, 785, 789, AND BROCK U. PATCH 528
$!*****
$# PATCH 644 FOR TSSMCP CONTAINS 2 CARDS. <MIX>TI
$: FIX BUG
$: DREXEL U. PATCH 644 9/23/73
$: MODIFIED FOR TSSMCP BY DR. UCSC FEB. 10, 1977
    T + ((CLOCK+P(RTR)) DIV 60).[31:17] =                                08533000
    IF T<0 THEN T + T + @400000;                                         08533150
$!*****
$# PATCH 645 FOR TSSMCP CONTAINS 1 CARD. FIX DISKIO                    00000100
$: THIS PATCH INTEGERIZES THE ARGUMENTS TO DISKIO TO INSURE           00000200
$: THAT THE VALUES ARE INTERPRETED CORRECTLY. BAD THINGS MIGHT      00000300
$: HAPPEN IF A REAL (NORMALIZED) NUMBER IS PASSED TO DISKIO.          00000400
$: DREXEL U. PATCH 645 12/2/73                                          00000500
    CORE:=CORE; SIZE:=SIZE; DISK:=DISK; % INTEGERIZE                    06004100
$!*****99999999
$# PATCH 647 FOR TSSMCP CONTAINS 2 CARDS. + FOR SPOUT
$: THIS PATCH PREVENTS PROBLEMS WITH DATA PASSED TO SPOUT WITHOUT A
$: GROUP MARK (+). SYMPTOMS USUALLY INCLUDE A BOMBED MEMORY LINK.
$: A "+" IS PLACED IN THE LAST CHARACTER OF THE MESSAGE.
$: DREXEL U. PATCH 647 2/2/74
    STREAM(X+((M[MESSAGE-1].[CF]-1) & 7 [CTF]));                          02142100
    DS + LIT "+";                                                         02142110
$!*****
$# PATCH 654 FOR TSSMCP CONTAINS 4 CARDS. FIX LDCNTRL                  00000100
$: THIS PATCH VOIDS SOME CODE FROM COM23 2/25/74                      00000200
$: IF LDCNTRL WAS STARTED FROM A PSEUDO DECK AND DS ON A NO FILE      00000300
$: THE SYSTEM WOULD LOSE WHICH PSEUDO=RDR THE JOB HAD STARTED FROM    00000400
$: WHEN LDCNTRL ENDED THE ACTIVITY COUNT FOR THE PSEUDO=RDR           00000500
$: WOULD NOT BE COUNTED DOWN THUS LEAVING THE DECK STUCK FOREVER      00000600
$: (OR UNTIL H/L WHICH EVER COMES FIRST)                               00000700
$: 7/3/74 CORRECTS A PROBLEM WITH LDCNTRL ENDING IF THE CARD READER   00000800
$: GOES NOT READY AFTER READING A CONTINUE CARD                       00000900
$: DREXEL U. PATCH 654                                                 00001000
    IF FIRST AND CDOONLY AND NOT CONTINUE THEN                          07059110
    GO EXIT ELSE                                                         07059112
$ VOIDT 07071912                                                         07071899
$ VOIDT 07072902                                                         07072899
$!*****99999999
$# PATCH 675 FOR TSSMCP CONTAINS 5 CARDS. PRNPBT ES=ED
$: THIS PATCH FIXES THE WAY TERMINATE HANDLES AN ES=ED PRNPBT/DISK.
$: THE CODE WAS ALL WRONG SINCE XV.2 REWROTE PRNPBT.
$: NOW THE UNITS (PRINTER, PUNCH, TAPE) SHOULD BE CLEARED PROPERLY.

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$ DREXEL U. PATCH 675 6/15/74
$ SEE DREXEL U. PATCHES 750, 826
      BEGIN
      IF (LUN+L,[41:5])<16 THEN SLAPITOFF;
      LUN+L,[46:2]+19; % LPA, LPB, OR CPA
      SLAPITOFF;
      02261250
      02261300
      02261350
      02261400
      02261450
$ VOIDT 02261701
$*****
$# PATCH 688 FOR TSSMCP CONTAINS 2 CARDS. FALSE CONTROL CARD ERRORS
      CCCOMPILE+0; % INITIALIZE
      CCUNIT+0; % INITIALIZE
      20584390
      20590030
$ THIS PATCH WILL CORRECT A PROBLEM WITH INCORRECT CONTROL CARD ERRORS
$ DREXEL U. PATCH 688 4/27/75
$ MODIFIED FOR TSSMCP BY DR, UCSC FEB. 7, 1977
$*****
$# PATCH 697 FOR TSSMCP CONTAINS 2 CARDS. IO ERR STATUS
$ THIS PATCH CORRECTS A PROBLEM WHERE STATUS COULD GET AN UNEXP IO ERR
$ WHILE PLAYING WITH A TAPE DRIVE. IT SHOULD RECOVER OK NOW.
$ DREXEL U. PATCH 697 1/25/76
      DO UNTIL (T1+WAITIO(AREA INX @340000012,@75,U))#0;
      IF T1.[43:2]#0 THEN T1+WAITIO(@4200000000,5,U);
      22112000
      22112100
$*****
$# PATCH NUMBER 708 FOR TSSMCP.XIII CONTAINS 3 CARDS PRINT PRN WITH PG
      IF TEST THEN BEGIN STREAM(B+T,BUFF);
      BEGIN DS+10 LIT"PG=ED(PRN="); SI+LOC B; DS+5 DEC; DS+2 LIT")+";
      END;
      END % PRINT PRN WITH PLAIN PGMT
      08051000
      08051004
      08051005
$ FROM DREXEL U.
$ SEE ALSO BROCK U. PATCH 543 FOR TSSMCP; PATCH 708 REQUIRES LESS CODE
$*****
$# PATCH 715 FOR TSSMCP.XV.3 CONTAINS 1 CARD. MT IO "ERRORS" TO "RETRIES"
$ CHANGE "ERRORS" TO "RETRIES" IN MAG TAPE IO MESSAGE, BECAUSE USERS
$ GET WORRIED BY IO ERRORS. (AS THEY RIGHTFULLY SHOULD, DR,UCSC)
$ NATAL U. PATCH 715; SPELLING BY DR, UCSC
      [12:30:18],"RETRIES",FPB(FN),FPB(FN+1),J,0,0);
      37285320
$*****
$# PATCH 717 FOR TSSMCP.XV.3 CONTAINS 13 CARDS. BACKUP TAPES NOT AUTOPRINT
$ TO MAKE PRINTER BACKUP TAPES IGNORED BY THE AUTOPRINT MECHANISM.
$ MODIFIED FOR MARK XV.2 BY RAY BARTHO AUG. 1, 1974
$ MODIFIED FOR MARK XV.3 BY RAY BARTHO NOV. 1, 1974
$ MONASH PATCH 556, NATAL U. PATCH 717
      LABEL FOUND,FIREITUP,QUIT;
      END ELSE % Q50, PB MT
      BEGIN RRRMECH+TWO(U+ABS(Q)) OR RRRMECH;
      LABELTABLE[U] +
      PBT&TINU[V][6:30:18]&@21[1:43:5];
      MULTITABLE[V] + PBT;
      LABELTABLE[V] + PBT&TINU[U][6:30:18]&
      @21[1:43:5];
      GO FIREITUP;
      END
      08255800
      08259800
      08259810
      08259820
      08259830
      08259840
      08259850
      08259860
      08259870
      08259880
      08260899
      38639000
      38640000
$ VOIDT 08266501
$ VOIDT 38639101
      IF J THEN SETNOTINUSE(U,0) ELSE LABELTABLE[U],[1:5]+1;
$*****
$# PATCH NUMBER 724 FOR TSSMCP CONTAINS 13 CARDS. FULL PAGE
      IF RDCTABLE[U] OR MULTITABLE[U]="FULLPGE"
      THEN IF IOQUE[S].[28:1] THEN IOQUE[S].[FF]+@40013 XDBL=CH 11
      04391550
      04391560

```

```

ELSE IDQUE[S],[FF]+@40012 % DBL SINGLE - SKIP TO CH 10 04391570
ELSE % SKIP TO CHAN 1 ON EOP IF NOT 66 LINES 04391580
RDCTABLE[V1.[47:1]+INREC[0]="FULLPGE"; % LINES66 OPTION 12860100
FORM = 76#, % SWITCH D(PCC)"FORM"="SPECIAL" 20240000
LINES66 = 77#, % 66 LINES PER PAGE 20240020
LLINES66, % 20392880
LLINES66, % 20394080
LLINES66: % 20465050
EQN[0] + "FULLPGE" ; %SET UP MFID FOR FULL PAGE 20465100
"FORM ", 76 , 41485600
"LINES66", 77 , 41485620

```

```

$!
$! REV 12/9/72 MARK XIV
$! THIS PATCH WILL CAUSE THE CHANNEL 12 PUNCH ON THE VERTICAL
$! FORMAT TAPE TO BE OVERLOOKED
$! THE PRINTER IS CLEARED BY DOING A SKIP OF A SINGLE OR DOUBLE
$! SPACE OR IS NOT CLEARED AT ALL DEPENDING ON THE ORIGINAL
$! CONTROL INFORMATION
$! THIS WAS TESTED ON MOD III IOS WITH B9242=4 PRINTERS
$! THE DOCUMENTATION SAYS THIS SHOULD NOT WORK I.E.
$! YOU ARE SUPPOSED TO CLEAR THE PRINTER WITH A SKIP TO CHANNEL
$! THIS MIGHT BE THE CASE WITH DIFFERENT PRINTERS AND/OR IOS
$! THIS VERSION WILL WRK ON ANY CARRIAGE TAPE ELIMINATING THE NEED
$! FOR SPECIAL PUNCHES ON CHANNELS 10 & 11

```

```

$!
$! MODIFIED JULY 1973 - MARK XV.1
$! MODIFIED 02/10/74 - MARK XV.2
$! MODIFIED 12/21/75 TO MAKE OTHER PATCHES WORK BETTER
$! FROM DREXEL UNIVERSITY - JHH - 5/21/76
$! NONE OF THE ABOVE STUFF IS TRUE ANYMORE - IT WONT WORK WITH B=321S
$! THE PROBLEM IS THAT WHEN THE B-321 HITS CHANNEL 12 PUNCH IT KEEPS
$! THE END OF PAGE STATUS BIT ON UNTIL A SKIP TO SOMETHING IS GIVEN
$! THIS PUTS MCP INTO A TIGHT LOOP. SO, WE GO BACK TO USING A
$! SPECIAL FORMAT TAPE WHICH HAS CHANNEL 11 PUNCHED A DOUBLE SPACE
$! AFTER CHANNEL 12, AND CHANNEL 10 PUNCHED A SINGLE SPACE AFTER
$! THIS PATCH AFFECTS PATCH 603

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$!*****
$* PATCH NUMBER 725 FOR TSSMCP.XIII CONTAINS 5 CARDS DONT ALLOW PRN=0
DI+DI-8; DS+LIT "+"; 08029046
IF NOT T.[1:1] THEN IF T=0 THEN 08033980
IF T.[1:1]=0 AND T=0 THEN BEGIN 08033992
STREAM(BUFF); DS+17 LIT "NOT PG=ED(PRN=0)+"; 08033993
LABELTABLE[U]+ @14; GO EXIT END; T+ABS(T); 08033994

```

```

$!
$! THIS PATCH WILL PROHIBIT THE OPERATOR FROM PURGING A TAPE THAT
$! HAS A PHYSICAL REEL NUMBER OF ZERO WITH THE PG MESSAGE UNLESS
$! HE ENTERS A NUMBER, SUCH AS "PGMTB-122". HE MAY ENTER "PGMTC=0"
$! IF FOR SOME REASON A PRN IS NOT APPLICABLE
$! FROM DREXEL U.

```

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$!*****
$* PATCH 745 FOR TSSMCP CONTAINS 3 CARDS. PBT REEL NUMBERING
$! THIS CORRECTS THE PROBLEM WHERE A JOB USING PBT USED MORE THAN ONE
$! REEL BEFORE ENDING. A SUBSEQUENT JOB REQUIRING PBT CONTINUED ON THE
$! FINAL REEL OF THE ABOVE JOB, BUT WHEN A REEL CHANGE OCCURRED, THE
$! VALUE OF REEL FOR THE CURRENT JOB WAS PUT IN THE LABEL OF THE NEW
$! REEL. THIS MEANT THAT WHEN PRINTING, THE REEL NUMBERS IN THE LABELS
$! WERE NOT CONSECUTIVE THUS INTERFERING WITH AUTOMATIC REEL SWITCHING.

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$; THE REEL NUMBER OF THE FIRST TAPE IS NOW PLACED IN THE RDCTABLE, AND
$; ASSIGNED TO NEW JOBS USING THE SAME PBT FROM THE RDCTABLE. THIS
$; CONFLICTS WITH THE DOCUMENTATION IN THAT THE DEFAULT REEL NUMBER FOR
$; PBT'S NEED NOT NECESSARILY BE ZERO.
$; NATAL U. PATCH 745
$; MODIFIED FOR TSSMCP BY DR. UCSC      JAN. 17, 1977
      RDCTABLE[U]+P(DUP,LOD)&REEL[14:38:10]          37046177
      &CDATE[24:31:17]&CYCLE[41:41:7]             37046178
      REEL+RDCTABLE[U].[14:10] % GET ACTUAL REEL NUMBER 38247100
$!*****
$# PATCH 749 FOR TSSMCP CONTAINS 1 CARD. MEMORY PARITY ERR CAUSES "SD"
$; THIS PATCH WILL CAUSE THE MCP TO HOLD ON TO A PSEUDO-DECK OF A JOB
$; WHICH HAS BEEN DS-ED DUE TO A MEMORY PARITY. AFTER ALL, THAT WASN'T
$; HIS FAULT.
$; MODIFIED 6/15/74 - SD BIT SET IN TERMINALMESSAGA INSTEAD OF
$; IN OUTER BLOCK.
$; DREXEL U. PATCH 749 (BROCK U. PATCH 749 IS THE UNMODIFIED VERSION)
      IF N=32 THEN JAR[P1MIX,6].[1:1]+1 % MEM PAR      02206100
$!*****
$# PATCH 753 FOR TSSMCP.XV.3 CONTAINS 2 CARDS. TIME(=6) TO GET MIX INDEX
$; THIS ADDS A NEW TIME FUNCTION. TIME(=6) WILL RETURN THE MIX INDEX OF
$; THE CALLING PROGRAM AS AN INTEGER.
$; NATAL U. PATCH 753
      WD: I4+WEEKDAY; GO TO INITIATE;                18711500
      IF I4 = (=6) THEN I4+P1MIX;                   18711690
$!*****
$# PATCH 757 FOR TSSMCP.XVI.0 CONTAINS 12 CARDS. REMOVE UNLOAD FILES AT END
$; THIS PATCH CAUSES THE FILES SPECIFIED TO BE UNLOADED TO BE REMOVED
$; ONLY AFTER THEY HAVE ALL BEEN DUMPED. ALSO IF A DISK PARITY OCCURS
$; WHILE DUMPING THEN THAT FILE WILL NOT BE REMOVED.
$; NATAL U. PATCH 757
      M[FAINFO+J].[8:1]:=0; % DONT REMOVE IF UNLOAD  28093900
      P(M[FA+1],M[FA]); % SAVE NAME FOR UNLOAD      28094500
      NT1:=P; M[FA]:=NT1; M[FA+1]:=P(XCH); % REPLACE NAMES 28097100
$ VOIDT 28265801                                     28265600
      TMP:=FASZ DIV 2 - 1;                            28307700
      FOR J:=0 STEP 1 UNTIL TMP DO                    28307705
      IF (DA:=M[FAINFO+J]).[CF]=18 THEN % FROM DISK 28307710
      IF UNLOAD THEN                                  28307715
      BEGIN MFID:=M[FA+J*2]; FID:=M[FA+1+J*2];      28307720
      P(DIRECTORYSEARCH(-MFID&1[3:47:1],FID,7),DEL); 28307725
      IF DSED THEN GO TO INITIATE;                   28307730
      END;                                             28307735
$!*****
$# PATCH 764 FOR TSSMCP CONTAINS 3 CARDS. TAPES IN USE AFTER FM OR IL 00000100
$; THIS PATCH PREVENTS TAPE UNITS FROM BEING MARKED AS IN USE. THIS 00000200
$; OCCURS AFTER AN "IL" TO A TAPE UNIT IN RESPONSE TO A "#NO FIL ON 00000300
$; DISK" OR AN "FM" TO A TAPE UNIT CONTAINING A TAPE WITH NO WRITE RING 00000400
$; IN RESPONSE TO A "#FM RQD". THE TAPE WILL REMAIN IN USE UNTIL A H/L 00000500
$; OR THE UNIT IS CLEARED BY A "CL".                00000600
$; HERIOT-WATT U. PATCH 764                          00000700
$; MODIFIED FOR TSSMCP BY DR. UCSC      FEB. 3, 1977
      END ELSE LABELTABLE[T2]:=-(+P(DUP));          06463740
      IF PRNTABLE[U].[1:1] THEN ELSE                37053300
      BFGIN LABELTABLE[U]:=-(+P(DUP));GO TO SOMEWHERE;END; 37053400
$!*****
$# PATCH 791 FOR TSSMCP CONTAINS 4 CARDS. TYPE PBCOUNT AT HALT=LOAD

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$! PATCH TO TELL THE OPERATOR HOW MANY BACK-UP FILES THERE ARE ON DISK, 00000200
$! REGARDLESS OF THE SETTING OF "AUTOPRNT", 00000300
$! THE FIRST & THIRD CARDS REMOVE THE DECLARATION FOR THE UNUSED LOCAL "L"
$! AND VOIDS SOME UNUSED CODE REFERENCING "L" TO SPOUT THE "PBCOUNT" MESSAGE.
$! BY NILS OTTE, UNIVERSITY OF NATAL. SEPT., 1976 00000600
$! HERIOT-WATT U. PATCH 791 00000700
$! MODIFIED FOR TSSMCP BY DR, UCSC FEB. 8, 1977
REAL NEXTLINK, AD, X, K, SEVEN7, FORTY, EUSU; 40004500
      IF PBCOUNT > 0 THEN % TELL OPERATOR 40320100
      END; SPOUT(X); 40320600
$ VOIDT 40338000
$!*****
$# PATCH 801 FOR TSSMCP CONTAINS 39 CARDS. MULTI KEYIN MESSAGES
REAL BUFF, KTR, TYPE, MIX, A, I, J, K, T, 16951600
  LABEL RESTART; 16951950
RESTART; 16954450
  TYPE + KEYINSCAN(KTR,MIX); 16954502
  IF (PROCD+TYPE.[1:5])=1 AND ((I+TYPE.[CF])=8 OR I=VCC 16954504
    OR I=33 OR I=34) OR (PROCD=0 AND I=1) THEN ELSE % SS,CC,OC,FE,AX 16954506
  BEGIN 16954508
    STREAM(KTR,I); 16954510
    BEGIN SI+KTR; 16954512
      8(60(IF SC="" THEN 16954514
        BEGIN L: SI+SI+1; 16954516
          63(SI+SI+1) IF SC="" THEN JUMP OUT; 16954518
          IF SC="+" THEN JUMP OUT 3 TO YECH); 16954520
          SI+SI+1; 16954522
          IF SC="" THEN GO TO L; 16954524
        END; 16954526
        IF SC="+" THEN JUMP OUT 2 TO YECH; 16954528
        IF SC=";" THEN 16954530
        BEGIN 16954532
          I+SI; TALLY+1; 16954534
          DI+I; DS+LIT "+"; 16954536
          X: SI+SI+1; IF SC=";" THEN GO TO X; I+SI; 16954538
          JUMP OUT 2 TO YECH; 16954540
        END; SI+SI+1)); 16954542
        YECH: KTR+TALLY; 16954544
      END STREAM; 16954546
      I+P; IF P THEN 16954548
      STREAM(I, T+T+GETSPACE(62,0,0)+3); 16954550
      BEGIN 16954552
        SI+I; 16954554
        8(60(IF SC="+" THEN JUMP OUT 2 TO L ELSE DS+CHR)); L:DS+LIT"+"; 16954556
      END STREAM; 16954558
      END CHECK FOR KEYIN RECYCLE; 16954560
      IF PROCD=7 THEN GO TO TBLERR; 16954600
      IF T>0 THEN % ANOTHER MESSAGE 16969710
      BEGIN 16969720
        BUFF+T; T+0; 16969730
        GO RESTART; 16969740
      END; 16969750
$! DREXEL U. PATCH 801 9/23/73
$! THIS PATCH WILL ALLOW MORE THAN ONE COMMAND IN EACH KEYBOARD MESSAGE
$! SEPARATED BY SEMICOLONS, AS SUCH:
$! MX;TS;BL;CC REMOVE A/B
$! NOTE: NO KEYIN COMMANDS MAY BE CONTINUED AFTER A CONTROL CARD IS

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$: FOUND.
$: MODIFIED 11/10/73 - CHAINED MESSAGES IGNORED FOR FE, OC, AX.
$: MODIFIED 9/8/74
$: THIS PATCH INHIBITS THE RUNNING OF KEYIN PROCEDURE "KEYIN2" IF THE BED
$: IS GETTING FULL.
$: IF THE OPERATOR (OR A REMOTE USER) KEYS IN A MESSAGE CAUSING
$: INDEPENDENT RUNNER KEYIN2 TO RUN, AND THE BED IS WITHIN 4 ENTRIES OF
$: FULL, A "WAIT...(KEYIN MESSAGE)" WILL BE SPOUTED. (NOT NEEDED IN TSSMCP)
$: MODIFIED 10/5/75 - FIX PROBLEM WHERE IF INPUT MESSAGE IS LONGER THAN
$: 480 CHARACTERS, A + WOULD BE PUT IN THE FIRST CHARACTER OF THE
$: NEXT MEMORY LINK, LEADING TO GRAVE PROBLEMS.
$: ALSO, SUCCESSIVE SEMICOLONS ARE IGNORED.
$: MODIFIED FOR TSSMCP BY DR, UCSC FEB. 7, 1977
$!*****
$# PATCH 815 FOR TSSMCP CONTAINS 17 CARDS. CLEAR IN USE FILE
$: DREXEL U. PATCH 815 2/10/74
$: THIS PATCH WILL ENABLE THE OPERATOR TO CLEAR AN IN-USE FILE BY
$: DOING A "Q RESET FILE A/B". IT SHOULD BE USED CAUTIOUSLY SINCE
$: DIRE CONSEQUENCES COULD RESULT FROM "CLOSING" A TRULY "IN-USE"
$: FILE. IT IS USEFUL FOR THOSE STUCK IN USE PBD FILES AND SUCH.
$: MODIFIED 10/27/75 - REPEAT MCP FILE IN USE MESSAGE ABOUT EVERY 2 MIN.
$: MODIFIED FOR MARK XVI BY DR, UCSC FEB. 11, 1977
$: SEE ALSO UCSC PATCH 519
      WHILE NOT TOG DO
          COMPLEXSLEEP((CLOCK AND @17777)=0 OR TOG);
          SLEEP([CLOCK],NOT CLOCK);
BOOLEAN FT=N; DEFINE FH(FH1)=M[T+FH1]#; % RESET FILE A/B
SUBROUTINE CLEARTHEFILE; % CLEAR AN IN-USE FILE
BEGIN
    FH[4],[01:06]+0; % EXCLUSIVE
    FH[4],[16:20]+0; % OPEN COUNT 2
    FH[9],[01:28]+0; % TOGS & OPEN COUNT 1
    DISKWAIT(T,[CF],30,T,[FF]); % FIX IT
    FILEHOLD(CMM[2],CMM[3],0,T,0); % WAKE UP WAITING PROCESSES
    LBMESS(CMM[2],CMM[3],11,26,0,SPOUTUNIT,1);
END CLEARTHEFILE;
    IF CN#ACCESSD THEN
        IF NOT (FT#FXTOG+(CN#FILEV)) THEN GO TO CCERR;
$ VOIDT
    END ELSE IF FT THEN CLEARTHEFILE ELSE BEGIN
$!*****
$#PATCH NUMBER 846 FOR TSSMCP CONTAINS 7 CARDS. DUMMY FILE
    IF IOD.[3:5]=30 THEN GO RETURN; % SPO
    FORM = 75#,% SWITCH D(PCC)"FORM"="SPECIAL"
    LDUMMY,
    LDUMMY,
LDUMMY: TPNO+11; % " FORM SPO" = DUMMY FILE
    "FORM " , 75 , % SWITCH D(PCC)
    "DUMMY " , 76 ,
04105998
20240000
20392870
20394070
20451900
41485600
41485630
$:
$: THIS IS THE MCP PORTION OF THE DUMMY FILE PATCH. IT ALSO REQUIRES A
$: PATCH TO THE INTRINSICS. IT PROVIDES THE WORD "DUMMY" AS A UNIT
$: TYPE, OUTPUT TO "DUMMY" WILL CREATE A "SPECIAL FORM SPO FILE",
$: WHICH THE INTRINSICS WILL IGNORE.
$: FROM DREXEL U. PATCH 846 JHH AT UCSC
$!*****
$#PATCH 890 FOR TSSMCP CONTAINS 173 CARDS - DATA029/EBCDIC

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$:AUG 1975 HERIOT-WATT UNIVERSITY * LOCAL ONLY*
$:AND PERFORMS EBCDIC TO BCL CONVERSION
$:IMPLEMENTS DATA029 CARD
$:WAS PATCHES 900-902 IN MARK XV.1. *** NB: SEQUENCE NUMBERS CHANGED ***
$:
PROCEDURE EBTABLE;                                07003270
BEGIN LABEL L;                                    07003280
    P(O,XIT,.L,DEL);                               07003290
L:;                                                07003300
O," 32?","1????","OTS?","/???","-LK?","J???","????","????","&CB?","A???",07003310
"#???","????","????","????","????","????",07003312
"9???","????","Z???","???","R???","????","????","????","I???","????",07003320
"????","????","????","????","????","????",07003322
"8#1?","????","Y,x?","???","Q$]?","????","????","????","H.[?","????",07003330
"????","????","????","????","????","????",07003332
@07770675,@05370413,@067146616,@65176473,07003340
@47574656,@45554453,"????","????", @27742620,@25352436,07003342
$: %O,"????","????","????","????","????",07003344
%QMARKADDRESSES                                 07003350
"????","????","????","????","????","????","????","????",07003352
"????","????","????","????","????","????",07003354
    O,O,O,O,O,O,O,O,O,O,O,O,O,O,O,O, % SPACE FOR ADDRESSES 07003360
    O,O,O,O,O,O,O,O,O,O,O,O,O,O,O,O,07003370
END;                                              07003380
REAL PROCEDURE SETUPEBTABLE;                       07003400
BEGIN REAL ADR; LABEL EXIT;                       07003410
DEFINE STOREADDRESS=                              07003412
XI:=SI; SI:=LOC X; SI:=SI+5;                       07003414
DS:=3 CHR; DI:=DI+5 #;                             07003416
EBTABLE;                                           07003420
P((M[(ADR:=P(.EBTABLE) INX NOT 1)]],IOR);          07003430
    SETUPEBTABLE:=ADR:=ADR.[CF]+3;                07003440
    IF M[ADR+81] = 0 THEN                           07003450
STREAM (X:=O, TABLE:=ADR, QMARKTABLEADDRESS:=ADR+32, LOCATIONS:=ADR+40); 07003462
BEGIN                                              07003464
DI:=TABLE; SI:=TABLE; SI:=SI+8;                   07003466
2(40(SI:=SI+4; DS:=4 CHR));                         07003468
    %FIRST FILL ALL OF ADDRESSES WITH ADDRESS OF ?S 07003482
SI:=QMARKTABLEADDRESS;                             07003484
XI:=SI;                                             07003486
SI:=LOC X; SI:=SI+5; %POINT SI AT ADDRESS OF QMARKS 07003488
DI:=LOCATIONS;                                     07003490
DS:=3 CHR;                                          07003492
SI:=LOCATIONS;                                     07003494
DS:=63 WDS;                                         07003496
    %NOW SET ADDRESSES FOR VALID CHARS INTO EBCDIC TABLE 07003498
SI:=TABLE;                                         07003500
DI:=LOCATIONS;                                     07003502
3(STOREADDRESS; %STORE ADDRESSES FOR LP=0,1,2      07003504
    %CORRESPONDING TO BLANK,9 HOLE,8 HOLE          07003506
SI:=X;                                             07003508
SI:=SI+63; SI:=SI+1); %SKIP 8 WORDS DOWN TABLE 07003510
DI:=DI+8; %LP=3 IS INVALID                         07003512
STOREADDRESS; %LP=4..... 7 HOLE                   07003514
DI:=DI+8; %LP=5 IS INVALID                         07003516
SI:=X;                                             07003518
SI:=SI+1; %SKIP 1 CHAR DOWN TABLE                07003520

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STOREADDRESS;	%LP=6....7&8 HOLES TOGETHER	07003522
DI:=DI+8;		07003524
SI:=X;		07003526
SI:=SI+1;		07003528
STOREADDRESS;	%LP=8....6 HOLE	07003530
DI:=DI+8;		07003532
SI:=X;		07003534
SI:=SI+1;		07003536
STOREADDRESS;	%LP=10....6&8 HOLES TOGETHER	07003538
DI:=DI+40;	%MISS 5 WORDS...LP=11,12,13,14,15	07003540
SI:=X;		07003542
SI:=SI+1;		07003544
STOREADDRESS;	%LP:=16.... 5 HOLE	07003546
DI:=DI+8;		07003548
SI:=X;		07003550
SI:=SI+1;		07003552
STOREADDRESS;	%LP=18.... 5&8 HOLES TOGETHER	07003554
2(DI:=DI+52);	%MISS 13 WORDS...LP=19-31	07003556
SI:=X;		07003558
SI:=SI+1;		07003560
STOREADDRESS;	%LP=32.... 4 HOLE	07003562
DI:=DI+8;		07003564
SI:=X;		07003566
SI:=SI+1;		07003568
STOREADDRESS;	%LP=34..... 4&8 HOLES TOGETHER	07003570
END;		07003580
END;		07003590
*****		07003600
STREAM PROCEDURE EBCDICCONVERT(INTO, TABLE, POINTERS);		07003610
VALUE INTO, TABLE, POINTERS;		07003615
*****		07003620
BEGIN		07003630
LOCAL HP, LP, SRCE, DEST, HPPTR, LPPTR;		07003640
%POINT HPPTR & LPPTR TO LAST CHAR OF HP, LP		07003650
SI:=LOC HP;		07003660
SI:=SI+7;		07003670
HPPTR:=SI; %HIGH PART		07003680
SI:=LOC LP;		07003690
SI:=SI+7;		07003700
LPPTR:=SI; %LOW PART		07003710
SI:=INTO; SI:=SI+8;		07003720
DI:=INTO;		07003730
%START CHARACTER TRANSLATE LOOP		07003740
2(40(07003750
DEST:=DI;		07003760
%TRANSFER LOW & HIGH PARTS		07003770
DI:=HPPTR;		07003780
DS:=1 CHR;		07003790
DI:=LPPTR;		07003800
DS:=1 CHR;		07003810
SRCE:=SI; %STORE SI FOR NEXT PASS THRU LOOP		07003820
%NOW FIND THE POINTER INTO TABLE APPROPRIATE TO LP		07003830
SI:=POINTERS;		07003840
LP(SI:=SI+8);		07003860
SI:=SC; %SI NOW POINTS INTO TABLE @ POINT DEPENDANT ON LP		07003870
DI:=DEST;		07003880
SI:=SI+HP; %SKIP SI THROUGH TABLE HP CHARS		07003890

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DS:=CHR;
SI:=SRCE));
DI:=TABLE; DI:=DI+3;          %POINT TO QMRK
END CONVERT;
BOOLEAN EBCDIC; REAL EBTABLEADR;
      IF EBCDIC THEN
      BEGIN
        EBCDIC:=FALSE;
        M[(+P(.EBTABLE) INX NOT 1)].[2:1]:=0;
      END;
      STREAM(X:="PACKETS";Y:="CONTINU";Z:="END.  ",
        EB:="DATA029",INBUFF);
INBUFF:=SI;
      ELSE BEGIN SI:=INBUFF;DI:=LOC Y;
        SI:=INBUFF;
        IF 3 SC=DC THEN TALLY:=7
        ELSE BEGIN
          DI:=LOC EB;DI:=DI+1;
          SI:=INBUFF;
          IF 6 SC=DC THEN
            TALLY:=4;
          END
        END
      END;
$VOID
$VOID 07036351
      END
      END
      END;
IF PTYPE = 4 THEN
  BEGIN PTYPE:=0; EBCDIC:=TRUE;
    EBTABLEADR:=SETUPEBTABLE;
  END;
  ELSE BEGIN WHILE(Q:=WAITID(@40000000+INBUFF+
    EBCDICx@400000001,FIRSTx4+
    IF EBCDIC THEN EBCDICCONVERT(INBUFF,
      EBTABLEADR,EBTABLEADR+40) ELSE
      STREAM(QMK:=12;BCL:=1-EBCDIC,INBUFF);
    BEGIN
      SI:=INBUFF;
      BCL (IF SC="" THEN JUMP OUT TO L1);
      IF SC=@14 THEN
        L1: BEGIN SI:=LOC QMK;SI:=SI+7;
          DS:=1 CHR;
          TALLY:=1;
          SI:=INBUFF;
          2(36(IF SC=">" THEN
            BEGIN INBUFF:=SI; DI:=INBUFF;
              DS:=LIT "="
            END;
            IF SC="2" THEN
              BEGIN INBUFF:=SI; DI:=INBUFF;
                DS:=LIT ""
              END; SI:=SI+1;))
          END;
          QMK :=TALLY;
        END;
        Q:=P OR Q;
      $ VOIDT
        INBUFF := GETSPACE (21,0,1) + 2;
        STREAM(CARDLOC);
        BEGIN SI+CARDLOC;

```

```

07003900
07003910
07003920
07003950
07009200
07031200
07031300
07031400
07031500
07031600
07032000
07032100
07034500
07036220
07036250
07036260
07036270
07036280
07036290
07036300
07036310
07036320
07036330
07036390
07039500
07039600
07039700
07039800
07059000
07059010
07060100
07060200
07066100
07066200
07066300
07066350
07066400
07066500
07066550
07066600
07066610
07066620
07066630
07066635
07066640
07066650
07066660
07066665
07066670
07066700
07066800
07066850
07066900
07086000
07101000
20374401
20374402

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2(36(IF SC=">" THEN                                20374403
BEGIN CARDLOC+SI;DI+CARDLOC;DS+ LIT "=" END;        20374404
IF SC=">" THEN                                       20374405
BEGIN CARDLOC+SI;DI+CARDLOC;DS+ LIT "" END;         20374406
SI+SI+1;))                                           20374407
END;                                                  20374408
(IF KOUNT = "=" THEN EQUAL ELSE % THIS IS AS IN SYMBOL 20380000
"DATA029", 4, , 41, ,                               41483010
$# PATCH 891 FOR TSSMCP.XVI.0 CONTAINS 8 CARDS. CORRECT 890 (DATA029)
$# CORRECTS A MISPUNCH IN PATCH 890 (900) WHERE EBTABLE WAS SET UP WRONGLY
$# DEREK BRUCE .. MAY 1976 .. H.W.U.
$#
$#
##### 07003250
##### 07003251
##### 07003252
"????", "????", "????", "????", "????", "????", 07003344
##### 07003390
##### 07003391
##### 07003392
##### 07101000
INBUFF + GETSPACE( 21,0,1 ) + 2;
$#PATCH 892 FOR TSSMCP CONTAINS 2 CARDS, CORRECT 890,891
@07770675,@05770413,@067146616,@65176473, 07003340
INBUFF + GETSPACE(21,IOBUFFERAREAV,1) + 2; 07101000
$# THIS PATCH MODIFIES THE DATA029 FEATURE (PATCH 890) SO THAT
$# SINGLE QUOTE COMING IN IS CHANGED OO D6 5
$# BY JHH, UCSC, 11 AUG 77
$# MODIFIED 19 AUG 77 TO USE AREA TYPING INTRODUCED IN PATCH 167
$# PATCH 901 FOR TSSMCP CONTAINS 1 CARD, TERMINAL LOG-IN MESSAGE #####
$# CHANGE THIS DATE EACH TIME ANY OTHER PATCHES ARE CHANGED, ++++++ LOOK <<<<<<
$# BY TJP, UCSC MODIFIED BY DR, UCSC
DS+35LIT"=UCSC B5700 TSSMCP OF 24 AUG 77, "; 03595560
$#
$# PATCH NUMBER 902 FOR TSSMCP CONTAINS 3 CARDS. AUTORN OPTION
AUTORN = OPTION.[17:1]#, 00416640
"AUTO", "RN00", %17% 41434800
IF AUTORN THEN BEGIN RUNUMBER:=4; STARTADECK(0); END; 44424100
$#
$# 3 CARDS DELETE THE RNALL OPTION USED WITH SHAREDISK ONLY AND
$# REPLACE IT WITH THE NEW AUTORN OPTION WHICH WILL AUTOMATICALLY
$# START PSEUDO READERS WHEN THE SYSTEM IS STARTED UP
$# BY JHH MARK XVI.0
$# SEE ALSO BROCK U. PATCH 571 FOR TSSMCP
$#
$# PATCH NUMBER 903 FOR TSSMCP CONTAINS 2 CARDS
IF LO=23 THEN BEGIN LO:=27; HI:=28; END ELSE 37195375
IF LO=27 THEN BEGIN LO:=0; HI:=15; END ELSE GO TO DUN; 37195400
$# THIS PERMITS PROC. FINDINPUT TO FIND UNIT PRA. OBSERVE THAT PRA
$# IS EXPECTED TO HAVE REEL NUMBER 1 MOUNTED, UNLESS SOME OTHER REEL
$# NUMBER IS DESIGNATED EXPLICITLY. JHH&DR AUG, 24, 1976
$#
$# PATCH 905 FOR TSSMCP.XVI.0 CONTAINS 1 CARD. DELETE UNUSED LABEL DECLARATION
$# BY DR, UCSC, OCT. 4, 1976
LABEL PX; 38660000
$#
$# PATCH NUMBER 917 FOR TSSMCP.XVI.00 CONTAINS 07 CARDS. "PBT ON MTX RW/L (PRN",
STREAM(MTX+TINU[UNIT],PRN+PRNTABLE[UNIT].[30:18],%517=GRK 12530010
D+T+SPACE(10)); %517=GRK 12530020

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        BEGIN SI+LOC MTX; SI+SI+5; DS+8LIT"#PBT ON ";%51712530030
          DS+3CHR; DS+7LIT" RW/L ("; DS+5DEC; %517 12530040
          DS+2LIT")+"; DI+DI-7; DS+4FILL; %517-GRK 12530050
        END STREAM; %517-GRK 12530060
    SPOUT(T); %517-GRK 12530070

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$!
$! THIS PATCH WILL SPOUT A RW/L MESSAGE WHEN A PBT IS LOCKED BY COM19
$! TO MAKE IT EASIER TO DETERMINE LATER WHICH TAPE WAS ACTUALLY
$! PRINTED.
$!

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$! G.R.KENNEDY 21MAR75. BROCK U. PATCH 517
$! SEE ALSO UCSC TSSMCP PATCH 940 = BROCK U. PATCH 540
$!*****
$# PATCH NUMBER 950 FOR TSSMCP.XVI.00 CONTAINS 03 CARDS.CLEANUP CANDE STUFF.GRK.
$ SET OMIT %SETUP SHORT/LONG CARRIAGE MESSAGE %550-GRK 05751400
$ POP OMIT %550-GRK 05754600
x**% SPOUTIT(T,CHRGK+1); %SHORT/LONG CARRIAGE MSG %550-GRK 05756500

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$!
$! THIS PATCH CLEANS UP SOME OF THE CANDE-RELATED MESSAGES A BIT.
$! 1. DONT BOTHER BUILDING/SPOUTING THE "SHORT/LONG CARRIAGE" MESSAGE.
$!

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$! G.R.KENNEDY 08MAR76. BROCK U. PATCH 550
$!*****
$# PATCH 991 FOR TSSMCP CONTAINS 9 CARDS. SCHEDULER CHANGE
$! THIS PATCH ATTEMPTS TO IMPROVE EFFICIENCY OF TSSMCP BY
$! REDUCING UNNECESSARY SWAPPING WITHOUT HURTING TERMINAL JOBS.
$! 1. THE TIME SLICE IS MADE MUCH LONGER FOR JOBS THAT USE A LOT
$! OF CORE.
$! 2. BATCH JOBS WHICH USE UP THEIR TIME SLICE ARE SWAPPED OUT
$! WITH "TIMEND" AS BEFORE, BUT TERMINAL JOBS ARE SWAPPED OUT
$! AT "FORCEND", GIVING THEM PRECEDENCE OVER THE "TIMEND" JOBS.
$! 3. BATCH JOBS WHICH ARE FORCED OUT ARE SWAPPED OUT WITH "TIMEND"
$! RATHER THAN AT "FORCEND".
$!

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        NT1+(S_LN[MIX]*30 + COUNT[MIX]*14 = NT1)*8 + 208; 21111540
        IF PRTRW[MIX].[PSF]=3 THEN PRTRW[MIX].[PSF]+0; %UCSC KLUDGE 21212010
        IF NT3=2 THEN STOPM ELSE SWAP 48030000
        IF LOGLINE.[33:7]#0 THEN 48030010
        IF NOT SCHEDULE[LOGLINE.[40:8]] THEN 48030015
        FORCESWAP ELSE TIMEND ELSE TIMEND,1); 48030020
    BEGIN SWAP(IF LOGLINE.[33:7]#0 THEN 48038400
        IF NOT SCHEDULE[LOGLINE.[40:8]] THEN FORCESWAP 48038405
        ELSE TIMEND ELSE TIMEND,1); GO TO RETURN END; 48038410

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$!
$! BY J.H., UCSC, 7 APR 77; REVISED 16 APR 77 REVISED 28 APR 77
$!*****
$# PATCH 992 FOR TSSMCP CONTAINS 4 CARDS. LABEL THE HIGH-SPEED PAPER TAPE RDR
$! AUTOMATICALLY ASSIGN A LABEL TO THE HIGH-SPEED PAPER TAPE READER PORT
$! WHENEVER IT GOES READY
$! BY DR, UCSC FEB. 10, 1977
$ VOIDT 22199000
        PAPER: LABELTABLE[U] + MULTITABLE[U] + "PRA "; 22201200
        RDCTABLE[U] + #100000000; % REEL NR. = 1 22201400
        GO TO COMMON; 22201600

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$!*****
$# PATCH 993 FOR TSSMCP CONTAINS 2 CARDS. AUTO-RY OF SCHEDULE LINES AT H/L
$! BY DR, UCSC FEB. 10, 1977

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FOR NT1+1 STEP 1 UNTIL LMAX DO                                44430000
IF SCHEDLINE[NT1] THEN SCHEDBUSY[NT1] + 0;                  44430100
$!*****
$# PATCH 995 FOR TSSMCP CONTAINS 2 CARDS. DUPLICATE FORWARD REFERENCES 00000100
$! WHERE THERE ARE 2 OR MORE FORWARD REFERENCES TO THE SAME          00000200
$! PROCEDURE, THIS PATCH DELETES ALL BUT THE 1ST FORWARD REFERENCE. 00000300
$! BY DR, UCSC FEB. 3, 1977                                           00000400
$! LINE 00364000 = LINE 06020500                                       00000500
$! LINE 00431500 = LINE 03099000                                       00000600
$ VOIDT                                                                03099000
$ VOIDT                                                                06020500
$!*****
$# PATCH NUMBER 996 FOR TSSMCP CONTAINS 1 CARD. AUTO-LOGOUT AT MIDNIGHT
DEFINE MIDNIGHT = BEGIN LOGOUT; XCLOCK:=XCLOCK-WITCHINGHOUR;        02393200
$!
$! THIS AUTOMATICALLY CHANGES THE LOG FILE AT MIDNIGHT, SO THAT
$! EACH LOG FILE CONTAINS ONLY ONE DAY-S WORTH OF LOGGING, TO
$! FACILITATE ANALYSIS.
$! BY JH, UCSC, 01/19/77
$!*****
$# PATCH NUMBER 998 FOR TSSMCP CONTAINS 2 CARDS. MIXMAX,MAXLMAX
DEFINE MIXMAX=10#;                                                00004000
DEFINE MAXLMAX=20 #; % SHUD BE ABT 8 + ACTUAL MAX LINES          00004500
$!*****

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LABEL 00000000LINE 00178065CC EX 0/R;COMMON=1;FILE S=PATCHES/TSSMCP;FILE LINE=LINE PRINT;END+ 0 /R

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