```
00010                    XLIST
```

01900

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                                    00030
                                    00040     ,SYSMAK ASSUMES AN EXISTING SYSTEM WITH A LOADER IN CORE FOR JOB 1
                                    00050     ,AND HIGHEST EMORY ADDRESS IN REAL 37.  TO CREATE A NEW SYSTEM, SET
                                    00060     ,37 AS DESIRED, LOAD NEW SYSTEM (WITHOUT GOING INTO EXECUTION), AND
                                    00070     ,START AT REAL 62.  THE COMPUTER WILL HALT AFTER THE NEW SYSTEM
                                    00080     ,HAS BEEN BLOCKED DOWN.  TO START, PRESS CONTINUE OR START AT REAL
                                    00090     ,60.  EXEC DDT (IF LOADED WITH THE NEW SYSTEM) STARTS AT REAL 141.
                                    00100     ;FROM REL. LOC. 30 ON UP IS BLOCKED DOWN
                                    00110
                                    00120     ,WHEN LOADING A NEW SYSTEM, LOAD SYSINI FIRST.
                                    00130     ;SYSINI CONTAINS A DISPATCH TABLE  DOCUMENTED TO BE AT LOC. 60
                                    00140     ;ALSO LOAD IOINIT LAST SINCE IT CONTAIN SOME ONCE ONLY CODE AT END
                                    00150     ;THEN LOAD SYSMAK FOLLOWED BY DDT(EXEC)
                                    00160     ;BE SURE THAT LOC SYSSIZ(SIZE OF SYSTEM) IS GREATER THAN
                                    00170     ;LAST LOC IN SYSMAK BEFORE STARTING TO LOAD.
                                    00180     ;LOC SYSSIZ IS IN LOWER CORE AND MAY HAVE TO BE PATCHED
                                    00190     ;USING CONSOLE SWITCHES.
                                    00200
                                    00210     INTERNAL SYSMAK,MAKEND
                                    00220     EXTERNAL JBTADR,JBTAD1
                                    00230
000000  200040 000000               00240     SYSMAK:   MOVE 1,JBTAD1       ;LOADER BLOCK ADDRESS FROM JOB ADDRESS
000001  200301 000002               00250               MOVE 6,2(1)         ;LOADER OFFSET
000002  271301 000000               00260               ADDI 6,(1)          ;BLOCK ADDRESS+OFFSET
000003  200101 000006               00270               MOVE 2,6(1);        SYMBOL TABLE POINTER:  -N,L = LOWEST AD
000004  271101 000000               00280               ADDI 2,(1)
000005  564140 000002               00290               HLRO 3,2
000006  213000 000003               00300               MOVNS 3   ;N = SYMBOL TABLE LENGTH
000007  200200 000037               00310               MOVE 4,DDTMEM       ;MEMORY SIZE(LOC 37)
000010  202206 000037               00320               MOVEM 4,DDTMEM(6)   ;STORE IN NEW DDTMEM
000011  275200 000200               00330               SUBI 4,200          ;ROOM FOR DECDUMP
000012  202206 000036               00340               MOVEM 4,DDTSYM(6)   ;ALSO STORE IN WHAT WILL BECOME DDTSYM
000013  200240 000002               00350               MOVE 5,2  ;LEAVES ROOM FOR DECDMP
000014  270240 000003               00360               ADD 5,3
000015  504240 000003               00370               HRL 5,3   ;C(5):=N,L+N
000016  274200 000005               00380               SUB 4,5
000017  553000 000004               00390               HRRZS 4   ;C(4):=0,C(37)-200-(L+N)
000020  270100 000004               00400               ADD 2,4   ;C(2):=-N,C(37)-200-N
000021  202105 000000               00410               MOVEM 2,(5)
000022  542200 000023'              00420               HRRM 4,.+1
000023  262245 000000               00430               POP 5,(5) ;MOVE SYMBOL TABLE TO TOP OF MEORY
000024  325240 000023'              00440               JUMPGE 5,.-1
000025  200400 000034'              00450               MOVE 10,[BLT 3,(2)]
000026  200440 000035'              00460               MOVE 11,[JRST 4,]
000027  541140 000030               00470               HRRI 3,30
000030  505146 000030               00480               HRLI 3,30(6)        ;C(3):=LOADER OFFSET+LOADER BLOCK ADDRE
000031  550101 000006               00490               HRRZ 2,6(1)         ;C(2):=LOWEST LOCATION IN SYMBOL TABLE
000032  540441 000000               00500               HRR 11,(1)          ;C(11):=JRST 4,START ADDRESS
000033  254000 000010               00510               JRST 10   ;MOVE SYSTEM TO BOTTOM OF MEMORY AND HALT
                                    00520
                                    00530               LIT
000034  251142 000000
000035  254200 000000
                                    00540
                                    00550     MAKEND:   END,
```

THERE ARE NO ERRORS

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PROGRAM BREAK IS  000036
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```
A                       000000  INT
AC1                     000015  INT
AC2                     000016  INT
AC3                     000017  INT
AL                      000001  INT
ASSCON                  400000  INT
ASSPRG                  200000  INT
B                       000014  INT
BUFPNT                  000012  INT
BUFWRD                  000013  INT
CLOSB                   002000  INT
D                       000017  INT
DAT                     000005  INT
DCL                     000001  INT
DCW                     020000  INT
DDI                     000007  INT
DDO                     000006  INT
DDTMEM                  000037  INT
DDTSYM                  000036  INT
DEN                     000004  INT
DEVADR                  000007  INT
DEVBUF                  000006  INT
DEVCHR                  000001  INT
DEVCTR                  000011  INT
DEVDAT                  000006  INT
DEVIAD                  000007  INT
DEVIOS                  000002  INT
DEVLOG                  000005  INT
DEVMOD                  000004  INT
DEVNAM                  000000  INT
DEVOAD                  000010  INT
DEVPTR                  000010  INT
DEVSER                  000003  INT
DGF                     000012  INT
DIN                     000003  INT
DLK                     000005  INT
DOU                     000002  INT
DR                      000016  INT
DRL                     000000  INT
DSI                     000011  INT
DSO                     000010  INT
DTW                     040000  INT
DVAVAL                  000040  INT
DVDIR                   000004  INT
DVDIRI                  400000  INT
DVIN                    000002  INT
DVLPT                   040000  INT
DVMTA                   000020  INT
DVOUT                   000001  INT
DVTTY                   000010  INT
ENTRB                   020000  INT
I                       000010  INT
IB                      000013  INT
IBUFB                   200000  INT
INITB                   400000  INT
```

```
INPB                    010000  INT
IO                      000020  INT
IOACT                   010000  INT
IOREG                   000002  INT
IORKTL                  040000  INT
IOCON                   000040  INT
IODEND                  020000  INT
IODERR                  200000  INT
IODISC                  400000  INT
IODONE                  400000  INT
IODTER                  100000  INT
IOEND                   000040  INT
IOFST                   000004  INT
IOIMPM                  400000  INT
IONRCK                  000100  INT
IORDEL                  000100  INT
IORET                   000020  INT
IOS                     000000  INT
IOSTRT                  000010  INT
IOUSE                   400000  INT
IOW                     000001  INT
IOWC                    000020  INT
IOWS                    400000  INT
ITEM                    000004  INT
JBFADR                  000000  INT
JBFCTR                  000002  INT
JBFPTR                  000001  INT
JBTAD1                  000000' EXT
JBTADR                  000000  EXT
JBUF                    000005  INT
JDAT                    000011  INT
JERR                    002000  INT
JIOW                    100000  INT
JNA                     004000  INT
LOOKB                   040000  INT
MAKEND                  000036' INT
MTW                     010000  INT
OBUFB                   100000  INT
OUTPB                   004000  INT
PDP                     000003  INT
PICHN                   000100  INT
PROG                    000007  INT
RUN                     200000  INT
RUNARL                  204000  INT
SYSMAK                  000000' INT
TAC                     000001  INT
TAC1                    000002  INT
TEM                     000010  INT
TTYATC                  020000  INT
TTYUSE                  010000  INT
USRMOD                  010000  INT
UUO                     000014  INT

END OF ASSEMBLY
```