```
 LOCTR  OBJECT TEXT        STMT SOURCE STATEMENT                                   COPYRIGHT IBM CORP 1976
                             3      COPY  LOG4800                ** MAP EC HISTORY **
                             4 ********************************************************************************
                             5 *                                                                              *
                             6 *                      ***       PREREQUISITES       ***                       *
                             7 *                                                                              *
                             8 *                                 NONE                                         *
                             9 *                                                                              *
                            10 ********************************************************************************
                            11 *                                                                              *
                            12 *                      ***       MODIFICATIONS       ***                       *
                            13 *                                                                              *
                            14 *  MODIFICATION'S MADE TO CORRECT PROBLEMS ENCOUNTERED DURING TESTING          *
                            15 *                                                                              *
                            16 ********************************************************************************
                            17 *                                                                              *
                            18 *                      ***     REA'S INCORPORATED    ***                       *
                            19 *                                                                              *
                            20 *                                 NONE                                         *
                            21 *                                                                              *
                            22 ********************************************************************************
                            23 *                                                                              *
                            24 *                      ***    SPECIAL INSTRUCTIONS   ***                       *
                            25 *                                                                              *
                            26 *                                 NONE                                         *
                            27 *                                                                              *
                            28 ********************************************************************************
                            29 *                                                                              *
                            30 *                      ***       E. C. HISTORY       ***                       *
                            31 *                                                                              *
                            32 *        DATE 010CT76  DATE 15MAR77  DATE 10JUN77  DATE 22JUL77                *
                            33 *        E.C. 578468   L.C. 578714   E.C. 578625   E.C. 578757                  *
                            34 *                                                                              *
                            35 ********************************************************************************
002500                      37 I4800    START X'2500'             START ADDRESS OF ALL 'I' TYPE PROG
000100                      38 @QUES    EQU   X'0100'             EQUATED VALUE FOR MDI STATEMENT
000101                      39 @FIXT    EQU   X'0101'             EQUATED VALUE FOR MDI STATEMENT
000102                      40 @STOP    EQU   X'0102'             EQUATED VALUE FOR MDI STATEMENT
000200                      41 @GOTO    EQU   X'0200'             EQUATED VALUE FOR MDI STATEMENT
000201                      42 @CALL    EQU   X'0201'             EQUATED VALUE FOR MDI STATEMENT
000300                      43 @INPT    EQU   X'0300'             EQUATED VALUE FOR MDI STATEMENT
000400                      44 @QUXX    EQU   X'0400'             EQUATED VALUE FOR MDI STATEMENT
000500                      45 @TUXX    EQU   X'0500'             EQUATED VALUE FOR MDI STATEMENT
000600                      46 @NVLD    EQU   X'0600'             EQUATED VALUE FOR MDI STATEMENT
000000                      47 EQ       EQU   X'0000'             EQUATE FOR EQUAL
000004                      48 NE       EQU   X'0004'             EQUATE FOR NOT EQUAL
000008                      49 HI       EQU   X'0008'             EQUATE FOR HIGH
00000C                      50 NH       EQU   X'000C'             EQUATE FOR NOT HIGH
000010                      51 LO       EQU   X'0010'             EQUATE FOR LOW
000014                      52 NL       EQU   X'0014'             EQUATE FOR NOT LOW
000010                      53 LT       EQU   X'0010'             EQUATE FOR LESS THAN
00000C                      54 LE       EQU   X'000C'             EQUATE FOR LESS THAN OR EQUAL TO
000008                      55 GT       EQU   X'0008'             EQUATE FOR GREATER THAN
000014                      56 GE       EQU   X'0014'             EQUATE FOR GREATER THAN OR EQUAL TO
000200                      57 CN       EQU   X'0200'             EQUATE FOR ON
000202                      58 OF       EQU   X'0202'             EQUATE FOR OFF
000204                      59 MX       EQU   X'0204'             EQUATE FOR MIXED
000000                      60 EBC      EQU   X'0000'             EQUATE FOR EBCDIC DATA TRANSFER
000001                      61 HEX      EQU   X'0001'             EQUATE FOR HEX DATA TRANSFER
000001                      62 XTRNL    EQU   X'0001'             EQUATE FOR EXTERNAL REFERENCE
000000                      63 INTRNL   EQU   X'0000'             EQUATE FOR INTERNAL REFERENCE
000000                      64 PARM     EQU   X'0000'             EQUATE INDICATING PARAMETER
000001                      65 DA       EQU   X'0001'             EQUATE FOR DEVICE ADDRESS
000002                      66 UA       EQU   X'0002'             EQUATE FOR UNIT ADDRESS
000000                      67 DUMMY    EQU   X'0000'             DUMMY EQUATE
001800                      69 PID      EQU   *-X'0D00'           ADDRESS OF MDI HEADER
001812                      70 PTYPE    EQU   *-X'22CE'           ADDRESS OF PROCESSOR TYPE FIELD
00180C                      71 STPENUM  EQU   PID+X'000C'         ADDRESS OF DECIMAL STEP NUMBER
00180E                      72 OPWD1    EQU   PID+X'000E'         ADDRESS OF OPTION WORD ONE
001810                      73 OPWD2    EQU   PID+X'0010'         ADDRESS OF OPTION WORD TWO
001818                      74 TUSTATUS EQU   PID+X'0018'         ADDRESS OF TU STATUS WORD
00181A                      75 TUWORK   EQU   PID+X'001A'         ADDRESS OF TU WORK AREA
00189A                      76 TUPARM1  EQU   PID+X'009A'         ADDRESS OF PARM 1 POINTER
00189C                      77 TUPARM2  EQU   PID+X'009C'         ADDRESS OF PARM 2 POINTER
00189E                      78 TUPARM3  EQU   PID+X'009E'         ADDRESS OF PARM 3 POINTER
0018A0                      79 TUPARM4  EQU   PID+X'00A0'         ADDRESS OF PARM 4 POINTER
0018A2                      80 TUPARM5  EQU   PID+X'00A2'         ADDRESS OF PARM 5 POINTER
0018A4                      81 TUPARM6  EQU   PID+X'00A4'         ADDRESS OF PARM 6 POINTER
0018A6                      82 TUPARM7  EQU   PID+X'00A6'         ADDRESS OF PARM 7 POINTER
0018A8                      83 TUPARM8  EQU   PID+X'00A8'         ADDRESS OF PARM 8 POINTER
0018AA                      84 TUPARM9  EQU   PID+X'00AA'         ADDRESS OF PARM 9 POINTER
0018AC                      85 TUPARM10 EQU   PID+X'00AC'         ADDRESS OF PARM 10 POINTER
0018AE                      86 TUPARM11 EQU   PID+X'00AE'         ADDRESS OF PARM 11 POINTER
0018B0                      87 TUPARM12 EQU   PID+X'00B0'         ADDRESS OF PARM 12 POINTER
0018B2                      88 TUPARM13 EQU   PID+X'00B2'         ADDRESS OF PARM 13 POINTER
0018B4                      89 TUPARM14 EQU   PID+X'00B4'         ADDRESS OF PARM 14 POINTER
0018B6                      90 TUPARM15 EQU   PID+X'00B6'         ADDRESS OF PARM 15 POINTER
0018B8                      91 TUPARM16 EQU   PID+X'00B8'         ADDRESS OF PARM 16 POINTER
0018BA                      92 TUMSGWTR EQU   PID+X'00BA'         ADDRESS OF -> TO COMMON MSG WRITER
0018BE                      93 TUUA     EQU   PID+X'00BE'         ADDRESS OF UNIT ADDRESS IN EBC
0018C0                      94 TUDA     EQU   PID+X'00C0'         ADDRESS OF DEVICE ADDRESS IN EBC
0018C2                      95 TUBUFF   EQU   PID+X'00C2'         ADDRESS OF LAST USED WORD IN MAP
0018C4                      96 TULAST   EQU   PID+X'00C4'         ADDRESS OF LAST ADDRESSABLE WORD
0018C6                      97 TURESULN EQU   PID+X'00C6'         ADDRESS OF LENGTH OF TU RESULTS
0018C8                      98 TURESUL  EQU   PID+X'00C8'         ADDRESS OF TU RESULTS FIELD
0018FC                      99 MAPNAME  EQU   PID+X'00FC'         ADDRESS OF MAP NAME FIELD IN HEX
001948                     100 TUINPT   EQU   PID+X'0148'         ADDRESS OF $INPT DATA
00196E                     101 PARMARA  EQU   PID+X'016E'         ADDRESS OF $INPT INPUT AREA
001988                     102 @LCADD1  EQU   PID+X'01B8'         MDI POINTER
00198A                     103 @DCADD2  EQU   PID+X'01BA'         MDI POINTER
0019C4                     104 SUPSTAT  EQU   PID+X'01C4'         ADDRESS OF MDI STATUS
0019D0                     105 DEVALD   EQU   PID+X'01D0'         ADDRESS OF DEVICE ADDRESS TABLE 0
0019DA                     106 DEVALD1  EQU   PID+X'01DA'         ADDRESS OF DEVICE ADDRESS TABLE 1
0019E4                     107 DEVADD2  EQU   PID+X'01E4'         ADDRESS OF DEVICE ADDRESS TABLE 2
0019EE                     108 DEVADD3  EQU   PID+X'01EE'         ADDRESS OF DEVICE ADDRESS TABLE 3
0019F8                     109 DEVADD4  EQU   PID+X'01F8'         ADDRESS OF DEVICE ADDRESS TABLE 4
001A02                     110 DEVADD5  EQU   PID+X'0202'         ADDRESS OF DEVICE ADDRESS TABLE 5
001A0C                     111 DEVALD6  EQU   PID+X'020C'         ADDRESS IF DEVICE ADDRESS TABLE 6
001A16                     112 DEVADD7  EQU   PID+X'0216'         ADDRESS OF DEVICE ADDRESS TABLE 7
                           113          PRINT OFF
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 LOCTR  OBJECT TEXT        STMT SOURCE STATEMENT                                   COPYRIGHT IBM CORP 1976
002500  2AE4               198          DC    A(ENTPT)            POINT TO MAP ENTRY POINT TABLE
                           199 ********************************************************************************
                           200 ********************************************************************************
                           201 **                                                                            **
                           202 **   THE FOLLOWING TABLES ARE USED BY THE MDI SUPERVISOR (D3C00) TO            **
                           203 **   TO LOCATE THE CORRECT RULE TO INVOKE AND TO OBTAIN THE PROPER             **
                           204 **   PARAMETERS TO PASS TO THE TU'S AND TO PASS TO THE OPERATOR                **
                           205 **   THE INDICATED MESSAGE(S). THERE ARE FOUR TABLES USED FOR THIS             **
                           206 **   PURPOSE THEY ARE:                                                        **
                           207 **                                                                            **
                           208 **   STEP AND RULE ADDRESS TABLE                                              **
                           209 **        THIS TABLE GIVES THE ADDRESS OF THE RULE TO INVOKE AND              **
                           210 **        THE ASSOCIATED STEP DECIMAL STEP NUMBER OF THAT RULE.               **
                           211 **        ENTRIES ARE AS FOLLOWES                                             **
                           212 **                  A)  AN ADDRESS OF THE RULE DC START AREA                  **
                           213 **                  B)  THE STEP NUMBER IN DECIMAL                            **
                           214 **                  C)  AN EQUATE FOR THE STEP NUMBER                         **
                           215 **                                                                            **
                           216 **   RULE INFORMATION TABLE                                                   **
                           217 **        THIS TABLE CONTAINES THE REQUIRED INFORMATION TO EXECUTE            **
                           218 **        THE APPROPRIATE RULE UNDER MDI.  EACH RULE HAS ITS OWN              **
                           219 **        UNIQUELY DEFINED AREA INDICATED BELOW. END OF TABLE IS              **
                           220 **        INDICATED WITH A X'0000' FOR THE RULE EQUATE.                       **
                           221 **                                                                            **
                           222 **        $QUES                                                               **
                           223 **                  A) RULE EQUATE X'0100'                                    **
                           224 **                  B) ADDRESS OF THE YES LEG RULE                            **
                           225 **                                                                            **
                           226 **        $FIXT                                                               **
                           227 **                  A) RULE EQUATE X'0101'                                    **
                           228 **                  B) ADDRESS OF MESSAGE TO PRINT                            **
                           229 **                                                                            **
                           230 **        $STOP                                                               **
                           231 **                  A) RULE EQUATE X'0102'                                    **
                           232 **                  B) ADDRESS OF MESSAGE                                     **
                           233 **                                                                            **
                           234 **        $GOTO                                                               **
                           235 **                  A) RULE EQUATE X'0200'                                    **
                           236 **                  B) ADDRESS OF MESSAGE                                     **
                           237 **                  C) NAME OF MAP TO GO TO                                   **
                           238 **                  D) ENTRY POINT WITHIN GO TO MAP TO USE                    **
                           239 **                  L) INDICATOR FOR EXTERNAL OR INTERNAL REFERENCE           **
                           240 **                                                                            **
                           241 **        $CALL                                                               **
                           242 **                  A) RULE EQUATE X'0201'                                    **
                           243 **                  B) ADDRESS OF MESSAGE                                     **
                           244 **                  C) NAME OF MAP TO CALL                                    **
                           245 **                  D) ENTRY POINT WITHIN CALLED MAP TO USE                   **
                           246 **                  E) INDICATOR FOR EXTERNAL OR INTERNAL REFERENCE           **
                           247 **                                                                            **
                           248 **        $INPT                                                               **
                           249 **                  A) RULE EQUATE X'0300'                                    **
                           250 **                  B) INPUT TYPE (EBCDIC OR HEX)                             **
                           251 **                  C) ADDRESS OF YES LEG RULE                                **
                           252 **                  D) DESTINATION LOCATION OF INPUT DATA                     **
                           253 **                  E) LENGTH OF INPUT DATA                                   **
                           254 **                  F) LOWER LIMIT OF GOOD DATA                               **
                           255 **                  G) HIGHER LIMIT OF GOOD DATA                              **
                           256 **                                                                            **
                           257 **        $QUXX                                                               **
                           258 **                  A) RULE EQUATE X'0400'                                    **
                           259 **                  B) ADDRESS OF YES LEG RULE                                **
                           260 **                  C) TU BRANCH TO ADDRESS (INITIAL)                         **
                           261 **                  D) TU BRANCH TO ADDRESS (SECONDARY)                       **
                           262 **                  E) LENGTH OF PARAMETER IN BYTES                           **
                           263 **                  F) PARAMETER TO PASS TO TU                                **
                           264 **                  G) STORE ADDRESS FOR FIRST 8 WORDS OF PARAMETER           **
                           265 **                                                                            **
                           266 **        $TUXX                                                               **
                           267 **                  A) RULE EQUATE X'0500'                                    **
                           268 **                  B) ADDRESS OF YES LEG RULE                                **
                           269 **                  C) TU BRANCH TO ADDRESS                                   **
                           270 **                  D) TYPE OF COMPARE TO MAKE ON RESULTS                     **
                           271 **                  E) LENGTH OF COMPARED RESULTS                             **
                           272 **                  F) MASK FIELD FOR COMPARE                                 **
                           273 **                  G) LENGTH OF PARAMETER IN BYTLS                           **
                           274 **                  H) PARAMETER TO PASS TO THE TU                            **
                           275 **                  I) STORE ADDRESS FOR FIRST 8 WORDS OF PARAMETER           **
                           276 **                                                                            **
                           277 **        $NVLD                                                               **
                           278 **                  A) RULE EQUATE X'0600'                                    **
                           279 **                                                                            **
                           280 **   ENTRY POINT TABLE                                                        **
                           281 **        THIS TABLE CONTAINS THE ENTRY POINTS WITHIN THE MAP THAT             **
                           282 **        THE MAP CAN BE ENTERED FROM THESE ENTRY POINTS ARE                  **
                           283 **        REFERENCED BY NAME AND ADDRESS. ENTRIES ARE AS FOLLOWES:            **
                           284 **                                                                            **
                           285 **            A) NAME OF ENTRY POINT                                          **
                           286 **            B) ADDRESS OF ENTRY POINT RULE TABLE                            **
                           287 **                                                                            **
                           288 **        THE ENTRY POINT TABLE END IS INDICATED BY A X'0000'                 **
                           289 **                                                                            **
                           290 **   MESSAGE TABLE                                                            **
                           291 **        THIS TABLE CONTAINES THE MESSAGE PASSED TO THE OPERATOR             **
                           292 **        VIA THE MDI SUPERVISOR. THE TABLE IS AS FOLLOWES:                   **
                           293 **                                                                            **
                           294 **            A) EQUATE FOR START OF MESSAGE BLOCK                            **
                           295 **            B) NUMBER OF LINES OF MESSAGE                                   **
                           296 **            C) LENGTH OF FOLLOWING LINE                                     **
                           297 **            D) FIRST LINE OF MESSAGE                                        **
                           298 **            E) LENGTH OF FOLLOWING LINE                                     **
                           299 **            F) SECOND LINE OF MESSAGE                                       **
                           300 **            G) ETC.                                                         **
                           301 **                                                                            **
                           302 **                                                                            **
                           303 **                                                                            **
                           304 ********************************************************************************
                           305 ********************************************************************************
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LOCTR  OBJECT TEXT   STMT SOURCE STATEMENT
                      308 ********************************************************************************
                      309 ********************************************************************************
                      310 **                                                                            **
                      311 **                    STEP AND RULE ADDRESS TABLE                             **
                      312 **                                                                            **
                      313 ********************************************************************************
                      314 ********************************************************************************
002502  2688          315          DC    AL2(N00001)
002504  0001          316          DC    XL2'0001'
000001                317 EQN00001 EQU       0001
002506  267E          318          DC    AL2(N00002)
002508  0002          319          DC    XL2'0002'
000002                320 EQN00002 EQU       0002
00250A  2682          321          DC    AL2(N00003)
00250C  0003          322          DC    XL2'0003'
000003                323 EQN00003 EQU       0003
00250E  2698          324          DC    AL2(N00004)
002510  0004          325          DC    XL2'0004'
000004                326 EQN00004 EQU       0004
002512  26AA          327          DC    AL2(N00005)
002514  0005          328          DC    XL2'0005'
000005                329 EQN00005 EQU       0005
002516  26AE          330          DC    AL2(N00006)
002518  0006          331          DC    XL2'0006'
000006                332 EQN00006 EQU       0006
00251A  26C6          333          DC    AL2(N00007)
00251C  0007          334          DC    XL2'0007'
000007                335 EQN00007 EQU       0007
00251E  26CA          336          DC    AL2(N00008)
002520  0008          337          DC    XL2'0008'
000008                338 EQN00008 EQU       0008
002522  26CE          339          DC    AL2(N00009)
002524  0009          340          DC    XL2'0009'
000009                341 EQN00009 EQU       0009
002526  26E2          342          DC    AL2(N00010)
002528  0010          343          DC    XL2'0010'
00000A                344 EQN00010 EQU       0010
00252A  26E6          345          DC    AL2(N00011)
00252C  0011          346          DC    XL2'0011'
00000B                347 EQN00011 EQU       0011
00252E  26FC          348          DC    AL2(N00012)
002530  0012          349          DC    XL2'0012'
00000C                350 EQN00012 EQU       0012
002532  270E          351          DC    AL2(N00013)
002534  0013          352          DC    XL2'0013'
00000D                353 EQN00013 EQU       0013
002536  2720          354          DC    AL2(N00014)
002538  0014          355          DC    XL2'0014'
00000E                356 EQN00014 EQU       0014
00253A  2732          357          DC    AL2(N00015)
00253C  0015          358          DC    XL2'0015'
00000F                359 EQN00015 EQU       0015
00253E  273C          360          DC    AL2(N00016)
002540  0016          361          DC    XL2'0016'
000010                362 EQN00016 EQU       0016
002542  274A          363          DC    AL2(N00017)
002544  0017          364          DC    XL2'0017'
000011                365 EQN00017 EQU       0017
002546  274E          366          DC    AL2(N00018)
002548  0018          367          DC    XL2'0018'
000012                368 EQN00018 EQU       0018
00254A  2766          369          DC    AL2(N00019)
00254C  0019          370          DC    XL2'0019'
000013                371 EQN00019 EQU       0019
00254E  276A          372          DC    AL2(N00020)
002550  0020          373          DC    XL2'0020'
000014                374 EQN00020 EQU       0020
002552  2776          375          DC    AL2(N00021)
002554  0021          376          DC    XL2'0021'
000015                377 EQN00021 EQU       0021
002556  277A          378          DC    AL2(N00022)
002558  0022          379          DC    XL2'0022'
000016                380 EQN00022 EQU       0022
00255A  277E          381          DC    AL2(N00023)
00255C  0023          382          DC    XL2'0023'
000017                383 EQN00023 EQU       0023
00255E  2792          384          DC    AL2(N00024)
002560  0024          385          DC    XL2'0024'
000018                386 EQN00024 EQU       0024
002562  2796          387          DC    AL2(N00025)
002564  0025          388          DC    XL2'0025'
000019                389 EQN00025 EQU       0025
002566  27AC          390          DC    AL2(N00026)
002568  0026          391          DC    XL2'0026'
00001A                392 EQN00026 EQU       0026
00256A  27B0          393          DC    AL2(N00027)
00256C  0027          394          DC    XL2'0027'
00001B                395 EQN00027 EQU       0027
00256E  27C6          396          DC    AL2(N00028)
002570  0028          397          DC    XL2'0028'
00001C                398 EQN00028 EQU       0028
002572  27CA          399          DC    AL2(N00029)
002574  0029          400          DC    XL2'0029'
00001D                401 EQN00029 EQU       0029
002576  27E0          402          DC    AL2(N00030)
002578  0030          403          DC    XL2'0030'
00001E                404 EQN00030 EQU       0030
00257A  27E4          405          DC    AL2(N00031)
00257C  0031          406          DC    XL2'0031'
00001F                407 EQN00031 EQU       0031
00257E  27FA          408          DC    AL2(N00032)
002580  0032          409          DC    XL2'0032'
000020                410 EQN00032 EQU       0032
002582  27FE          411          DC    AL2(N00033)
002584  0033          412          DC    XL2'0033'
000021                413 EQN00033 EQU       0033
002586  2814          414          DC    AL2(N00034)
002588  0034          415          DC    XL2'0034'
000022                416 EQN00034 EQU       0034
00258A  2818          417          DC    AL2(N00035)
00258C  0035          418          DC    XL2'0035'
000023                419 EQN00035 EQU       0035
00258E  282E          420          DC    AL2(N00036)
002590  0036          421          DC    XL2'0036'
000024                422 EQN00036 EQU       0036
002592  2832          423          DC    AL2(N00037)
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LOCTR  OBJECT TEXT   STMT SOURCE STATEMENT
002594  0037          424          DC    XL2'0037'
000025                425 EQN00037 EQU       0037
002596  2848          426          DC    AL2(N00038)
002598  0038          427          DC    XL2'0038'
000026                428 EQN00038 EQU       0038
00259A  284C          429          DC    AL2(N00039)
00259C  0039          430          DC    XL2'0039'
000027                431 EQN00039 EQU       0039
00259E  2862          432          DC    AL2(N00040)
0025A0  0040          433          DC    XL2'0040'
000028                434 EQN00040 EQU       0040
0025A2  2866          435          DC    AL2(N00041)
0025A4  0041          436          DC    XL2'0041'
000029                437 EQN00041 EQU       0041
0025A6  287C          438          DC    AL2(N00042)
0025A8  0042          439          DC    XL2'0042'
00002A                440 EQN00042 EQU       0042
0025AA  2880          441          DC    AL2(N00043)
0025AC  0043          442          DC    XL2'0043'
00002B                443 EQN00043 EQU       0043
0025AE  2894          444          DC    AL2(N00044)
0025B0  0044          445          DC    XL2'0044'
00002C                446 EQN00044 EQU       0044
0025B2  2898          447          DC    AL2(N00045)
0025B4  0045          448          DC    XL2'0045'
00002D                449 EQN00045 EQU       0045
0025B6  28AA          450          DC    AL2(N00046)
0025B8  0046          451          DC    XL2'0046'
00002E                452 EQN00046 EQU       0046
0025BA  28AE          453          DC    AL2(N00047)
0025BC  0047          454          DC    XL2'0047'
00002F                455 EQN00047 EQU       0047
0025BE  28C4          456          DC    AL2(N00048)
0025C0  0048          457          DC    XL2'0048'
000030                458 EQN00048 EQU       0048
0025C2  28C8          459          DC    AL2(N00049)
0025C4  0049          460          DC    XL2'0049'
000031                461 EQN00049 EQU       0049
0025C6  28DE          462          DC    AL2(N00050)
0025C8  0050          463          DC    XL2'0050'
000032                464 EQN00050 EQU       0050
0025CA  28E2          465          DC    AL2(N00051)
0025CC  0051          466          DC    XL2'0051'
000033                467 EQN00051 EQU       0051
0025CE  28F4          468          DC    AL2(N00052)
0025D0  0052          469          DC    XL2'0052'
000034                470 EQN00052 EQU       0052
0025D2  28F8          471          DC    AL2(N00053)
0025D4  0053          472          DC    XL2'0053'
000035                473 EQN00053 EQU       0053
0025D6  290E          474          DC    AL2(N00054)
0025D8  0054          475          DC    XL2'0054'
000036                476 EQN00054 EQU       0054
0025DA  2912          477          DC    AL2(N00055)
0025DC  0055          478          DC    XL2'0055'
000037                479 EQN00055 EQU       0055
0025DE  2926          480          DC    AL2(N00056)
0025E0  0056          481          DC    XL2'0056'
000038                482 EQN00056 EQU       0056
0025E2  292A          483          DC    AL2(N00057)
0025E4  0057          484          DC    XL2'0057'
000039                485 EQN00057 EQU       0057
0025E6  2940          486          DC    AL2(N00058)
0025E8  0058          487          DC    XL2'0058'
00003A                488 EQN00058 EQU       0058
0025EA  2944          489          DC    AL2(N00059)
0025EC  0059          490          DC    XL2'0059'
00003B                491 EQN00059 EQU       0059
0025EE  2956          492          DC    AL2(N00060)
0025F0  0060          493          DC    XL2'0060'
00003C                494 EQN00060 EQU       0060
0025F2  295A          495          DC    AL2(N00061)
0025F4  0061          496          DC    XL2'0061'
00003D                497 EQN00061 EQU       0061
0025F6  2970          498          DC    AL2(N00062)
0025F8  0062          499          DC    XL2'0062'
00003E                500 EQN00062 EQU       0062
0025FA  2974          501          DC    AL2(N00063)
0025FC  0063          502          DC    XL2'0063'
00003F                503 EQN00063 EQU       0063
0025FE  2988          504          DC    AL2(N00064)
002600  0064          505          DC    XL2'0064'
000040                506 EQN00064 EQU       0064
002602  298C          507          DC    AL2(N00065)
002604  0065          508          DC    XL2'0065'
000041                509 EQN00065 EQU       0065
002606  29A2          510          DC    AL2(N00066)
002608  0066          511          DC    XL2'0066'
000042                512 EQN00066 EQU       0066
00260A  29A6          513          DC    AL2(N00067)
00260C  0067          514          DC    XL2'0067'
000043                515 EQN00067 EQU       0067
00260E  29B8          516          DC    AL2(N00068)
002610  0068          517          DC    XL2'0068'
000044                518 EQN00068 EQU       0068
002612  29BC          519          DC    AL2(N00069)
002614  0069          520          DC    XL2'0069'
000045                521 EQN00069 EQU       0069
002616  29D2          522          DC    AL2(N00070)
002618  0070          523          DC    XL2'0070'
000046                524 EQN00070 EQU       0070
00261A  29D6          525          DC    AL2(N00071)
00261C  0071          526          DC    XL2'0071'
000047                527 EQN00071 EQU       0071
00261E  29EA          528          DC    AL2(N00072)
002620  0072          529          DC    XL2'0072'
000048                530 EQN00072 EQU       0072
002622  29EE          531          DC    AL2(N00073)
002624  0073          532          DC    XL2'0073'
000049                533 EQN00073 EQU       0073
002626  2A00          534          DC    AL2(N00074)
002628  0074          535          DC    XL2'0074'
00004A                536 EQN00074 EQU       0074
00262A  2A04          537          DC    AL2(N00075)
00262C  0075          538          DC    XL2'0075'
00004B                539 EQN00075 EQU       0075
```

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LOCTR  OBJECT TEXT      STMT SOURCE STATEMENT
002625  2A16                540          DC    AL2(N00076)
002630  0076                541          DC    XL2'0076'
00004C                      542 EQN00076 EQU       0076
002632  2A22                543          DC    AL2(N00077)
002634  0077                544          DC    XL2'0077'
00004D                      545 EQN00077 EQU       0077
002636  2A34                546          DC    AL2(N00078)
002638  0078                547          DC    XL2'0078'
00004E                      548 EQN00078 EQU       0078
00263A  2A38                549          DC    AL2(N00079)
00263C  0079                550          DC    XL2'0079'
00004F                      551 EQN00079 EQU       0079
00263E  2A4A                552          DC    AL2(N00080)
002640  0080                553          DC    XL2'0080'
000050                      554 EQN00080 EQU       0080
002642  2A56                555          DC    AL2(N00081)
002644  0081                556          DC    XL2'0081'
000051                      557 EQN00081 EQU       0081
002646  2A68                558          DC    AL2(N00082)
002648  0082                559          DC    XL2'0082'
000052                      560 EQN00082 EQU       0082
00264A  2A6C                561          DC    AL2(N00083)
00264C  0083                562          DC    XL2'0083'
000053                      563 EQN00083 EQU       0083
00264E  2A7E                564          DC    AL2(N00084)
002650  0084                565          DC    XL2'0084'
000054                      566 EQN00084 EQU       0084
002652  2A8A                567          DC    AL2(N00085)
002654  0085                568          DC    XL2'0085'
000055                      569 EQN00085 EQU       0085
002656  2AA4                570          DC    AL2(N00086)
002658  0086                571          DC    XL2'0086'
000056                      572 EQN00086 EQU       0086
00265A  2AB0                573          DC    AL2(N00087)
00265C  0087                574          DC    XL2'0087'
000057                      575 EQN00087 EQU       0087
00265E  2ACA                576          DC    AL2(N00088)
002660  0088                577          DC    XL2'0088'
000058                      578 EQN00088 EQU       0088
002662  2AD6                579          DC    AL2(N00089)
002664  0089                580          DC    XL2'0089'
000059                      581 EQN00089 EQU       0089
002666  0000                582          DC    AL2(DUMMY)
                            583 ********************************************************************************
                            584 ********************************************************************************
                            585 **                                                                            **
                            586 **                          RULE INFORMATION TABLE                            **
                            587 **                                                                            **
                            588 ********************************************************************************
                            589 ********************************************************************************
002668  0500                590 N00001   $TUXX T3CC0,02,0708,EQ,PLNG=6,PARM=F00000,QT=(Q00044),       X
002668  0500                591+N00001   DC    A(@TUXX)
00266A  2682                592+         DC    AL2(N00003)
00266C  3476                593+         DC    A(T3C00)
00266E  0000                594+         DC    AL2(EQ)
002670  0002                595+         DC    AL2(02)
002672  0708                596+         DC    X'0708'
                            597+         ALIGN WORD
002674  0006                598+         DC    AL2(6)
002676  C6F0F0F0F0F0        599+         DC    C'F00000'
                            600+         ALIGN WORD
00267C  196E                601+         DC     AL2(PARMARA)
                            602 N00002   $FIXT FT=(F00008),GTO=((0070,A))
00267E  0101                603+N00002   DC    A(@FIXT)
002680  2AF2                604+         DC    A(F00008)
                            605 N00003   $TUXX T3C00,02,0708,EQ,PLNG=6,PARM=6F0000,QT=(Q00051),       X
002682  0500                606+N00003   DC    A(@TUXX)
002684  26CE                607+         DC    AL2(N00009)
002686  3476                608+         DC    A(T3C00)
002688  0000                609+         DC    AL2(EQ)
00268A  0002                610+         DC    AL2(02)
00268C  0708                611+         DC    X'0708'
                            612+         ALIGN WORD
00268E  0006                613+         DC    AL2(6)
002690  F6C6F0F0F0F0        614+         DC    C'6F0000'
                            615+         ALIGN WORD
002696  196E                616+         DC     AL2(PARMARA)
                            617 N00004   $TUXX T3C02,02,0008,EQ,,QT=(Q00054),YES=N00006
002698  0500                618+N00004   DC    A(@TUXX)
00269A  26AE                619+         DC    AL2(N00006)
00269C  2EF6                620+         DC    A(T3C02)
00269E  0000                621+         DC    AL2(EQ)
0026A0  0002                622+         DC    AL2(02)
0026A2  0008                623+         DC    X'0008'
                            624+         ALIGN WORD
0026A4  0000                625+         DC    AL2(0)
0026A6  C1C1                626+         DC    C'AA'
                            627+         ALIGN WORD
0026A8  196E                628+         DC     AL2(PARMARA)
                            629 N00005   $FIXT FT=(F00014)
0026AA  0101                630+N00005   DC    A(@FIXT)
0026AC  2B1E                631+         DC    A(F00014)
                            632 N00006   $TUXX T3C00,04,00080000,EQ,PLNG=6,PARM=200000,QT=(Q00059),       X
0026AE  0500                633+N00006   DC    A(@TUXX)
0026B0  26CA                634+         DC    AL2(N00008)
0026B2  3476                635+         DC    A(T3C00)
0026B4  0000                636+         DC    AL2(EQ)
0026B6  0004                637+         DC    AL2(04)
0026B8  00080000            638+         DC    X'00080000'
                            639+         ALIGN WORD
0026BC  0006                640+         DC    AL2(6)
0026BE  F2F0F0F0F0F0        641+         DC    C'200000'
                            642+         ALIGN WORD
0026C4  196E                643+         DC     AL2(PARMARA)
                            644 N00007   $FIXT FT=(F00014)
0026C6  0101                645+N00007   DC    A(@FIXT)
0026C8  2B1E                646+         DC    A(F00014)
                            647 N00008   $FIXT FT=(F00064)
0026CA  0101                648+N00008   DC    A(@FIXT)
0026CC  2BEE                649+         DC    A(F00064)
                            650 N00009   $TUXX T3C01,02,0708,EQ,PLNG=4,PARM=FFFF,QT=(Q00071),       X
0026CE  0500                651+N00009   DC    A(@TUXX)
0026D0  26E6                652+         DC    AL2(N00011)
0026D2  34EA                653+         DC    A(T3C01)
0026D4  0000                654+         DC    AL2(EQ)
0026D6  0002                655+         DC    AL2(02)
```



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LOCTR  OBJECT TEXT      STMT SOURCE STATEMENT
0026D8  0708                656+         DC    X'0708'
                            657+         ALIGN WORD
0026DA  0004                658+         DC    AL2(4)
0026DC  C6C6C6C6            659+         DC    C'FFFF'
                            660+         ALIGN WORD
0026E0  196E                661+         DC     AL2(PARMARA)
                            662 N00010   $FIXT FT=(F00014)
0026E2  0101                663+N00010   DC    A(@FIXT)
0026E4  2B1E                664+         DC    A(F00014)
                            665 N00011   $TUXX T3C00,02,0708,EQ,PLNG=6,PARM=200000,QT=(Q00077),       X
0026E6  0500                666+N00011   DC    A(@TUXX)
0026E8  277E                667+         DC    AL2(N00023)
0026EA  3476                668+         DC    A(T3C00)
0026EC  0000                669+         DC    AL2(EQ)
0026EE  0002                670+         DC    AL2(02)
0026F0  0708                671+         DC    X'0708'
                            672+         ALIGN WORD
0026F2  0006                673+         DC    AL2(6)
0026F4  F2F0F0F0F0F0        674+         DC    C'200000'
                            675+         ALIGN WORD
0026FA  196E                676+         DC     AL2(PARMARA)
                            677 N00012   $TUXX T3C02,02,0508,EQ,QT=(Q00080),YES=N00022,ST=(S00037)
0026FC  0500                678+N00012   DC    A(@TUXX)
0026FE  277A                679+         DC    AL2(N00022)
002700  2EF6                680+         DC    A(T3C02)
002702  0000                681+         DC    AL2(EQ)
002704  0002                682+         DC    AL2(02)
002706  0508                683+         DC    X'0508'
                            684+         ALIGN WORD
002708  0000                685+         DC    AL2(0)
00270A  C1C1                686+         DC    C'AA'
                            687+         ALIGN WORD
00270C  196E                688+         DC     AL2(PARMARA)
                            689 N00013   $TUXX T3C02,02,0308,EQ,QT=(Q00083),YES=N00021,ST=(S00037)
00270E  0500                690+N00013   DC    A(@TUXX)
002710  2776                691+         DC    AL2(N00021)
002712  2EF6                692+         DC    A(T3C02)
002714  0000                693+         DC    AL2(EQ)
002716  0002                694+         DC    AL2(02)
002718  0308                695+         DC    X'0308'
                            696+         ALIGN WORD
00271A  0000                697+         DC    AL2(0)
00271C  C1C1                698+         DC    C'AA'
                            699+         ALIGN WORD
00271E  196E                700+         DC     AL2(PARMARA)
                            701 N00014   $TUXX T3C02,02,0208,EQ,QT=(Q00086),YES=N00016,ST=(S00037)
002720  0500                702+N00014   DC    A(@TUXX)
002722  2736                703+         DC    AL2(N00016)
002724  2EF6                704+         DC    A(T3C02)
002726  0000                705+         DC    AL2(EQ)
002728  0002                706+         DC    AL2(02)
00272A  0208                707+         DC    X'0208'
                            708+         ALIGN WORD
00272C  0000                709+         DC    AL2(0)
00272E  C1C1                710+         DC    C'AA'
                            711+         ALIGN WORD
002730  196E                712+         DC     AL2(PARMARA)
                            713 N00015   $FIXT FT=(F00014)
002732  0101                714+N00015   DC    A(@FIXT)
002734  2B1E                715+         DC    A(F00014)
                            716 N00016   $TUXX T3C01,02,0208,EQ,PLNG=4,PARM=FFFF,QT=(Q00092),       X
002736  0500                717+N00016   DC    A(@TUXX)
002738  274E                718+         DC    AL2(N00018)
00273A  34EA                719+         DC    A(T3C01)
00273C  0000                720+         DC    AL2(EQ)
00273E  0002                721+         DC    AL2(02)
002740  0208                722+         DC    X'0208'
                            723+         ALIGN WORD
002742  0004                724+         DC    AL2(4)
002744  C6C6C6C6            725+         DC    C'FFFF'
                            726+         ALIGN WORD
002748  196E                727+         DC     AL2(PARMARA)
                            728 N00017   $FIXT FT=(F00014)
00274A  0101                729+N00017   DC    A(@FIXT)
00274C  2B1E                730+         DC    A(F00014)
                            731 N00018   $TUXX T3C00,04,07080000,EQ,PLNG=6,PARM=200000,QT=(Q00098),       X
00274E  0500                732+N00018   DC    A(@TUXX)
002750  276A                733+         DC    AL2(N00020)
002752  3476                734+         DC    A(T3C00)
002754  0000                735+         DC    AL2(EQ)
002756  0004                736+         DC    AL2(04)
002758  07080000            737+         DC    X'07080000'
                            738+         ALIGN WORD
00275C  0006                739+         DC    AL2(6)
00275E  F2F0F0F0F0F0        740+         DC    C'200000'
                            741+         ALIGN WORD
002764  196E                742+         DC     AL2(PARMARA)
                            743 N00019   $FIXT FT=(F00014)
002766  0101                744+N00019   DC    A(@FIXT)
002768  2B1E                745+         DC    A(F00014)
                            746 N00020   $GOTO TYPE=INTRNL,EP=C,FT=(F00103),GTO=(N00023)
00276A  0200                747+N00020   DC    A(@GOTO)
00276C  2C96                748+         DC    A(F00103)
00276E  F3C3F0F0            749+         DC    CL4'3C00'
002772  C340                750+         DC    CL2'C'
002774  0000                751+         DC    AL2(INTRNL)
                            752 N00021   $FIXT FT=(F00010),CT=(C00041)
002776  0101                753+N00021   DC    A(@FIXT)
002778  2CBC                754+         DC    A(F00010)
                            755 N00022   $FIXT FT=(F00012),CT=(C00041)
00277A  0101                756+N00022   DC    A(@FIXT)
00277C  2CEC                757+         DC    A(F00012)
                            758 N00023   $TUXX T3C02,04,07080000,EQ,QT=(Q00112),YES=N00025,ST=(S00037)
00277E  0500                759+N00023   DC    A(@TUXX)
002780  2796                760+         DC    AL2(N00025)
002782  2EF6                761+         DC    A(T3C02)
002784  0000                762+         DC    AL2(EQ)
002786  0004                763+         DC    AL2(04)
002788  07080000            764+         DC    X'07080000'
                            765+         ALIGN WORD
00278C  0000                766+         DC    AL2(0)
00278E  C1C1                767+         DC    C'AA'
                            768+         ALIGN WORD
002790  196E                769+         DC     AL2(PARMARA)
                            770 N00024   $FIXT FT=(F00014)
002792  0101                771+N00024   DC    A(@FIXT)
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 LOCTR  OBJECT TEXT      STMT SOURCE STATEMENT
002794  2B1E             772+        DC    A(F00014)
                         773 N00025  $TUXX T3C00,02,0308,EQ,PLNG=6,PARM=000000,QT=(Q00119),      X
002796  0500             774+N00025  DC    A(@TUXX)
002798  27B0             775+        DC    AL2(N00027)
00279A  3476             776+        DC    A(T3C00)
00279C  0000             777+        DC    AL2(EQ)
00279E  0002             778+        DC    AL2(02)
0027A0  0308             779+        DC    X'0308'
                         780+        ALIGN WORD
0027A2  0006             781+        DC    AL2(6)
0027A4  F0F0F0F0F0F0     782+        DC    C'000000'
                         783+        ALIGN WORD
0027AA  196E             784+        DC     AL2(PARMARA)
                         785 N00026  $FIXT FT=(F00014)
0027AC  0101             786+N00026  DC    A(@FIXT)
0027AE  2B1E             787+        DC    A(F00014)
                         788 N00027  $TUXX T3C00,02,0308,EQ,PLNG=6,PARM=100000,QT=(Q00126),      X
0027B0  0500             789+N00027  DC    A(@TUXX)
0027B2  27CA             790+        DC    AL2(N00029)
0027B4  3476             791+        DC    A(T3C00)
0027B6  0000             792+        DC    AL2(EQ)
0027B8  0002             793+        DC    AL2(02)
0027BA  0308             794+        DC    X'0308'
                         795+        ALIGN WORD
0027BC  0006             796+        DC    AL2(6)
0027BE  F1F0F0F0F0F0     797+        DC    C'100000'
                         798+        ALIGN WORD
0027C4  196E             799+        DC     AL2(PARMARA)
                         800 N00028  $FIXT FT=(F00014)
0027C6  0101             801+N00028  DC    A(@FIXT)
0027C8  2B1E             802+        DC    A(F00014)
                         803 N00029  $TUXX T3C00,02,0308,EQ,PLNG=6,PARM=270000,QT=(Q00133),      X
0027CA  0500             804+N00029  DC    A(@TUXX)
0027CC  27E4             805+        DC    AL2(N00031)
0027CE  3476             806+        DC    A(T3C00)
0027D0  0000             807+        DC    AL2(EQ)
0027D2  0002             808+        DC    AL2(02)
0027D4  0308             809+        DC    X'0308'
                         810+        ALIGN WORD
0027D6  0006             811+        DC    AL2(6)
0027D8  F2F7F0F0F0F0     812+        DC    C'270000'
                         813+        ALIGN WORD
0027DE  196E             814+        DC     AL2(PARMARA)
                         815 N00030  $FIXT FT=(F00014)
0027E0  0101             816+N00030  DC    A(@FIXT)
0027E2  2B1E             817+        DC    A(F00014)
                         818 N00031  $TUXX T3C00,02,0708,EQ,PLNG=6,PARM=600000,QT=(Q00140),      X
0027E4  0500             819+N00031  DC    A(@TUXX)
0027E6  27FE             820+        DC    AL2(N00033)
0027E8  3476             821+        DC    A(T3C00)
0027EA  0000             822+        DC    AL2(EQ)
0027EC  0002             823+        DC    AL2(02)
0027EE  0708             824+        DC    X'0708'
                         825+        ALIGN WORD
0027F0  0006             826+        DC    AL2(6)
0027F2  F6F0F0F0F0F0     827+        DC    C'600000'
                         828+        ALIGN WORD
0027F8  196E             829+        DC     AL2(PARMARA)
                         830 N00032  $FIXT FT=(F00014)
0027FA  0101             831+N00032  DC    A(@FIXT)
0027FC  2B1E             832+        DC    A(F00014)
                         833 N00033  $TUXX T3C00,02,0708,EQ,PLNG=6,PARM=602222,QT=(Q00147),      X
0027FE  0500             834+N00033  DC    A(@TUXX)
002800  2818             835+        DC    AL2(N00035)
002802  3476             836+        DC    A(T3C00)
002804  0000             837+        DC    AL2(EQ)
002806  0002             838+        DC    AL2(02)
002808  0708             839+        DC    X'0708'
                         840+        ALIGN WORD
00280A  0006             841+        DC    AL2(6)
00280C  F6F0F2F2F2F2     842+        DC    C'602222'
                         843+        ALIGN WORD
002812  196E             844+        DC     AL2(PARMARA)
                         845 N00034  $FIXT FT=(F00014)
002814  0101             846+N00034  DC    A(@FIXT)
002816  2B1E             847+        DC    A(F00014)
                         848 N00035  $TUXX T3C00,02,0708,EQ,PLNG=6,PARM=60FFFE,QT=(Q00154),      X
002818  0500             849+N00035  DC    A(@TUXX)
00281A  2832             850+        DC    AL2(N00037)
00281C  3476             851+        DC    A(T3C00)
00281E  0000             852+        DC    AL2(EQ)
002820  0002             853+        DC    AL2(02)
002822  0708             854+        DC    X'0708'
                         855+        ALIGN WORD
002824  0006             856+        DC    AL2(6)
002826  F6F0C6C6C6C5     857+        DC    C'60FFFE'
                         858+        ALIGN WORD
00282C  196E             859+        DC     AL2(PARMARA)
                         860 N00036  $FIXT FT=(F00014)
00282E  0101             861+N00036  DC    A(@FIXT)
002830  2B1E             862+        DC    A(F00014)
                         863 N00037  $TUXX T3C00,02,0308,EQ,PLNG=6,PARM=650000,QT=(Q00161),      X
002832  0500             864+N00037  DC    A(@TUXX)
002834  284C             865+        DC    AL2(N00039)
002836  3476             866+        DC    A(T3C00)
002838  0000             867+        DC    AL2(EQ)
00283A  0002             868+        DC    AL2(02)
00283C  0308             869+        DC    X'0308'
                         870+        ALIGN WORD
00283E  0006             871+        DC    AL2(6)
002840  F6F5F0F0F0F0     872+        DC    C'650000'
                         873+        ALIGN WORD
002846  196E             874+        DC     AL2(PARMARA)
                         875 N00038  $FIXT FT=(F00014)
002848  0101             876+N00038  DC    A(@FIXT)
00284A  2B1E             877+        DC    A(F00014)
                         878 N00039  $TUXX T3C00,02,0708,EQ,PLNG=6,PARM=510000,QT=(Q00168),      X
00284C  0500             879+N00039  DC    A(@TUXX)
00284E  2866             880+        DC    AL2(N00041)
002850  3476             881+        DC    A(T3C00)
002852  0000             882+        DC    AL2(EQ)
002854  0002             883+        DC    AL2(02)
002856  0708             884+        DC    X'0708'
                         885+        ALIGN WORD
002858  0006             886+        DC    AL2(6)
00285A  F5F1F0F0F0F0     887+        DC    C'510000'
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 LOCTR  OBJECT TEXT      STMT SOURCE STATEMENT
                         888+        ALIGN WORD
002860  196E             889+        DC     AL2(PARMARA)
                         890 N00040  $FIXT FT=(F00014)
002862  0101             891+N00040  DC    A(@FIXT)
002864  2B1E             892+        DC    A(F00014)
                         893 N00041  $TUXX T3C00,02,0108,EQ,PLNG=6,PARM=510000,QT=(Q00175),      X
002866  0500             894+N00041  DC    A(@TUXX)
002868  2880             895+        DC    AL2(N00043)
00286A  3476             896+        DC    A(T3C00)
00286C  0000             897+        DC    AL2(EQ)
00286E  0002             898+        DC    AL2(02)
002870  0108             899+        DC    X'0108'
                         900+        ALIGN WORD
002872  0006             901+        DC    AL2(6)
002874  F5F1F0F0F0F0     902+        DC    C'510000'
                         903+        ALIGN WORD
00287A  196E             904+        DC     AL2(PARMARA)
                         905 N00042  $FIXT FT=(F00014)
00287C  0101             906+N00042  DC    A(@FIXT)
00287E  2B1E             907+        DC    A(F00014)
                         908 N00043  $TUXX T3C01,02,0708,EQ,PLNG=4,PARM=FFFF,QT=(Q00181),      X
002880  0500             909+N00043  DC    A(@TUXX)
002882  2898             910+        DC    AL2(N00045)
002884  34EA             911+        DC    A(T3C01)
002886  0000             912+        DC    AL2(EQ)
002888  0002             913+        DC    AL2(02)
00288A  0708             914+        DC    X'0708'
                         915+        ALIGN WORD
00288C  0004             916+        DC    AL2(4)
00288E  C6C6C6C6         917+        DC    C'FFFF'
                         918+        ALIGN WORD
002892  196E             919+        DC     AL2(PARMARA)
                         920 N00044  $FIXT FT=(F00014)
002894  0101             921+N00044  DC    A(@FIXT)
002896  2B1E             922+        DC    A(F00014)
                         923 N00045  $TUXX T3C02,02,0708,EQ,QT=(Q00186),YES=N00047,ST=(S00037)
002898  0500             924+N00045  DC    A(@TUXX)
00289A  28AE             925+        DC    AL2(N00047)
00289C  2EF6             926+        DC    A(T3C02)
00289E  0000             927+        DC    AL2(EQ)
0028A0  0002             928+        DC    AL2(02)
0028A2  0708             929+        DC    X'0708'
                         930+        ALIGN WORD
0028A4  0000             931+        DC    AL2(0)
0028A6  C1C1             932+        DC    C'AA'
                         933+        ALIGN WORD
0028A8  196E             934+        DC     AL2(PARMARA)
                         935 N00046  $FIXT FT=(F00014)
0028AA  0101             936+N00046  DC    A(@FIXT)
0028AC  2B1E             937+        DC    A(F00014)
                         938 N00047  $TUXX T3C00,02,0708,EQ,PLNG=6,PARM=6F0000,QT=(Q00193),      X
0028AE  0500             939+N00047  DC    A(@TUXX)
0028B0  28C8             940+        DC    AL2(N00049)
0028B2  3476             941+        DC    A(T3C00)
0028B4  0000             942+        DC    AL2(EQ)
0028B6  0002             943+        DC    AL2(02)
0028B8  0708             944+        DC    X'0708'
                         945+        ALIGN WORD
0028BA  0006             946+        DC    AL2(6)
0028BC  F6C6F0F0F0F0     947+        DC    C'6F0000'
                         948+        ALIGN WORD
0028C2  196E             949+        DC     AL2(PARMARA)
                         950 N00048  $FIXT FT=(F00014)
0028C4  0101             951+N00048  DC    A(@FIXT)
0028C6  2B1E             952+        DC    A(F00014)
                         953 N00049  $TUXX T3C00,02,0708,EQ,PLNG=6,PARM=600001,QT=(Q00200),      X
0028C8  0500             954+N00049  DC    A(@TUXX)
0028CA  28E2             955+        DC    AL2(N00051)
0028CC  3476             956+        DC    A(T3C00)
0028CE  0000             957+        DC    AL2(EQ)
0028D0  0002             958+        DC    AL2(02)
0028D2  0708             959+        DC    X'0708'
                         960+        ALIGN WORD
0028D4  0006             961+        DC    AL2(6)
0028D6  F6F0F0F0F0F1     962+        DC    C'600001'
                         963+        ALIGN WORD
0028DC  196E             964+        DC     AL2(PARMARA)
                         965 N00050  $FIXT FT=(F00014)
0028DE  0101             966+N00050  DC    A(@FIXT)
0028E0  2B1E             967+        DC    A(F00014)
                         968 N00051  $TUXX T3C02,02,0708,EQ,QT=(Q00205),YES=N00053,ST=(S00037)
0028E2  0500             969+N00051  DC    A(@TUXX)
0028E4  28F8             970+        DC    AL2(N00053)
0028E6  2EF6             971+        DC    A(T3C02)
0028E8  0000             972+        DC    AL2(EQ)
0028EA  0002             973+        DC    AL2(02)
0028EC  0708             974+        DC    X'0708'
                         975+        ALIGN WORD
0028EE  0000             976+        DC    AL2(0)
0028F0  C1C1             977+        DC    C'AA'
                         978+        ALIGN WORD
0028F2  196E             979+        DC     AL2(PARMARA)
                         980 N00052  $FIXT FT=(F00014)
0028F4  0101             981+N00052  DC    A(@FIXT)
0028F6  2B1E             982+        DC    A(F00014)
                         983 N00053  $TUXX T3C03,01,07,EQ,PLNG=6,PARM=5F0000,QT=(Q00213),      X
0028F8  0500             984+N00053  DC    A(@TUXX)
0028FA  2912             985+        DC    AL2(N00055)
0028FC  3514             986+        DC    A(T3C03)
0028FE  0000             987+        DC    AL2(EQ)
002900  0001             988+        DC    AL2(01)
002902  07               989+        DC    X'07'
002903  00               990+        ALIGN WORD
002904  0006             991+        DC    AL2(6)
002906  F5C6F0F0F0F0     992+        DC    C'5F0000'
                         993+        ALIGN WORD
00290C  196E             994+        DC     AL2(PARMARA)
                         995 N00054  $FIXT FT=(F00014)
00290E  0101             996+N00054  DC    A(@FIXT)
002910  2B1E             997+        DC    A(F00014)
                         998 N00055  $TUXX T3C02,03,070240,EQ,QT=(Q00222),YES=N00057,CT=(C00218),  X
002912  0500             999+N00055  DC    A(@TUXX)
002914  292A            1000+        DC    AL2(N00057)
002916  2EF6            1001+        DC    A(T3C02)
002918  0000            1002+        DC    AL2(EQ)
00291A  0003            1003+        DC    AL2(03)
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 LOCTR  OBJECT TEXT      STMT SOURCE STATEMENT
002918  070240          1004+          DC    X'070240'
00291C  00              1005+          ALIGN WORD
00291E  0000            1006+          DC    AL2(0)
002920  C1C1            1007+          DC    C'AA'
002922                  1008+          ALIGN WORD
002924  196E            1009+          DC     AL2(PARMARA)
                        1010 N00056    $FIXT FT=(F00014)
002926  0101            1011+N00056    DC    A(@FIXT)
002928  2B1E            1012+          DC    A(F00014)
                        1013 N00057    $TUXX T3C00,02,0708,EQ,PLNG=6,PARM=600003,QT=(Q00228),      X
00292A  0500            1014+N00057    DC    A(@TUXX)
00292C  2944            1015+          DC    AL2(N00059)
00292E  3476            1016+          DC    A(T3C00)
002930  0000            1017+          DC    AL2(EQ)
002932  0002            1018+          DC    AL2(02)
002934  0708            1019+          DC    X'0708'
                        1020+          ALIGN WORD
002936  0006            1021+          DC    AL2(6)
002938  F6F0F0F0F0F3    1022+          DC    C'600003'
                        1023+          ALIGN WORD
00293E  196E            1024+          DC     AL2(PARMARA)
                        1025 N00058    $FIXT FT=(F00014)
002940  0101            1026+N00058    DC    A(@FIXT)
002942  2B1E            1027+          DC    A(F00014)
                        1028 N00059    $TUXX T3C02,02,0708,EQ,QT=(Q00233),YES=N00061,ST=(S00037)
002944  0500            1029+N00059    DC    A(@TUXX)
002946  295A            1030+          DC    AL2(N00061)
002948  2EF6            1031+          DC    A(T3C02)
00294A  0000            1032+          DC    AL2(EQ)
00294C  0002            1033+          DC    AL2(02)
00294E  0708            1034+          DC    X'0708'
                        1035+          ALIGN WORD
002950  0000            1036+          DC    AL2(0)
002952  C1C1            1037+          DC    C'AA'
                        1038+          ALIGN WORD
002954  196E            1039+          DC     AL2(PARMARA)
                        1040 N00060    $FIXT FT=(F00014)
002956  0101            1041+N00060    DC    A(@FIXT)
002958  2B1E            1042+          DC    A(F00014)
                        1043 N00061    $TUXX T3C03,01,07,EQ,PLNG=6,PARM=5F0000,QT=(Q00241),      X
00295A  0500            1044+N00061    DC    A(@TUXX)
00295C  2974            1045+          DC    AL2(N00063)
00295E  3514            1046+          DC    A(T3C03)
002960  0000            1047+          DC    AL2(EQ)
002962  0001            1048+          DC    AL2(01)
002964  07              1049+          DC    X'07'
002965  00              1050+          ALIGN WORD
002966  0006            1051+          DC    AL2(6)
002968  F5C6F0F0F0F0    1052+          DC    C'5F0000'
                        1053+          ALIGN WORD
00296E  196E            1054+          DC     AL2(PARMARA)
                        1055 N00062    $FIXT FT=(F00014)
002970  0101            1056+N00062    DC    A(@FIXT)
002972  2B1E            1057+          DC    A(F00014)
                        1058 N00063    $TUXX T3C02,03,070240,EQ,QT=(Q00250),YES=N00065,CT=(C00246),  X
002974  0500            1059+N00063    DC    A(@TUXX)
002976  298C            1060+          DC    AL2(N00065)
002978  2EF6            1061+          DC    A(T3C02)
00297A  0000            1062+          DC    AL2(EQ)
00297C  0003            1063+          DC    AL2(03)
00297E  070240          1064+          DC    X'070240'
002981  00              1065+          ALIGN WORD
002982  0000            1066+          DC    AL2(0)
002984  C1C1            1067+          DC    C'AA'
                        1068+          ALIGN WORD
002986  196E            1069+          DC     AL2(PARMARA)
                        1070 N00064    $FIXT FT=(F00014)
002988  0101            1071+N00064    DC    A(@FIXT)
00298A  2B1E            1072+          DC    A(F00014)
                        1073 N00065    $TUXX T3C00,02,0708,EQ,PLNG=6,PARM=600005,QT=(Q00256),      X
00298C  0500            1074+N00065    DC    A(@TUXX)
00298E  29A6            1075+          DC    AL2(N00067)
002990  3476            1076+          DC    A(T3C00)
002992  0000            1077+          DC    AL2(EQ)
002994  0002            1078+          DC    AL2(02)
002996  0708            1079+          DC    X'0708'
                        1080+          ALIGN WORD
002998  0006            1081+          DC    AL2(6)
00299A  F6F0F0F0F0F5    1082+          DC    C'600005'
                        1083+          ALIGN WORD
0029A0  196E            1084+          DC     AL2(PARMARA)
                        1085 N00066    $FIXT FT=(F00014)
0029A2  0101            1086+N00066    DC    A(@FIXT)
0029A4  2B1E            1087+          DC    A(F00014)
                        1088 N00067    $TUXX T3C02,02,0708,EQ,QT=(Q00261),YES=N00069,ST=(S00037)
0029A6  0500            1089+N00067    DC    A(@TUXX)
0029A8  29BC            1090+          DC    AL2(N00069)
0029AA  2EF6            1091+          DC    A(T3C02)
0029AC  0000            1092+          DC    AL2(EQ)
0029AE  0002            1093+          DC    AL2(02)
0029B0  0708            1094+          DC    X'0708'
                        1095+          ALIGN WORD
0029B2  0000            1096+          DC    AL2(0)
0029B4  C1C1            1097+          DC    C'AA'
                        1098+          ALIGN WORD
0029B6  196E            1099+          DC     AL2(PARMARA)
                        1100 N00068    $FIXT FT=(F00014)
0029B8  0101            1101+N00068    DC    A(@FIXT)
0029BA  2B1E            1102+          DC    A(F00014)
                        1103 N00069    $TUXX T3C03,01,07,EQ,PLNG=6,PARM=5F0000,QT=(Q00269),      X
0029BC  0500            1104+N00069    DC    A(@TUXX)
0029BE  29D6            1105+          DC    AL2(N00071)
0029C0  3514            1106+          DC    A(T3C03)
0029C2  0000            1107+          DC    AL2(EQ)
0029C4  0001            1108+          DC    AL2(01)
0029C6  07              1109+          DC    X'07'
0029C7  00              1110+          ALIGN WORD
0029C8  0006            1111+          DC    AL2(6)
0029CA  F5C6F0F0F0F0    1112+          DC    C'5F0000'
                        1113+          ALIGN WORD
0029D0  196E            1114+          DC     AL2(PARMARA)
                        1115 N00070    $FIXT FT=(F00014)
0029D2  0101            1116+N00070    DC    A(@FIXT)
0029D4  2B1E            1117+          DC    A(F00014)
                        1118 N00071    $TUXX T3C02,03,070240,EQ,QT=(Q00278),YES=N00073,CT=(C00274),  X
0029D6  0500            1119+N00071    DC    A(@TUXX)
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 LOCTR  OBJECT TEXT      STMT SOURCE STATEMENT
0029D8  29EE            1120+          DC    AL2(N00073)
0029DA  2EF6            1121+          DC    A(T3C02)
0029DC  0000            1122+          DC    AL2(EQ)
0029DE  0003            1123+          DC    AL2(03)
0029E0  070240          1124+          DC    X'070240'
0029E3  00              1125+          ALIGN WORD
0029E4  0000            1126+          DC    AL2(0)
0029E6  C1C1            1127+          DC    C'AA'
                        1128+          ALIGN WORD
0029E8  196E            1129+          DC     AL2(PARMARA)
                        1130 N00072    $FIXT FT=(F00014)
0029EA  0101            1131+N00072    DC    A(@FIXT)
0029EC  2B1E            1132+          DC    A(F00014)
                        1133 N00073    $TUXX T4801,02,FFF7,OF,QT=(Q00285),YES=N00075,CT=(C00283)
0029EE  0500            1134+N00073    DC    A(@TUXX)
0029F0  2A04            1135+          DC    AL2(N00075)
0029F2  2EFE            1136+          DC    A(T4801)
0029F4  0202            1137+          DC    AL2(0F)
0029F6  0002            1138+          DC    AL2(02)
0029F8  FFF7            1139+          DC    X'FFF7'
                        1140+          ALIGN WORD
0029FA  0000            1141+          DC    AL2(0)
0029FC  C1C1            1142+          DC    C'AA'
                        1143+          ALIGN WORD
0029FE  196E            1144+          DC     AL2(PARMARA)
                        1145 N00074    $FIXT FT=(F00287)
002A00  0101            1146+N00074    DC    A(@FIXT)
002A02  2D24            1147+          DC    A(F00287)
                        1148 N00075    $TUXX T3C02,02,0008,OF,QT=(Q00290),YES=N00077,ST=(S00037)
002A04  0500            1149+N00075    DC    A(@TUXX)
002A06  2A22            1150+          DC    AL2(N00077)
002A08  2EF6            1151+          DC    A(T3C02)
002A0A  0202            1152+          DC    AL2(0F)
002A0C  0002            1153+          DC    AL2(02)
002A0E  0008            1154+          DC    X'0008'
                        1155+          ALIGN WORD
002A10  0000            1156+          DC    AL2(0)
002A12  C1C1            1157+          DC    C'AA'
                        1158+          ALIGN WORD
002A14  196E            1159+          DC     AL2(PARMARA)
                        1160 N00076    $CALL TYPE=XTRNL,MAP=4813,EP=E,FT=(F00293),GTO=((4813,E))
002A16  0201            1161+N00076    DC    A(@CALL)
002A18  2D60            1162+          DC    A(F00293)
002A1A  F4F8F1F3        1163+          DC    CL4'4813'
002A1E  C540            1164+          DC    CL2'E'
002A20  0001            1165+          DC    AL2(XTRNL)
                        1166 N00077    $TUXX T4853,02,0004,OF,QT=(Q00299),YES=N00079,CT=(C00297)
002A22  0500            1167+N00077    DC    A(@TUXX)
002A24  2A38            1168+          DC    AL2(N00079)
002A26  2FC2            1169+          DC    A(T4853)
002A28  0202            1170+          DC    AL2(0F)
002A2A  0002            1171+          DC    AL2(02)
002A2C  0004            1172+          DC    X'0004'
                        1173+          ALIGN WORD
002A2E  0000            1174+          DC    AL2(0)
002A30  C1C1            1175+          DC    C'AA'
                        1176+          ALIGN WORD
002A32  196E            1177+          DC     AL2(PARMARA)
                        1178 N00078    $FIXT FT=(F00301)
002A34  0101            1179+N00078    DC    A(@FIXT)
002A36  2D88            1180+          DC    A(F00301)
                        1181 N00079    $TUXX T3C02,02,0008,OF,QT=(Q00305),YES=N00081,CT=(C00304),  X
002A38  0500            1182+N00079    DC    A(@TUXX)
002A3A  2A56            1183+          DC    AL2(N00081)
002A3C  2EF6            1184+          DC    A(T3C02)
002A3E  0202            1185+          DC    AL2(0F)
002A40  0002            1186+          DC    AL2(02)
002A42  0008            1187+          DC    X'0008'
                        1188+          ALIGN WORD
002A44  0000            1189+          DC    AL2(0)
002A46  C1C1            1190+          DC    C'AA'
                        1191+          ALIGN WORD
002A48  196E            1192+          DC     AL2(PARMARA)
                        1193 N00080    $CALL TYPE=XTRNL,MAP=4813,EP=A,FT=(F00308),GTO=((4813,A))
002A4A  0201            1194+N00080    DC    A(@CALL)
002A4C  2DB6            1195+          DC    A(F00308)
002A4E  F4F8F1F3        1196+          DC    CL4'4813'
002A52  C140            1197+          DC    CL2'A'
002A54  0001            1198+          DC    AL2(XTRNL)
                        1199 N00081    $TUXX T3C02,02,0002,OF,QT=(Q00312),YES=N00083,CT=(C00311),  X
002A56  0500            1200+N00081    DC    A(@TUXX)
002A58  2A6C            1201+          DC    AL2(N00083)
002A5A  2EF6            1202+          DC    A(T3C02)
002A5C  0202            1203+          DC    AL2(0F)
002A5E  0002            1204+          DC    AL2(02)
002A60  0002            1205+          DC    X'0002'
                        1206+          ALIGN WORD
002A62  0000            1207+          DC    AL2(0)
002A64  C1C1            1208+          DC    C'AA'
                        1209+          ALIGN WORD
002A66  196E            1210+          DC     AL2(PARMARA)
                        1211 N00082    $FIXT FT=(F00315)
002A68  0101            1212+N00082    DC    A(@FIXT)
002A6A  2DD2            1213+          DC    A(F00315)
                        1214 N00083    $TUXX T3C02,02,0001,OF,QT=(Q00319),YES=N00085,CT=(C00318),  X
002A6C  0500            1215+N00083    DC    A(@TUXX)
002A6E  2A8A            1216+          DC    AL2(N00085)
002A70  2EF6            1217+          DC    A(T3C02)
002A72  0202            1218+          DC    AL2(0F)
002A74  0002            1219+          DC    AL2(02)
002A76  0001            1220+          DC    X'0001'
                        1221+          ALIGN WORD
002A78  0000            1222+          DC    AL2(0)
002A7A  C1C1            1223+          DC    C'AA'
                        1224+          ALIGN WORD
002A7C  196E            1225+          DC     AL2(PARMARA)
                        1226 N00084    $CALL TYPE=XTRNL,MAP=4813,EP=C,FT=(F00322),GTO=((4813,C))
002A7E  0201            1227+N00084    DC    A(@CALL)
002A80  2E00            1228+          DC    A(F00322)
002A82  F4F8F1F3        1229+          DC    CL4'4813'
002A86  C340            1230+          DC    CL2'C'
002A88  0001            1231+          DC    AL2(XTRNL)
                        1232 N00085    $TUXX T3C02,10,0000000000000006E00,ON,QT=(Q00327),YES=N00087,X
002A8A  0500            1233+N00085    DC    A(@TUXX)
002A8C  2AB0            1234+          DC    AL2(N00087)
002A8E  2EF6            1235+          DC    A(T3C02)
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 LOCTR  OBJECT TEXT      STMT SOURCE STATEMENT                                   COPYRIGHT IBM CORP 1976
002A90  0200            1236+          DC    AL2(ON)
002A92  000A            1237+          DC    AL2(10)
002A94  00000000000000006 1238+        DC    X'00000000000000006E00'
                        1239+          ALIGN WORD
002A9E  0000            1240+          DC    AL2(0)
002AA0  C1C1            1241+          DC    C'AA'
                        1242+          ALIGN WORD
002AA2  196E            1243+          DC     AL2(PARMARA)
                        1244 N00086    $CALL TYPE=XTRNL,MAP=4813,EP=A,FT=(F00332),GTO=((4813,A))
                        1245+N00086    DC    A(@CALL)
                        1246+          DC    A(F00332)
002AA8  F4F8F1F3        1247+          DC    CL4'4813'
002AAC  C140            1248+          DC    CL2'A'
002AAE  0001            1249+          DC    AL2(XTRNL)
                        1250 N00087    $TUXX T3C02,10,00000000000000091FF,OF,QT=(Q00336),YES=N00089,X
002AB0  0500            1251+N00087    DC    A(@TUXX)
002AB2  2AD6            1252+          DC    AL2(N00089)
002AB4  2EF6            1253+          DC    A(T3C02)
002AB6  0202            1254+          DC    AL2(OF)
002AB8  000A            1255+          DC    AL2(10)
002ABA  00000000000000009 1256+        DC    X'00000000000000091FF'
                        1257+          ALIGN WORD
002AC4  0000            1258+          DC    AL2(0)
002AC6  C1C1            1259+          DC    C'AA'
                        1260+          ALIGN WORD
002AC8  196E            1261+          DC     AL2(PARMARA)
                        1262 N00088    $CALL TYPE=XTRNL,MAP=4813,EP=A,FT=(F00340),GTO=((4813,A))
002ACA  0201            1263+N00088    DC    A(@CALL)
002ACC  2E54            1264+          DC    A(F00340)
002ACE  F4F8F1F3        1265+          DC    CL4'4813'
002AD2  C140            1266+          DC    CL2'A'
002AD4  0001            1267+          DC    AL2(XTRNL)
                        1268 N00089    $GOTO TYPE=XTRNL,EP=A,MAP=4801,FT=(F00344)
002AD6  0200            1269+N00089    DC    A(@GOTO)
002AD8  2E84            1270+          DC    A(F00344)
002ADA  F4F8F0F1        1271+          DC    CL4'4801'
002ADE  C140            1272+          DC    CL2'A'
002AE0  0001            1273+          DC    AL2(XTRNL)
002AE2  0000            1274           DC    AL2(DUMMY)
002AE4                  1275 ENTPT     EQU   *
                        1276 ********************************************************************************
                        1277 ********************************************************************************
                        1278 **                                                                            **
                        1279 **                          ENTRY POINT TABLE                                 **
                        1280 **                                                                            **
                        1281 ********************************************************************************
                        1282 ********************************************************************************
                        1283           ENTPT EP=A,STEP=00001
002AE4  C140            1284+          DC    CL2'A'
002AE6  2668            1285+          DC    A(N00001)
                        1286           ENTPT EP=B,STEP=00049
002AE8  C240            1287+          DC    CL2'B'
002AEA  28C8            1288+          DC    A(N00049)
                        1289           ENTPT EP=C,STEP=00023
002AEC  C340            1290+          DC    CL2'C'
002AEE  277E            1291+          DC    A(N00023)
002AF0  0000            1292           DC    AL2(DUMMY)
                        1293 ********************************************************************************
                        1294 ********************************************************************************
                        1295 **                                                                            **
                        1296 **                          MESSAGE TABLE                                     **
                        1297 **                                                                            **
                        1298 ********************************************************************************
                        1299 ********************************************************************************
002AF2                  1300 F00008    EQU   *
002AF2  0001            1301           DC    AL2(0001)
002AF4  0028            1302           DC    A(0040)
002AF6  D5D640C961D640C3C 1303         DC    CL0040'NO I/O CC=7 ON HALT I/O - GO TO MAP 0070'
002B1E                  1304 F00014    EQU   *
002B1E  0005            1305           DC    AL2(0005)
002B20  002E            1306           DC    A(0046)
002B22  C3C8C5C3D240E5D6D 1307         DC    CL0046'CHECK VOLTAGE PINS IN DEVICE ON DRIVE CONTROL '
002B50  002A            1308           DC    A(0042)
002B52  C3C1D9C4404D4EF2F 1309         DC    CL0042'CARD (+24,+5, -5). SEE MLD VOL.1 SF140 FOR'
002B7C  002C            1310           DC    A(0044)
002B7E  E3C5E2E340D7D6C9D 1311         DC    CL0044'TEST POINTS. IF VOLTAGE IS OK REPLACE ATTACH'
002BAA  002A            1312           DC    A(0042)
002BAC  C3C1D9C440C9C64 1313           DC    CL0042'CARD. IF VOLTAGE IS OUT OF TOLERANCE GO TO'
002BD6  0016            1314           DC    A(0022)
002BDB  D7D6E6C5D940E2E4D 1315         DC    CL0022'POWER SUPPLY MAP 4880.'
002BEE                  1316 F00064    EQU   *
002BEE  0005            1317           DC    AL2(0005)
002BF0  0014            1318           DC    A(0020)
002BF2  E6D9D6D5C740C4C5E 1319         DC    CL0020'WRONG DEVICE ADDRESS'
002C06  002A            1320           DC    A(0042)
002C08  C3C8C5C3D240C4C5E 1321         DC    CL0042'CHECK DEVICE ADDRESS AGAINST CONFIGURATOR.'
002C32  002C            1322           DC    A(0044)
002C34  C9C640E6D9D6D5C77 1323         DC    CL0044'IF WRONG: RUN AGAIN AGAINST CORRECT ADDRESS.'
002C60  0014            1324           DC    A(0020)
002C62  C9C640C3D6D9D5C5C 1325         DC    CL0020'IF CORRECT ADDRESS: '
002C76  001E            1326           DC    A(0030)
002C78  D9C5D7D3C1C3C57A4 1327         DC    CL0030'REPLACE: I/O ATTACHMENT CARD. '
002C96                  1328 F00103    EQU   *
002C96  0001            1329           DC    AL2(0001)
002C98  0022            1330           DC    A(0034)
002C9A  C2E4E2E840E2E3C1E 1331         DC    CL0034'BUSY STATUS - O.K. WHEN RUN AGAIN '
002CBC                  1332 F00010    EQU   *
002CBC  0001            1333           DC    AL2(0001)
002CBE  002C            1334           DC    A(0044)
002CC0  C3D6D4D4C1D5C440D 1335         DC    CL0044'COMMAND REJECT - REPLACE I/O ATTACHMENT CARD'
002CEC                  1336 F00012    EQU   *
002CEC  0002            1337           DC    AL2(0002)
002CEE  002E            1338           DC    A(0046)
002CF0  C9D5E3C5D9C6C1C3C 1339         DC    CL0046'INTERFACE DATA CHECK - REPLACE I/O ATTACHMENT '
002D1E  0004            1340           DC    A(0004)
002D20  C3C1D9C4        1341           DC    CL0004'CARD'
002D24                  1342 F00287    EQU   *
002D24  0002            1343           DC    AL2(0002)
002D26  0026            1344           DC    A(0038)
002D28  E3C5E2E340C6C1C9D 1345         DC    CL0038'TEST FAILED. REPLACE THE DISKETTE UNIT'
002D4E  0010            1346           DC    A(0016)
002D50  C1E3E3C1C3C8D4C5D 1347         DC    CL0016'ATTACHMENT CARD.'
002D60                  1348 F00293    EQU   *
002D60  0002            1349           DC    AL2(0002)
002D62  0014            1350           DC    A(0020)
002D64  C4C5E5C9C3C540C9E 1351         DC    CL0020'DEVICE IS NOT READY '
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 LOCTR  OBJECT TEXT      STMT SOURCE STATEMENT                                   COPYRIGHT IBM CORP 1976
002D78  000E            1352           DC    A(0014)
002D7A  C7D640E3D640D4C1D 1353         DC    CL0014'GO TO MAP 4813'
002D88                  1354 F00301    EQU   *
002D88  0001            1355           DC    AL2(0001)
002D8A  002A            1356           DC    A(0042)
002D8C  D9C5D7D3C1C3C540E 1357         DC    CL0042'REPLACE THE DISKETTE UNIT ATTACHMENT CARD.'
002DB6                  1358 F00308    EQU   *
002DB6  0002            1359           DC    AL2(0002)
002DB8  0008            1360           DC    A(0008)
002DBA  C5E7E3C5D9D5C1D3 1361          DC    CL0008'EXTERNAL'
002DC2  000E            1362           DC    A(0014)
002DC4  C7D640E3D640D4C1D 1363         DC    CL0014'GO TO MAP 4813'
002DD2                  1364 F00315    EQU   *
002DD2  0001            1365           DC    AL2(0001)
002DD4  002A            1366           DC    A(0042)
002DD6  D9C5D7D3C1C3C540E 1367         DC    CL0042'REPLACE THE DISKETTE UNIT ATTACHMENT CARD.'
002E00                  1368 F00322    EQU   *
002E00  0002            1369           DC    AL2(0002)
002E02  0010            1370           DC    A(0016)
002E04  C4C9E2D240E2D7C5C 1371         DC    CL0016'DISK SPEED WRONG'
002E14  000E            1372           DC    A(0014)
002E16  C7D640E3D640D4C1D 1373         DC    CL0014'GO TO MAP 4813'
002E24                  1374 F00332    EQU   *
002E24  0002            1375           DC    AL2(0002)
002E26  001C            1376           DC    A(0028)
002E28  C4C9C1C7D5D6E2E3C 1377         DC    CL0028'DIAGNOSTIC WRAP TEST FAILED '
002E44  000E            1378           DC    A(0014)
002E46  C7D640E3D640D4C1D 1379         DC    CL0014'GO TO MAP 4813'
002E54                  1380 F00340    EQU   *
002E54  0002            1381           DC    AL2(0002)
002E56  001C            1382           DC    A(0028)
002E58  C4C9C1C7D5D6E2E3C 1383         DC    CL0028'DIAGNOSTIC WRAP TEST FAILED '
002E74  000E            1384           DC    A(0014)
002E76  C7D640E3D640D4C1D 1385         DC    CL0014'GO TO MAP 4813'
002E84                  1386 F00344    EQU   *
002E84  0001            1387           DC    AL2(0001)
002E86  0028            1388           DC    A(0040)
002E88  C3D6D5E3C9D5E4C54 1389         DC    CL0040'CONTINUE WITH DISKETTE UNIT DEVICE MAPS '
                        1390       HDIT  0106
002EB0  0000            1392+CPTN1     DC    X'0000'          PROGRAM CPTION CONTROL WORD 1
                        1393+*
002EB2  0000            1394+OPTN2     DC    X'0000'          PROGRAM CPTION CONTROL WORD 2
                        1395+*                        BIT     HEX
000010                  1396+B48       EQU   16       0       8       PROBLEM PROGRAM CONTROL BITS
000011                  1397+B49       EQU   17       1       4       *
000012                  1398+B50       EQU   18       2       2       * THESE BITS ARE USED WITH THE
000013                  1399+B51       EQU   19       3       1       * SECOND OPTION WD   AND ARE TO
000014                  1400+B52       EQU   20       4       8       * BE ASSIGNED BY EACH PROGRAMMER
000015                  1401+B53       EQU   21       5       4       *
000016                  1402+B54       EQU   22       6       2       *
000017                  1403+B55       EQU   23       7       1       *
000018                  1404+B56       EQU   24       8       8       *
000019                  1405+B57       EQU   25       9       4       *
00001A                  1406+B58       EQU   26       10      2       *
00001B                  1407+B59       EQU   27       11      1       *
00001C                  1408+B60       EQU   28       12      8       *
00001D                  1409+B61       EQU   29       13      4       *
00001E                  1410+B62       EQU   30       14      2       *
00001F                  1411+B63       EQU   31       15      1       *
00001E                  1412+CH        EQU   30       14      2       CHARACTER SUPPLIED
00001F                  1413+CMP       EQU   31       15      1       COMPARE OPERATION
002EB4  0000            1415+OPTN3     DC    X'0000'          PROGRAM OPTION CONTROL WORD 3
                        1416+*
                        1417+*  0  MYSTERY INTERRUPT      MI        8  CS STATUS IN PROGRESS    CS
                        1418+*  1  ERROR INTERRUPT        ER        9  CS AVAILABLE             CSA
                        1419+*  2  EXPECTED INTERRUPT     XI       10  CS STATUS INTERRUPT ERR  CE
                        1420+*  3  INTERRUPT RECEIVED     IN       11  ISB BITS ON (1-7)        ISBON
                        1421+*
                        1422+*  4  EXPECTED ERR/ATTENT    XE       12  TEST UNIT RESULTS VOID   NG
                        1423+*  5  HARD ERROR FOUND       HE       13  OIO CC ERROR             IOCC
                        1424+*  6  WRONG INTR LEVEL       $LE      14  NO INTERRUPT             NOIN
                        1425+*  7  NO INTR EXPECTED       NI       15  INTERRUPT CC ERROR       INCC
                        1426+*                        BIT     HEX
000020                  1427+MI        EQU   32       0       8       MYSTERY INTERRUPT HAPPENED
000021                  1428+ER        EQU   33       1       4       ERROR RECEIVED ON INTERRUPT
000022                  1429+XI        EQU   34       2       2       EXPECTED INTERRUPT CONTROL BIT
000023                  1430+IN        EQU   35       3       1       INTERRUPT RECEIVED CONTROL BIT
000024                  1431+XE        EQU   36       4       8       EXPECTED ERROR RESPONSE
000025                  1432+HE        EQU   37       5       4       HARD ERROR, 8 RETRIES
000026                  1433+$LE       EQU   38       6       2       INTERRUPT ON WRONG LEVEL ERRCR
000027                  1434+NI        EQU   39       7       1       NO INTERRUPT EXPECTED E
000028                  1435+CS        EQU   40       8       8       CYCLE STATUS IN PROGRESS
000029                  1436+CSA       EQU   41       9       4       CYCLE STEAL AVAILABLE
00002A                  1437+CE        EQU   42       10      2       CYCLE STEAL STATUS INERRUPT ERROR
00002B                  1438+ISBON     EQU   43       11      1       ISB BITS ON (1-7)
00002C                  1439+NG        EQU   44       12      8       TEST UNIT RESULTS NO GOOD
00002D                  1440+IOCC      EQU   45       13      4       OIO CC ERROR
00002E                  1441+NOIN      EQU   46       14      2       NO INTERRUPT
00002F                  1442+INCC      EQU   47       15      1       INTERRUPT CC ERROR
                        1443+*
                        1444+*      COMMON BUFFER FOR PRINTING DATA
                        1445+*
002EB6  0000            1447+$TUID     DC    A(*-*)           TEST UNIT IDENTIFICATION
002EB8  0000            1448+$IOIN     DC    A(*-*)           I/O AND INTR CONDITION CODES
002EBA  0000            1449+$ISB      DC    A(*-*)           R7, INTR STATUS BYTE & DEV ADRS
002EBC  0000            1450+ISTIC     DC    A(*-*)           ADRS OF LAST I/O + 4 BYTES
002EBE  0000            1451+DEV1      DC    A(*-*)           DEVICE DEPENDENT DATA
002EC0  0000            1452+DEV2      DC    A(*-*)           *
002EC2  0000            1453+DEV3      DC    A(*-*)           *
002EC4  0000            1454+DEV4      DC    A(*-*)           *
002EBE                  1455+SCTID     EQU   DEV1             READ ID BUFFER FOR IBIS & TERN
002EC6                  1456+DCBUF     EQU   *                DCB BUFFER FOR LAST DCB USED
002EC6  0000            1457+DCB1      DC    A(*-*)           LAST DCB TABLE, CONTROL WORD
002EC8  0000            1458+DCB2      DC    A(*-*)           LAST DCB TABLE, DEV DEP WORD
002ECA  0000            1459+DCB3      DC    A(*-*)           LAST DCB TABLE, DEV DEP WORD
002ECC  0000            1460+DCB4      DC    A(*-*)           LAST DCB TABLE, DEV DEP WORD
002ECE  0000            1461+DCB5      DC    A(*-*)           LAST DCB TABLE, DEV DEP WORD
002ED0  0000            1462+DCB6      DC    A(*-*)           LAST DCB TABLE, CHAIN ADRS
002ED2  0000            1463+DCB7      DC    A(*-*)           LAST DCB TABLE, BYTE COUNT
002ED4  0000            1464+DCB8      DC    A(*-*)           LAST DCB TABLE, BUFFER ADDRESS
                        1465+*
002ED6                  1466+CSBUF     EQU   *                CYCLE STEAL DATA BUFFER
002ED6  0000            1467+CSTL1     DC    A(*-*)           CYCLE STEAL BUFFER, RESIDUAL ADRS
002ED8  0000            1468+CSTL2     DC    A(*-*)           CYCLE STEAL WD 2, DEVICE DEPEND
002EDA  0000            1469+CSTL3     DC    A(*-*)           CYCLE STEAL WD 3, DEVICE DEPEND
002EDC  0000            1470+CSTL4     DC    A(*-*)           CYCLE STEAL WD 4, DEVICE DEPEND
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 LOCTR  OBJECT TEXT   STMT SOURCE STATEMENT                    COPYRIGHT IBM CORP 1976
002EDE  0000          1471+CSTL5 DC    A(*-*)                  CYCLE STEAL WD 5, DEVICE DEPEND
002EE0  0000          1472+CSTL6 DC    A(*-*)                  CYCLE STEAL WD 6, DEVICE DEPEND
002EE2  0000          1473+CSTL7 DC    A(*-*)                  CYCLE STEAL WD 7, DEVICE DEPEND
002EE4  0000          1474+CSTL8 DC    A(*-*)                  CYCLE STEAL WD 8, DEVICE DEPEND
                      1475+*
002EE6  0000          1476+$SUBN DC    A(*-*)                  LAST SUBROUTINE ADDRESS USED
002EE8  00000000      1477+$DATA DC    2A(*-*)                 OPTIONAL DATA
002EEC  0021          1478+$INTL DC    X'0021'                 INTERRUPT LEVEL REQUESTED
002EEE  0000          1479+TURTN DC    A(*-*)                  TEST UNIT RETURN ADRS TO MDI
002EF0  0106          1480+$DVID DC    X'0106'                 DEVICE ID
002EF2  19D0          1481+$VCAL DC    A(DEVADD)               ADRS OF DEVICE ADDRESS
002EF4  0000          1482+      DC    A(*-*)                  IBIS CYLINDER ADDRESS
                      1483+*
                      1484+*     THIS TEST UNIT WILL RETURN TO MDI WITHOUT DOING ANY PROGRAM
                      1485+*     FUNCTION. THE RESULTS THAT WERE SET UP IN THE RESULTS AREA ARE
                      1486+*     STILL VALID BUT A DIFFERENT TEST IS TO BE PERFORMED.
                      1487+*
002EF6  4020 2EB6 3C02 1488+T3C02 MVWI  X'3C02',$TUID          SET UP TEST UNIT ID
002EFC  5700          1489+      BXS   (R7)                    RETURN TO MDI SUPVR
                      1491       COPY  COMEQU
                      1492 ********************************************************************
                      1493 *                                                                  *
                      1494 *                EQUATED NAMES FOR SUPPORTED SVC'S                 *
                      1495 *                                                                  *
                      1496 ********************************************************************
000000                1497 OUT    EQU   0                       OUT SVC
000001                1498 OUTIN  EQU   1                       OUTIN SVC
000002                1499 IDLE   EQU   2                       IDLE SVC
000003                1500 ASCII  EQU   3                       HEX TO ASCII SVC
000004                1501 CHNGE  EQU   4                       CHANGE LEVEL SVC
000005                1502 PGMCK  EQU   5                       ALLOW RETURN ON PROGRAM CHECK SVC
000006                1503 EXIT   EQU   6                       EXIT SVC
000007                1504 TERM   EQU   7                       TERMINATE SVC
000008                1505 RESET  EQU   8                       RESET DEVICE SVC
000009                1506 RID    EQU   9                       READ ID SVC
00000A                1507 START  EQU   10                      START CYCLE STEAL SVC
00000B                1508 SICSS  EQU   11                      START CYCLE STEAL STATUS SVC
00000C                1509 PREP   EQU   12                      PREPARE DEVICE SVC
00000D                1510 READ0  EQU   13                      READ WITH FUNCTION BIT 3 OFF SVC
00000E                1511 READ1  EQU   14                      READ WITH FUNCTION BIT 3 ON SVC
00000F                1512 RSTAT  EQU   15                      READ STATUS SVC
000010                1513 WRIT0  EQU   16                      WRITE WITH FUNCTION BIT 3 OFF SVC
000011                1514 WRIT1  EQU   17                      WRITE WITH FUNCTION BIT 3 ON SVC
000012                1515 CTRL   EQU   18                      CONTROL SVC
000013                1516 RICB   EQU   19                      RELEASE INTERUPT CONTROL BLOCK SVC
000014                1517 CICB   EQU   20                      CONNECT INTERUPT CONTROL BLOCK SVC
000015                1518 HIO    EQU   21                      HALT ALL I/O
000016                1519 RECSD  EQU   22                      REQUEST USE OF DCP DISK SVC
000017                1520 RELSD  EQU   23                      RELEASE USE OF DCP DISK SVC
000018                1521 HALT   EQU   24                      HALT SVC
000019                1522 ETOH   EQU   25                      EBCDIC TO HEX SVC (STRING)
00001A                1523 HTOE   EQU   26                      HEX TO EBCDIC SVC (STRING)
00001B                1524 ATOH   EQU   27                      ASCII TO HEX SVC (STRING)
00001C                1525 HTOA   EQU   28                      HEX TO ASCII SVC (STRING)
00001D                1526 ETOA   EQU   29                      EBCDIC TO ASCII SVC (STRING)
00001E                1527 ATOE   EQU   30                      ASCII TO EBCDIC SVC (STRING)
00001F                1528 READI  EQU   31                      READ DATA SETS FOR MDI/UTIL
000020                1529 WRITI  EQU   32                      WRITE DATA SETS FOR UTIL
                      1531 ********************************************************************
                      1532 *                                                                  *
                      1533 *                EQUATES USED BY TU'S AS CONSTANTS                 *
                      1534 *                                                                  *
                      1535 ********************************************************************
00004E                1536 PLUS   EQU   C'+'                    PLUS CHAR
000060                1537 MINUS  EQU   C'-'                    MINUS CHAR
000000                1539 ZERO   EQU   0
000001                1540 ONE    EQU   1
000002                1541 TWO    EQU   2
000003                1542 THREE  EQU   3
000004                1543 FOUR   EQU   4
000005                1544 FIVE   EQU   5
000006                1545 SIX    EQU   6
000007                1546 SEVEN  EQU   7
000008                1547 EIGHT  EQU   8
000009                1548 NINE   EQU   9
00000A                1549 TEN    EQU   10
00000B                1550 ELEVN  EQU   11                                    11
00000C                1551 TWELV  EQU   12                                    12
00000D                1552 THRTN  EQU   13                                    13
00000F                1553 FIVTN  EQU   15                                    15
000010                1554 SIXTN  EQU   16                                    16
000020                1555 THRY2  EQU   32                                    32
000040                1556 SIXT4  EQU   64                                    64
000080                1557 ONE28  EQU   128                                   128
000100                1558 TWO56  EQU   256                                   256
000400                1559 ONEK   EQU   1024                                  1024
000800                1560 TWOK   EQU   2048                                  2048
000C00                1561 THREK  EQU   3072                                  3072
001000                1562 FOURK  EQU   4096                                  4096
FFFFFF                1564 M1     EQU   -1                                    -1
FFFFFE                1565 M2     EQU   -2                                    -2
FFFFFD                1566 M3     EQU   -3                                    -3
FFFFFC                1567 M4     EQU   -4                                    -4
                      1569 ********************************************************************
                      1570 *                                                                  *
                      1571 *     THE FOLLOWING ARE EQUATES FOR BIT DISPLACEMENTS FROM THE     *
                      1572 *     BEGINNING OF THE BYTE TO EACH BIT IN THE WORD OF SWITCHES.   *
                      1573 *                                                                  *
                      1574 ********************************************************************
000000                1575 BS0    EQU   0
000001                1576 BS1    EQU   1
000002                1577 BS2    EQU   2
000003                1578 BS3    EQU   3
000004                1579 BS4    EQU   4
000005                1580 BS5    EQU   5
000006                1581 BS6    EQU   6
000007                1582 BS7    EQU   7
000008                1583 BS8    EQU   8
000009                1584 BS9    EQU   9
00000A                1585 BS10   EQU   10
00000B                1586 BS11   EQU   11
00000C                1587 BS12   EQU   12
00000D                1588 BS13   EQU   13
00000E                1589 BS14   EQU   14
00000F                1590 BS15   EQU   15
                      1592       COPY  T4801
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 LOCTR  OBJECT TEXT   STMT SOURCE STATEMENT                    COPYRIGHT IBM CORP 1976
                      1593 T4801 TUIT T01R                3/03/76
                      1594+**********************************************************************06FEB76**
                      1595+*
                      1596+* TEST UNIT
                      1597+*
                      1598+*     CHANNEL INTERFACE TEST      AUTOMATIC SELECTION
                      1599+*
                      1600+* PURPOSE
                      1601+*
                      1602+*     TO VERIFY THE CHANNEL INTERFACE CAN INTERRUPT ON ALL LEVELS
                      1603+*
                      1604+* CALLING SEQUENCE
                      1605+*
                      1606+*     THE HOST WILL PREPARE THE I/O DEVICE TO INTERRUPT ON LEVEL ZERO
                      1607+*     AND CAUSE AN INTERRUPT. WHEN THE INTERRUPT OCCURS, THE LEVEL IS
                      1608+*     COMPARED TO THE EXPECTED LEVEL. THIS IS DONE ON ALL LEVELS.
                      1609+*     LEVEL THREE WILL NOT OCCUR BECAUSE THIS PROGRAM WILL BE RUNNING
                      1610+*     AS A BACKGROUND PROGRAM.
                      1611+*     PROGRAM PASSES STATUS OF ALL LINES IN FOLLOWING FORMAT:
                      1612+*          .      TURESUL BIT 0----------NOT USED
                      1613+*          .      TURESUL BIT 1----------NOT USED
                      1614+*          .      TURESUL BIT 2----------NOT USED
                      1615+*          .      TURESUL BIT 3----------NOT USED
                      1616+*          .      TURESUL BIT 4----------NOT USED
                      1617+*          .      TURESUL BIT 5----------NOT USED
                      1618+*          .      TURESUL BIT 6----------NOT USED
                      1619+*          .      TURESUL BIT 7----------NOT USED
                      1620+*          .      TURESUL BIT 8----------NOT USED
                      1621+*          .      TURESUL BIT 9----------NOT USED
                      1622+*          .      TURESUL BIT 10---------NOT USED
                      1623+*          .      TURESUL BIT 11---------NOT USED
                      1624+*          .      TURESUL BIT 12---------NOT READY
                      1625+*          .      TURESUL BIT 13---------OIO CC ERROR
                      1626+*          .      TURESUL BIT 14---------- DEVICE ID MISCOMPARE
                      1627+*          .      TURESUL BIT 15---------- SEEK NO-OP ERROR
                      1628+*          .      TURESUL BIT 16-31------- CYCLE STEAL STATUS FOR FAILING OP
                      1629+*          .      TURESUL BIT 32-47------- CC - 32-39 OIO CC,40-47 INT CC
                      1630+*          .      TURESUL BIT 48-63------- IBS
                      1631+*          .      TURESUL BIT 64-79------- OPTION WORD 3 (ERROR INDICATORS)
                      1632+*
                      1633+* RETURN CONTROL
                      1634+*     B      TURTN*                  RETURN TO MDI SUPERVISOR
                      1635+* RETURN CONTROL
                      1636+*
                      1637+*     B      TURTN*                  RETURN TO MDI SUPERVISOR
                      1638+*
                      1639+**********************************************************************
002EFE  6F0D 2EEE     1640+T4801 MVW   R7,TURTN                 SAVE RETURN ADDRESS
002F02  4020 2EB6 4801 1641+     MVWI  X'4801',$TUID            SAVE TU ID FOR DISPLAY
002F08  4424 2EB0     1642+      MVA   OPTN1,R4                 SET UP POINTER ADRS IN R4
002F0C  6E03 32BC     1643+      BAL   $CONC,R6                 CLEAR DEV DEP STG AND CONNECT I/O BL
002F10  2FA6          1644+      DC    A(T01R)                  ERROR ADRS FOR INVALID PREP
                      1645+*
                      1646 *
                      1647 **********************************
                      1648 *
002F12  CA25 18C8     1649       MVWZ  TURESUL,R2               CLEAR RESULTS WORD
002F16  CA25 18CA     1650       MVWZ  TURESUL+2,R2             CLEAR RESULTS WORD 2
002F1A  CA25 18CC     1651       MVWZ  TURESUL+4,R2             CLEAR RESULTS WORD 3
002F1E  CA25 18CE     1652       MVWZ  TURESUL+6,R2             CLEAR RESULTS WORD 4
002F22  CA25 18D0     1653       MVWZ  TURESUL+8,R2             CLEAR RESULTS WORD 5
002F26  4224 18C8     1654       MVA   TURESUL,R2               ADDRESS OF RESULTS
002F2A  4724 32A8     1655       MVA   IOBLK,R7                 RESET DEVICE
002F2E  6008          1656       SVC   RESET                    *
                      1657 **********************************
                      1658 *    TEMPORARY DELAY
                      1659 *
                      1660 **********************************
                      1661 *
002F30  4024 0FFF     1662       MVWI  X'0FFF',R0               DELAY ROUTINE TO GET BY BUSY AFTER
002F34  6002          1663 TEMP  SVC   IDLE                     * RESET
002F36  B8FE          1664       JCT   TEMP,R0                  *
002F38  4724 32A8     1665       MVA   ICBLK,R7                 READ DEVICE ID
002F3C  6009          1666       SVC   RID                      *
002F3E  2CA6 2EF0 32B2 1667       CW    $DVID,IOMOD+4            CHECK DEVICE ID
002F44  182C          1668       JNE   T01A                     DEVICE ID ERROR
002F46  4020 309E 0005 1669       MVWI  5,SKDCB                  SET UP CONTRCL WORD FOR TESTING
002F4C  4020 30A0 0000 1670       MVWI  0,SKDCB+2                SET UP SEEK NO DIFFERENCE (NO-OP)
002F52  4020 2EEC FFF1 1671       MVWI  X'FFF1',$INTL            SET UP INTERRUPT LEVEL FOR PREP
002F58  4029 2EEC 0010 1672 ITST1  AWI   X'10',$INTL            ADV INTR LEVEL, STARTING AT 0
002F5E  6E03 32BC     1673       BAL   $CONC,R6                 CONNECT DEV CNTL BLOCK AND PREP DEV
002F62  2FA6          1674       DC    A(T01E)                  ERROR
002F64  6E03 314A     1675 ITST3 BAL   $SEEK,R6                 EXEC NO-OP TO GET AN INTR
002F68  2FBE          1676       DC    A(T01ER)                 ERROR
002F6A  4CA1          1677       TBTR  (R4,ER)                  CC ERROR?
002F6C  1212          1678       JON   T01Z                     YES
002F6E  402F 2EEC 0021 1679 ITST5  CWI   X'21',$INTL            HAS INTR LEVEL COME DOWN TO 2
002F74  18F1          1680       JNE   ITST1                    * NO, BCH AND CONTINUE TEST
002F76  8825 2ED8 18CA 1681 T01C   MVW   CSTL2,TURESUL+2        CYCLE STEAL STATUS FOR FAILING OP
002F7C  8826 2EB8 18CC 1682       MVW   $IOIN,TURESUL+4          CONDITION CODES
002F82  8828 2EBA 18CE 1683       MVW   $ISB,TURESUL+6           ISB
002F88  8828 2EB4 18D0 1684       MVW   OPTN3,TURESUL+8
                      1685       TXIT                           EXIT
002F8E  6802 334A     1686+      B     $CONX                    RETURN TO MDI CONTROLLER
                      1687+**********************************************************************
                      1688 *
002F92  402B 2ED8 0800 1689 T01Z   TWI   X'0800',CSTL2          WAS NOT READY BIT ON?
002F98  1004          1690       JOFF  T01B                     IF NO, JUMP
002F9A  4A4C          1691       TBTS  (R2,12)                  YES
002F9C  50EC          1692       J     T01C                     EXIT
002F9E  4A4E          1693 T01A  TBTS  (R2,14)                  DEVICE ID MISCOMPARE
002FA0  50EA          1694       J     T01C                     EXIT
002FA2  4A4F          1695 T01B  TBTS  (R2,15)                  SEEK NO OP ERROR
002FA4  50E8          1696       J     T01C                     EXIT
002FA6  CA25 18C8     1697 T01R  MVWZ  TURESUL,R2               CLEAR RESULTS WORD
002FAA  CA25 18CA     1698       MVWZ  TURESUL+2,R2             CLEAR RESULTS WORD 2
002FAE  CA25 18CC     1699       MVWZ  TURESUL+4,R2             CLEAR RESULTS WORD 3
002FB2  CA25 18CE     1700       MVWZ  TURESUL+6,R2             CLEAR RESULTS WORD 4
002FB6  CA25 18D0     1701       MVWZ  TURESUL+8,R2             CLEAR RESULTS WORD 5
002FBA  4224 18C8     1702       MVA   TURESUL,R2               ADDRESS OF RESULTS
002FBE  4A4D          1703 T01ER TBTS  (R2,13)                  OIO CC ERROR
002FC0  50DA          1704       J     T01C                     EXIT
                      1705 *
                      1706       COPY  T4853
                      1707 T4853 TUIT $ERR$
                      1708+**********************************************************************06FEB76**
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 LOCTR  OBJECT TEXT        STMT SOURCE STATEMENT                                  COPYRIGHT IBM CORP 1976
                           1709+*
                           1710+* TEST UNIT
                           1711+*
                           1712+*     ATTACHMENT CARD/VFO CHECK OUT TEST #10.                3/11/76
                           1713+*
                           1714+* PURPOSE
                           1715+*
                           1716+*     DETERMINE THE FOLLOWING:
                           1717+*     1. ATTACHMENT CARD ROS IS FUNCTIONING CORRECTLY.
                           1718+*     2. ECHO CHECKS SHOW ATTACHMENT CARD FAILURE.
                           1719+*     3. VFO DATA WRAP WORKS.
                           1720+*     4. DISKETTE SPEED IS CORRECT.
                           1721+*
                           1722+* CALLING SEQUENCE
                           1723+*
                           1724+*     PERFORM THE FOLLOWING:
                           1725+*     1. ISSUE START DIAGNOSTIC COMMAND.
                           1726+*     2. CHECK ROS HASH TOTALS.
                           1727+*     3. CHECK DISKETTE SPEED WITH HEADS LOADED.
                           1728+*     4. VERIFY ECHO CHECKS.
                           1729+*     5. VERIFY DATA WRAP THROUGH VFO CARD IN FILE.
                           1730+*     "
                           1731+*     "
                           1732+*     PROGRAM PASSES STATUS OF ALL LINES IN FOLLOWING FORMAT:
                           1733+*     "       TURESUL BIT 00----NOT USED
                           1734+*     "       TURESUL BIT 01----NOT USED
                           1735+*     "       TURESUL BIT 02----NOT USED
                           1736+*     "       TURESUL BIT 03----NOT USED
                           1737+*     "       TURESUL BIT 04----NOT USED
                           1738+*     "       TURESUL BIT 05----NOT USED
                           1739+*     "       TURESUL BIT 06----NOT USED
                           1740+*     "       TURESUL BIT 07----NOT USED
                           1741+*     "       TURESUL BIT 08----NOT USED
                           1742+*     "       TURESUL BIT 09----NOT USED
                           1743+*     "       TURESUL BIT 10----NOT USED
                           1744+*     "       TURESUL BIT 11----NOT USED
                           1745+*     "       TURESUL BIT 12----NO INTERRUPT RECEIVED.
                           1746+*     "       TURESUL BIT 13----ROS CHECK MISCOMARE.
                           1747+*     "       TURESUL BIT 14----ECHO CHECK ERROR.
                           1748+*     "       TURESUL BIT 15----DISK SPEED INCORRECT.
                           1749+*     "       TURESUL BIT 16-31-FIRST ROS CHECK SUM.
                           1750+*     "       TURESUL BIT 32-47-SECOND ROS CHECK SUM.
                           1751+*     "       TURESUL BIT 48-63-INDEX PERIOD(5F7C=162.5MS/6934=170.9MS)
                           1752+*     "       TURESUL BIT 64-79-DIAGNOSTIC DATA RESULTS FROM WRAP TEST.
                           1753+*
                           1754+* RETURN CONTROL
                           1755+*
                           1756+*        B      TURTN*                    RETURN TO MDI SUPERVISOR
                           1757+*
002FC2  6F0D 2EEE          1758+*************************************************************************
002FC6  4020 2EB6 4853     1759+T4853  MVW   R7,TURTN                SAVE RETURN ADDRESS
002FCC  4424 2EB0          1760+       MVWI  X'4853',$TUID           SAVE TU ID FOR DISPLAY
002FD0  6E03 32BC          1761+       MVA   OPTN1,R4                SET UP POINTER ADRS IN R4
002FD4  32FA               1762+       BAL   $CONC,R6                CLEAR DEV DEP STG AND CONNECT I/O BL
                           1763+       DC    A($ERR$)                ERROR ADRS FOR INVALID PREP
                           1764+*
002FD6  CA25 18C8          1765        MVWZ  TURESUL,R2              CLEAR RESULTS WORD
002FDA  CA25 18CA          1766        MVWZ  TURESUL+2,R2            CLEAR RESULTS WORD 2
002FDE  CA25 18CC          1767        MVWZ  TURESUL+4,R2            CLEAR RESULTS WORD 3
002FE2  CA25 18CE          1768        MVWZ  TURESUL+6,R2            CLEAR RESULTS WORD 4
002FE6  CA25 18D0          1769        MVWZ  TURESUL+8,R2            CLEAR RESULTS WORD 5
002FEA  4224 18C8          1770        MVA   TURESUL,R2
002FEE  4024 5000          1771        MVWI  X'5000',R0              DELAY TO GET BY BUSY AFTER RESET
002FF2  B8EF               1772        JCT   *,R0                    *
002FF4  6E03 319A          1773        EAL   $DIAG,R6                READ DIAGNOSTIC
002FF8  3058               1774        DC    A(T53Z)                 ERROR
002FFA  4CA1               1775        TBTR  (R4,ER)                 CHECK FOR CC ERROR
002FFC  6A00 32FA          1776        BON   $ERR$                   ERROR
003000  8828 3120 18CA     1777        MVW   DIAGW,TURESUL+2         STORE DIAG RESULTS   (1ST WD)
003006  8828 3124 18CC     1778        MVW   DIAGW+4,TURESUL+4       *                    (3RD WD)
00300C  8828 3128 18CE     1779        MVW   DIAGW+6,TURESUL+6       *                    (5TH WD)
003012  8828 312C 18D0     1780        MVW   DIAGW+12,TURESUL+8      *                    (7TH WD)
003018  A828 3120 3122     1781        AW    DIAGW,DIAGW+2           CHECK ROS HASH TOTALS
00301E  402F 3122 FFFF     1782        CWI   X'FFFF',DIAGW+2         *
003024  1001              1783        JE    T53A                    CK
003026  4A4D               1784        TBTS  (R2,13)                 ROS ERROR
003028  A828 3124 3126     1785 T53A   AW    DIAGW+4,DIAGW+6         CHECK ROS HASH TOTALS
00302E  402F 3126 FFFF     1786        CWI   X'FFFF',DIAGW+6         *
003034  1001              1787        JE    T53B                    OK
003036  4A4D               1788        TBTS  (R2,13)                 ROS ERROR
003038  402F 3128 5F7C     1789 T53B   CWI   X'5F7C',DIAGW+8         IS 5TH WD BETWEEN X'5F7C' & '6934'
00303E  1405              1790        JLT   T53C                    ERROR
003040  402F 3128 6934     1791        CWI   X'6934',DIAGW+8         *
003046  1D01              1792        JGT   T53C                    ERROR
003048  5001              1793        J     T53D
00304A  4A4F              1794 T53C   TBTS  (R2,15)                 DISK SPEED INCORRECT
00304C  402B 312A 00FF     1795 T53D   TWI   X'00FF',DIAGW+10        ANY BITS ON IN 8-15 OF 6TH WD
003052  1003              1796        JOFF  T53X                    OK
003054  4A4E              1797        TBTS  (R2,14)                 ECHO CHECK ERROR
003056  5001              1798        J     T53X
003058  4A4C              1799 T53Z   TBTS  (R2,12)                 NO INTERRUPT RECEIVED
                          1800 T53X   TXIT  *                       EXIT
00305A  6802 334A         1801+T53X         $CONX                   RETURN TO MDI CONTROLLER
                          1802+*************************************************************************
                          1803        COPY  T48DCB
                          1804 *
                          1805 ***************************2/17/76**********************************
                          1806 *                                                                   *
                          1807 *     DCB TABLES                                                    *
                          1808 *                                                                   *
                          1809 *************************************************************************
                          1810 *
                          1811 ***** DIAGNOSTIC DCB   ********
                          1812 *
00305E  2000              1813 DGDCB DC    X'2000'                 DIAGNOSTIC DCB
003060  0000              1814       DC    X'0000'                 NOT USED
003062  0000              1815       DC    X'0000'                 NOT USED
003064  0000              1816       DC    X'0000'                 NOT USED
003066  0000              1817       DC    X'0000'                 NOT USED
003068  0000              1818       DC    X'0000'                 CHAIN ADDRESS
00306A  000E              1819       DC    X'000E'                 BYTE COUNT FOR READ DIAG
00306C  3120              1820       DC    A(DIAGW)                DATA ADDRESS
                          1821 *
                          1822 *
                          1823 ***** RECALIBRATE DCB  ********
                          1824 *
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 LOCTR  OBJECT TEXT        STMT SOURCE STATEMENT                                  COPYRIGHT IBM CORP 1976
00306E  0007              1825 CLDCB DC    X'0007'                 RECALIBRATE DCB
003070  00000000000000000 1826       DC    7A(*-*)
                          1827 *
                          1828 ***** FORMAT DCB  *******
                          1829 *
00307E  0002              1830 FRDCB DC    X'0002'                 FORMAT CONTROL WORD
003080  0000              1831       DC    X'0000'                 NOT USED
003082  0000              1832       DC    A(*-*)                  FORMAT DATA WORD
003084  0000              1833       DC    A(*-*)                  N - C BYTES
003086  0001              1834       DC    X'0001'                 H - R BYTES
003088  0000              1835       DC    A(*-*)                  CHAIN ADDRESS
00308A  0000              1836       DC    F'0'                    NOT USED
00308C  0000              1837       DC    F'0'                    NOT USED
                          1838 *
                          1839 ***** READ SECTOR ID DCB  *******
                          1840 *
00308E  200A              1841 RSDCB DC    X'200A'                 READ SECTOR ID
003090  0000              1842       DC    X'0000'                 NOT USED
003092  0000              1843       DC    X'0000'                 NOT USED
003094  0000              1844       DC    X'0000'                 NOT USED
003096  0000              1845       DC    X'0000'                 NOT USED
003098  0000              1846       DC    X'0000'                 CHAIN ADDRESS
00309A  0004              1847       DC    X'0004'                 BYTE COUNT FOR READ SECTOR ID
00309C  2EBE              1848       DC    A(SCTID)                SECTOR ID DATA ADDRESS
                          1849 *
                          1850 ***** SEEK DCB  ********
                          1851 *
00309E  0005              1852 SKDCB DC    X'0005'                 SEEK DCB
0030A0  0000              1853       DC    X'0000'                 BIT 3=HEAD;BIT 4=DIRECTION;8-15=DIFF
0030A2  0000              1854       DC    F'0'
0030A4  0000              1855       DC    F'0'
0030A6  0000              1856       DC    F'0'                    0-7 HEAD SELECT (NEW ARCH)
0030A8  0000              1857       DC    F'0'
0030AA  0000              1858       DC    F'0'
0030AC  0000              1859       DC    F'0'
                          1860 *
                          1861 *
                          1862 ***** CYCLE STEAL STATUS DCB  ********
                          1863 *
0030AE  2000              1864 CSDCB DC    X'2000'                 CONTROL WORD
0030B0  0000              1865       DC    F'0'                    NOT USED
0030B2  0000              1866       DC    F'0'                    NOT USED
0030B4  0000              1867       DC    F'0'                    NOT USED
0030B6  0000              1868       DC    F'0'                    NOT USED
0030B8  0000              1869       DC    F'0'                    NOT USED
0030BA  0004              1870       DC    X'0004'                 2 WORDS OF STATS
0030BC  2ED6              1871       DC    A(CSBUF)                ADDRESS OF CYCLE STEAL STATUS DATA
                          1872 *
                          1873 ***** WRITE DCB  **********
                          1874 *
0030BE  0001              1875 WRDCB DC    X'0001'                 8-15=1- ATA AM;8-15=2-CONTROL AM
0030C0  0000              1876       DC    F'0'                    NOT USED
0030C2  0000              1877       DC    F'0'
0030C4  0000              1878       DC    X'0000'                 SERCH ARGUMENT N-C
0030C6  0000              1879       DC    X'0000'                 SEARCH ARGUMENT H-R
0030C8  0000              1880       DC    A(*-*)                  CHAIN ADDRESS
0030CA  0000              1881       DC    F'0'                    BYTE COU T
0030CC  0000              1882       DC    A(*-*)                  WRITE DATA ADDRESS
                          1883 *
                          1884 ***** VERIFY DCB   *******
                          1885 *
0030CE  000C              1886 VRDCB DC    X'000C'                 CONTROL WORD
0030D0  0000              1887       DC    F'0'                    NOT USED
0030D2  0000              1888       DC    F'0'                    NOT USED
0030D4  0000              1889       DC    A(*-*)                  N-C
0030D6  0000              1890       DC    A(*-*)                  H-R
0030D8  0000              1891       DC    A(*-*)                  CHAIN ADDRESS
0030DA  0000              1892       DC    F'0'                    BYTE COUNT
0030DC  0000              1893       DC    A(*-*)                  VERIFY DATA ADDRESS
                          1894 *
                          1895 ***** READ DCB    *******
                          1896 *
0030DE  2009              1897 RDDCB DC    X'2009'                 READ DCB CONTROL WORD
0030E0  0000              1898       DC    F'0'                    NOT USED
0030E2  0000              1899       DC    F'0'                    NOT USED
0030E4  0000              1900       DC    X'0000'                 SEARCH ARGUMENT N-C
0030E6  0101              1901       DC    X'0101'                 SEARCH ARGUMENT H-R
0030E8  0000              1902       DC    A(*-*)                  CHAIN ADDRESS
0030EA  0D00              1903       DC    F'3328'                 BYTE COUNT
0030EC  0000              1904       DC    A(*-*)                  READ DATA ADDRESS
                          1905 *
                          1906 *
                          1907 *
                          1908 *
0030EE  1000              1909 COUNT DC    F'4096'                 BYTE COUNT (4096)
0030F0  0C80              1910 CTN32 DC    F'3200'                 BYTE COUNT (3200)
0030F2  0000              1911 SAVE  DC    X'0000'                 SCTID INFO
0030F4  0000              1912       DC    X'0000'                 *
0030F6  0000              1913 DIFF  DC    X'0000'                 SEEK DIFFERENCE
0030F8  00C8              1914 FDATA DC    X'00C8'                 FORMAT DATA BYTE FOR COMPARE
0030FA  0000              1915 XXX   DC    X'0000'                 WORK WORD INT TC ZERO
0030FC  0046              1916 ENDEX DC    X'0046'                 TERMINATING SEEK DIFFERENCE
0030FE  0000              1917 ZERO0 DC    X'0000'                 CONSTANT ZERO
003100  0001              1918 ONE1  DC    X'0001'                 CONSTANT ONE
003102  0800              1919 REVR  DC    X'0800'                 SEEK REVERSE
003104  0000              1920 HHRR  DC    X'0000'                 H-R
003106  0000              1921 BCNT  DC    X'0000'                 BYTE COUNT
003108  0000              1922 JCE   DC    X'0000'                 WRITE PARAMETER POINTER
00310A  0000              1923 JOE1  DC    X'0000'                 SAVE LOC FOR PARM LIST ADDRESS
00310C  7AE5              1924 WDATA DC    X'7AE5'                 WRITE DATA
00310E  69BD              1925       DC    X'69BD'                 *
003110  0000              1926 CYLND DC    X'0000'                 TEMP SAVE AREA FOR CYLINDER #
003112  0000              1927       DC    X'0000'                 *
003114  0000              1928 FORMT DC    X'0000'                 FROMAT BIT FROM OPERATOR
003116  004C              1929 CYLIN DC    X'004C'                 CYLINDER NUM SELECTED FROM OPERATOR
003118  0000              1930 HEAD  DC    F'0000'                 HEAD NUM SELECTED FROM OPERATOR
00311A  0001              1931 SECT  DC    F'0001'                 SECTOR # SELECT BY OPERATOR
00311C  0D00              1932 BYCNO DC    F'3328'                 BYTE COUNT SELECTED BY OPER
00311E  0000              1933 TABLE DC    A(*-*)                  ADDR OF WRT PAR LIST FOR FORMAT RTNS
003120  00000000000000000 1934 DIAGW DC    7A(*-*)                 DIAGNOSTIC BUFFER
00312E  0000              1935 CONST DC    X'0000'                 SECTOR # PLUS ONE FOR N='X'
003130  0000              1936 SBYT  DC    X'0000'                 FULL BYTE COUNT FOR N='X'
003132  00FF              1937 CDAT  DC    X'00FF'                 CONSTANT '00' & 'FF'
003134  0000              1938 CTR01 DC    X'0000'                 COUNTER 1
003136  0000              1939 CTR02 DC    X'0000'                 COUNTER 2
003138  0000              1940 CTR03 DC    X'0000'                 COUNTER 3
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 LOCTR  OBJECT TEXT        STMT SOURCE STATEMENT                                  COPYRIGHT IBM CORP 1976
00313A  0000              1941 CTR04 DC    X'0000'              COUNTER 4
00313C  0000              1942 CTR05 DC    X'0000'              COUNTER 5
00313E  0000              1943 SAVR3 DC    X'0000'              SAVE AREA
003140  0000              1944 SAVR5 DC    X'0000'              SAVE AREA
003142  0000              1945 SIDE  DC    X'0000'              SIDE BEING TESTED
003144  0000              1946 TRK   DC    X'0000'              CURRENT CYLINDER NUMBER
003146  0000              1947 WIDAT DC    X'0000'              WORK AREA
003148  4C00              1948 SVSIX DC    X'4C00'              CYLINDER NUMBER 76
                          1950       COPY  T48IO
                          1951 *                    4/15/76
                          1952 *     EXECUTE INPUT & OUTPUT COMMANDS
                          1953 *     TO EXECUTE ALL I/O COMMANDS FROM A COMMON PLACE.
                          1954 *     EACH OF THESE ENTRIES SET R7 WITH THE ADRS OF ITS PARAMETER
                          1955 *     LIST AND ANY SPECIAL SWITCHES BEFORE BRANCHING TO THE
                          1956 *     SUPVR CALL.
                          1957 *
                          1958 *     THIS SUBROUTINE WILL CHECK FOR THE FOLLOWING:
                          1959 *
                          1960 *     1. LOST INTERRUPTS BY TIMING OUT A COUNTING LOOP
                          1961 *     2. ERROR INTERRUPTS RECEIVED FROM SUPVR
                          1962 *     3. LOOP ON ERROR, THE CALL MUST HAVE A 'DC' STATEMENT AFTER
                          1963 *        THE CALL WITH THE ADDRESS OF THE RETRY STATEMENT
                          1964 *     4. CYCLE STEAL IN PROGRESS WITH AN ERROR
                          1965 *     5. SOMETHING ELSE
                          1966 *
                          1967 *     THIS ROUTINE HAS THE FOLLOWING ENTRIES:
                          1968 *
                          1969 * 1   BAL   $SEEK,R6               SEEK
                          1970 *
                          1971 * 2   BAL   $RECL,R6               RECALIBRATE
                          1972 *
                          1973 * 3   BAL   $RDID,R6               READ SECTOR ID
                          1974 *
                          1975 * 4   BAL   $RD,R6                 READ
                          1976 *
                          1977 * 5   BAL   $RDVY,R6               READ VERIFY
                          1978 *
                          1979 * 6   BAL   $WRT,R6                WRITE
                          1980 *
                          1981 * 7   BAL   $FMT,R6                FORMAT
                          1982 *
                          1983 * 8   BAL   XIOCS,R6               CYCLE STEAL STATUSB
                          1984 *
                          1985 * 9   BAL   $DIAG,R6              READ DIAGNOSTICS
                          1986 *
                          1987 *
00314A  4020 32AC 309E    1988 $SEEK MVA   SKDCB,IODCB           SET UP CONTROL BLOCK FOR SVC CALL
003150  502C              1989       J     XIO
                          1990 *
003152  4020 32AC 306E    1991 $RECL MVA   CLDCB,IODCB           SET UP BLOCK FOR SVC CALL
003158  5028              1992       J     XIO
                          1993 *
00315A  4020 32AC 308E    1994 $RDID MVA   RSDCB,IODCB           SET UP BLOCK FOR SVC CALL
003160  4020 2EBE 9999    1995       MVWI  X'9999',SCTID          INVALIDATE SECTOR ID BUFFER AREA
003166  4020 2EC0 9999    1996       MVWI  X'9999',SCTID+2        *
00316C  501E              1997       J     XIO
                          1998 *
00316E  0BFF              1999 $RD   MVBI  255,R3                INIT READ BUFFER TO FF'S
003170  6D08 30EC         2000       MVW   RDDCE+14,R5            *
003174  4724 0400         2001       MVWI  X'0400',R7             *
003178  2BAC              2002       FFN   R3,(R5)                *
00317A  4020 32AC 30DE    2003 $RD$  MVA   RDDCE,IODCB           SET UP BLOCK FOR SVC CALL
003180  5014              2004       J     XIO
                          2005 *
003182  4020 32AC 30CE    2006 $RDVY MVA   VRDCB,IODCB           SET UP CONTROL BLOCK FOR SVC CALL
003188  5010              2007       J     XIO
                          2008 *
00318A  4020 32AC 30BE    2009 $WRT  MVA   WRDCB,IODCB           SET UP CONTROL BLOCK FOR SVC CALL
003190  500C              2010       J     XIO
                          2011 *
003192  4020 32AC 307E    2012 $FMT  MVA   FRDCB,IODCB           SET UP CONTROL BLOCK FOR SVC CALL
003198  5008              2013       J     XIO
00319A  4020 32AC 305E    2014 $DIAG MVA   DGDCB,IODCB           SET UP CONTROL BLOCK FOR SVC CALL
0031A0  4020 32AE 000D    2015       MVWI  X'000D',ICMOD          MODIFIER FOR DIAG OP
0031A6  500E              2016       J     XIO1
0031A8  5601              2017 CEOP2 BXS   (R6,2)               DUMMY RETURN TO USER
                          2018 *
                          2019       XEQIT 1
                          2020+*****************************************************29JUL76**
                          2021+*
                          2022+** SUB-ROUTINE
                          2023+*
                          2024+**     EXECUTE INPUT AND OUTPUT COMMANDS
                          2025+*
                          2026+** PURPOSE
                          2027+*
                          2028+**     TO EXECUTE ALL I/O COMMANDS FROM A COMMON PLACE.
                          2029+**     THIS SUBROUTINE WILL DO THE FOLLOWING FUNCTIONS:
                          2030+*
                          2031+**        1. SAVE THE ADDRESS THAT POINTS TO THE INSTRUCTION THAT STARTED
                          2032+**           THE I/O COMMAND.
                          2033+**        2. SAVES THE DCB BLOCK USED UNLESS IT IS A START CYCLE STATUS
                          2034+**           ISSUED BY THIS SUBROUTINE.
                          2035+**        3. CLEAR OUT THE CYCLE STEAL STATUS STORAGE UNLESS THE
                          2036+**           START CYCLE STATUS WAS ISSUED BY THIS SUBROUTINE.
                          2037+**        4. RESETS THE INTERRUPT INDICATOR AND CHECKS FOR ANY INTERRUPT
                          2038+**           SINCE THE LAST EXPECTED INTERRUPT. IF AN INTERRUPT IS FOUND,
                          2039+**           MYSTERY INTERRUPT (MI) CONTROL BIT IS SET.
                          2040+**        5. MOVES THE ADDRESS OF THE I/O CONTROL BLOCK IN R7, SET THE
                          2041+**           EXPECTED INTERRUPT CONTROL BIT AND ISSUE THE 'SVC  START'.
                          2042+**        6. WHEN THE SUPVR RETURNS AFTER ISSUING THE I/O COMMAND, TIMING
                          2043+**           STARTS TO DETERMINE A LOST INTERRUPT.
                          2044+**        7. EXCEPT THE INTERRUPT AND GATHER INFORMATION TO DETERMINE IF IT
                          2045+**           WAS AN ERROR OR OKAY AND EXIT OFF THE INTERRUPT LEVEL.
                          2046+**        8. CHECK IF THERE WAS A WRONG INTERRUPT LEVEL.
                          2047+**        9. CHECK IF AN ERROR WAS EXPECTED AND IF THERE WAS RETURN.
                          2048+**       10. CHECK IF THERE WAS AN ERROR CONDITION, IF NOT RETURN.
                          2049+**       11. CHECK TO SEE IF THE EXERCISER IS TO BE TERMINATED.
                          2050+**       12. CHECK IF A CYCLE STEAL OPERATION WAS IN PROGRESS THAT WAS
                          2051+**           ISSUED BY THIS SUBROUTINE.
                          2052+**       13. CHECK THE ISB BITS THAT ARE ON. IF BIT 0 IS ON, ISSUE A
                          2053+**           CYCLE STEAL STATUS COMMAND. CHECK FOR ANY OTHER BIT BEING ON,
                          2054+**           COUNT IT AND SET UP THE PROPER ERROR MESSAGE TO BE PRINTED.
                          2055+**
                          2056+** CALLING SEQUENCE
                          2057+**
```



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 LOCTR  OBJECT TEXT        STMT SOURCE STATEMENT                                  COPYRIGHT IBM CORP 1976
                          2058+*     THIS ROUTINE HAS THE FOLLOWING ENTRIES:
                          2059+*
                          2060+** --> BAL   XIO        OR          XEQ ANY CYCLE STEAL COMMAND, MOD=0
                          2061+** --> BAL   XIO1                  MOD PARM PRELOADED IN 'IOMOD'
                          2062+** --> BAL   XIOCS,R6    OR        XEQ START CYCLE STEAL STATUS, MOD=F
                          2063+** --> BAL   XIOCS-4,R6           AUTO CS STATUS (FOLLOWING OTHER XIO
                          2064+**           -                    AND DOES NOT POST INTERRUPT STATUS)
                          2065+*
                          2066+* RETURN CONTROL
                          2067+*
                          2068+*     BXS   (R6,2)               RETURN TO USER NO ERROR
                          2069+* OR  B     (R6)*                RETURN AND RETRY ON ERROR
                          2070+*****************************************************************
0031AA  CB25 32AE         2072+XIO   MVWZ  IOMOD,R3             SET MOF OF 0 FOR CYCLE STEAL OP
0031AE  500A              2073+      J     XIO1                 CS I/O'S ARE NOT RETRIED
                          2074+*
0031B0  4CAA              2075+      TBTR  (R4,CE)              RESET CS STATUS INTER ERROR INDICAT.
0031B2  4C68              2076+      TBTS  (R4,CS)              SET 'CYCLE STEAL STATUS' IN PROGRESS
0031B4  4020 32AC 30AE    2077+XIOCS MVA   CSDCB,IODCB          SET UP CONTROL BLOCK FOR SVC CALL
0031BA  4020 32AE 000F    2078+      MVWI  X'000F',IOMOD        SET CYCLE STEAL MODIFIER
0031C0  4C28              2079+      TBT   (R4,CS)              IS CS IN PROGRESS, ERROR CONDITION
0031C2  1213              2080+      JNN   XIO2                 * YES, BYPASS SAVING I/O ADRS
0031C4  6E0D 2EBC         2081+XIO1  MVW   R6,LSTIO             SAVE IAR FOR RETRY IF REQUESTED
0031C8  4324 2EC6         2082+      MVA   DCBUF,R3             SET UP TO ADRS TO MOVE DCB TABLE
0031CC  6D08 32AC         2083+      MVW   IODCE,R5             * AND THE FROM ADRS, ALONG WITH
0031D0  0F10              2084+      MVBI  16,R7                * THE NUMBER OF MOVES
0031D2  2D64              2085+      MVFN  (R5),(R3)            MOVE 1 STATUS WORD AND ADJUST
0031D4  0BFF              2086+      MVBI  255,R3               CLEAR CYCLE STATUS BUFFER
0031D6  4524 2ED6         2087+      MVA   CSBUF,R5             *  TO ALL ONES  *
0031DA  0F10              2088+      MVBI  16,R7                *
0031DC  2BAC              2089+      FFN   R3,(R5)              *
0031DE  4020 2EB8 0708    2090+      MVWI  X'0708',$IOIN        OVERLAY OLD CONDITION CODES
0031E4  CB25 2EBA         2091+      MVWZ  $ISB,R3              ZERO OUT OLD ISB VALUE
                          2092+*
0031E8  4CA1              2093+      TBTR  (R4,ER)              RESET ANY ERROR BEFORE I/O COMMAND
0031EA  4CA3              2094+XIO2  TBTR  (R4,IN)              CLEAR INTERRUPT RECEIVED CNTL BIT
0031EC  4724 32A8         2095+      MVA   IOBLK,R7             SET UP CONTROL BLOCK FOR SUPVR
0031F0  4CA6              2096+      TBTR  (R4,$LE)             RESET LEVEL ERROR INDICATOR
0031F2  4C62              2097+      TBTS  (R4,XI)              SET EXPECTED INTR CONTROL BIT
0031F4  600A              2098+      SVC   START                CALL SUPVR FOR I/O COMMAND
                          2099+*
0031F6  4CA7              2100+      TBTR  (R4,NI)              IS AN INTR EXPECTED
0031F8  6AC0 0002         2101+      BN    (R6,2)               * NO, RETURN TO USER
                          2102+*
                          2103+*           THE INTR SHOULD OCCUR WHILE SPINNING IN THE NEXT SECTION
                          2104+*
0031FC  0D00              2105+      MVBI  X'00',R5             SET UP WORK REG FOR 'LOST INTR'
0031FE  4CA3              2106+XIO8  TBTR  (R4,IN)              HAS INTERRUPT BEEN RECEIVED
003200  1238              2107+      JON   XIOCK                * YES, CHECK IF ALL WAS SATISFACTORY
003202  6002              2108+      SVC   IDLE                 ALLOW ANOTHER PROGRAM A CHANCE TO RUN
                          2109+*                                SUPVR WILL RETURN HERE
003204  7DA1 0001         2110+      AWI   1,R5                 ADVANCE TIME OUT COUNT
003208  18FA              2111+      JNZ   XIO8                 BCH IF TIME OUT NOT REACHED
00320A  4C61              2112+      TBTS  (R4,ER)              SET ON ERROR CONTROL BIT
00320C  68D2 0000         2113+      B     (R6)*                ERR 'NO INTERRUPT'
                          2115+*****************************************************03FEB76**
                          2116+*
                          2117+* SUBROUTINE
                          2118+*
                          2119+*     I/O EXECUTE ERROR HANDLING ROUTINE
                          2120+*
                          2121+* PURPOSE
                          2122+*
                          2123+*     THIS ROUTINE WILL COLLECT INFORMATION TO HELP DETERMINE THE
                          2124+*     PROBLEM THAT WAS FOUND WHEN THE I/O COMMAND WAS ISSUED BY THE
                          2125+*     SUPERVISOR AND IT WAS NOT ACCEPTED.
                          2126+*
                          2127+* CALLING SEQUENCE
                          2128+*
                          2129+*     SUPVR WILL ENTER WHEN AN ERROR OCCURS ON AN I/O COMMAND
                          2130+*
                          2131+* RETURN CONTROL
                          2132+*
                          2133+*     B     (R6)*                RETURN TO USERS ERROR HANDLER
                          2134+*
                          2135+*****************************************************************
                          2136+*
                          2137+* CC        0= DEVICE NOT ATTACHED
                          2138+* FOR       1= DEVICE BUSY
                          2139+* I/O       2= DEVICE BUSY AFTER RESET
                          2140+*           3= COMMAND REJECT
                          2141+*           4= INTERVENTION REQUIRED
                          2142+*           5= INTERFACE DATA CHECK
                          2143+*           6= CONTROLLER BUSY
                          2144+*           7= I/O COMMAND EXCEPTED
                          2145+*
003210  706E              2146+XIOER DC    X'706E'              COPY STATUS ANY LEVEL INTO R3
003212  336A              2147+      SRL   13,R3                POSITION CC CODE TO BITS 13-15
003214  C328 2EB8         2148+      MVB   R3,$IOIN             * PUT IN LOG OUT AREA
003218  68D2 0000         2149+      B     (R6)*                RETURN TO USER ERROR HANDLER
                          2151+*****************************************************14APR76**
                          2152+*                                                                IL
                          2153+* SUB-ROUTINE                                                    IL
                          2154+*                                                                IL
                          2155+*     ERROR INTERRUPT            RUNS ON INTERRUPT LEVEL '$INTL'  IL
                          2156+*                                                                IL
                          2157+* PURPOSE                                                       IL
                          2158+*                                                                IL
                          2159+*     THIS ROUTINE WILL BE ENTERED WHEN THE SUPVR DETECTS AN ERROR  IL
                          2160+*     OR THE INTERRUPTING CONDITION CODE DOES NOT AGREE WITH THE     IL
                          2161+*     EXPECTED CODE.                                             IL
                          2162+*                                                                IL
                          2163+* CALLING SEQUENCE                                              IL
                          2164+*                                                                IL
                          2165+*     SUPVR WILL ENTER WHEN AN ERROR OCCURS ON AN I/O INTERRUPT   IL
                          2166+*                                                                IL
                          2167+* RETURN CONTROL                                                IL
                          2168+*                                                                IL
                          2169+*     SVC   EXIT                 RETURN TO USER VIA SUPVR        IL
                          2170+*                                                                IL
                          2171+*****************************************************************IL
                          2172+*                                                                IL
                          2173+* CC        0= CONTROLLER END                ISB   0= ADD STATUS   IL
                          2174+* FOR       1= PROGRAM CONTROL INTERRUPT     BITS  1= COMD REJECT  IL
                          2175+* INTR      2= EXCEPTION INTERRUPT           FOR   2= INCOR LENGTH IL
                          2176+*           3= DEVICE END INTERRUPT          INTR  3= DCB SPEC CK  IL
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 LOCTR  OBJECT TEXT      STMT SOURCE STATEMENT                    COPYRIGHT IBM CORP 1976

                         2177+*          4= ATTENTION INTERRUPT              4= STG DATA CK   IL
                         2178+*          5= ATTENTION / PROGRAM CNTL INTR    5= INV STG ADRS  IL
                         2179+*          6= ATTENTION / EXCEPTION INTR       6= PROTRCT CK    IL
                         2180+*          7= ATTENTION / DEVICE END INTR      7= I-FACE DATA   IL
                         2181+*                                                               IL
003210   706E            2182+INTER DC   X'706E'             COPY STATUS ANY LEVEL INTO R3    IL
003212   336A            2183+      SRL  13,R3               POSITION INDICATORS IN R3        IL
003214   4424 2EB0       2184+      MVA  OPTN1,R4            SET UP BASE ADRS                 IL
003218   4C28            2185+      TBT  (R4,CS)             IS CS IN PROGRESS                IL
00321A   1006            2186+      JOFF INTES               * NO                             IL
00321C   4C6A            2187+      TBTS (R4,CE)             TURN ON CYCLE STEAL INTER ERROR  IL
00321E   6F0D 2EE4       2188+      MVW  R7,CSTL8            SAVE CS ERR ISB VALUE, BITS 0-7  IL
003222   C328 2EE5       2189+      MVB  R3,CSTL8+1          * AND THE COND CODE              IL
003226   500A            2190+      J    INTR1                                               IL
003228   4C24            2191+INTES TBT  (R4,XE)             TEST  EXPECTED ATTEN / ERROR IND IL
00322A   1002            2192+      JOFF INTET               BCH IF NOT EXPECTED              IL
00322C   F304            2193+      CBI  4,R3                IS THIS AN 'ATTENTION' INTR      IL
00322E   1006            2194+      JE   INTR1               * YES, BCH TO END INTR SEQUENCE  IL
003230   4C61            2195+INTET TBTS (R4,ER)             SET ERROR ON I/C COMMAND CNTL BIT IL
003232   5004            2196+      J    INTR1                                               IL
                         2197+*                              THE ERROR INTERRUPT USES THE SAME IL
                         2198+*                              ENDING SEQUENCE AS THE NORMAL INTR IL
                         2200+*************************************************************14APR76IL
                         2201+*                                                               IL
                         2202+* SOUBROUTINE                                                  IL
                         2203+*                                                               IL
                         2204+*      OKAY  INTERRUPT         RUNS ON INTERRUPT LEVEL '$INTL'  IL
                         2205+*                                                               IL
                         2206+* PURPOSE                                                      IL
                         2207+*                                                               IL
                         2208+*      TO CHECK THE INTERRUPT AND CONTINUE THE TEST             IL
                         2209+*                                                               IL
                         2210+* CALLING SEQUENCE                                            IL
                         2211+*                                                               IL
                         2212+*      SUPERVISOR WILL ENTER HERE  IF INTR CC IS AS REQUESTED   IL
                         2213+*      THE ERROR INTERRUPT HANDLER WILL BRANCH TO THIS ROUTINE  IL
                         2214+*      AFTER THE SPECIAL PART HAS BEEN COMPLETED  AND THE       IL
                         2215+*      COMMON SECTION IS HANDLED HERE.                          IL
                         2216+*                                                               IL
                         2217+* RETURN CONTROL                                              IL
                         2218+*                                                               IL
                         2219+*      SVC   EXIT              RETURN TO USER VIA SUPVR         IL
                         2220+*                                                               IL
                         2221+*************************************************************IL
003240   706E            2222+INTOK DC   X'706E'             COPY STATUS ANY LEVEL INTO R3    IL
003242   336A            2223+      SRL  13,R3               POSITION INDICATORS IN R3        IL
003244   4424 2EB0       2224+      MVA  OPTN1,R4            SET UP BASE ADRS                 IL
003248   4C63            2225+INTR1 TBTS (R4,IN)             SET  INTERRUPT RECEIVED          IL
00324A   4C28            2226+      TBT  (R4,CS)             IS 'CS IN PROGRESS' ON           IL
00324C   1204            2227+      JCN  INTR2               * YES, BCH AROUND UPDATE         IL
00324E   C328 2EB9       2228+      MVB  R3,$ICIN+1          SAVE INTERRUPTING CC CODE        IL
003252   6F0D 2EBA       2229+      MVW  R7,$ISB             SAVE INTR STATUS AND DEV ADRS    IL
003256                   2230+INTR2 EQU  *                                                   IL
003256   3521            2231+      CPCL R5                  CURRENT LEVEL COPIED BY DCP      IL
003258   0501            2232+      SLL  4,R5                POSITION INTR LEVEL AND PUT      IL
00325A   CD24 2EEC       2233+      ABI  1,R5                * IN 'I' BIT                     IL
00325E   1002            2234+      CW   $INTL,R5            IS THIS THE CORRECT INTR LEVEL   IL
003260   4C66            2235+      JE   INTR3               * YES, GO EXIT THIS LEVEL        IL
003262   4C61            2236+      TBTS (R4,SLE)            SET INTR LEVEL ERROR CONTROL BIT IL
003264   4CA2            2237+      TBTS (R4,ER)             SET ERROR ON I/O COMMAND CNTL BIT IL
003266   1204            2238+INTR3 TBTR (R4,XI)             WAS INTERRUPT EXPECTED           IL
003268   4C60            2239+      JON  INTRX               * YES, EXIT OFF THIS INTR LEVEL  IL
00326A   F304            2240+      TBTS (R4,MI)             * NO, SET MYSTERY INTR CONTROL BIT IL
00326C   1001            2241+      CBI  4,R3                ATTENTION INTERRUPT?             IL
00326E   4C6C            2242+      JE   INTRX               YES                              IL
003270   6006            2243+      TBTS (R4,NG)             ERROR,UNEXPECTED INTERRUPT       IL
                         2244+INTRX SVC  EXIT                EXIT THIS LEVEL VIA SUPVR TO PGM IL
                         2246+*************************************************************03FEB76**
                         2247+*                                                               IL
                         2248+*      THIS IS THE CONTINUATION OF EXECUTE I/O AFTER THE INTERRUPT
                         2249+*      HAS BEEN SERVICED. THE EXERCISER FINDS AN INTERRUPT HAS BEEN
                         2250+*      RECEIVED AND BRANCHES HERE TO CHECK FOR ANY ERROR CONDITIONS.
                         2251+*                                                               IL
                         2252+*                                                               IL
003272   4CA4            2253+XIOCK TBTR (R4,XE)             WAS AN ERROR EXPECTED            IL
003274   6AC0 0002       2254+      BN   (R6,2)              * YES, EXIT THIS ROUTINE         IL
003278   4CA8            2255+      TBTR (R4,CS)             WAS AUTO CS IN PROGRESS          IL
00327A   1006            2256+      JOFF XIOCV               * NO, CONTINUE CHECKING          IL
00327C   4C2A            2257+      TBT  (R4,CE)             IS CS IN AN ERR CONDITION        IL
00327E   1002            2258+      JOFF XIOCO               * NO, BCH                        IL
003280   6AD2 0000       2259+      B    (R6)*               CS ERROR                         IL
003284   4C69            2260+XIOCO TBTS (R4,CSA)            TURN ON CS STATS AVAIL FLAG      IL
003286   5601            2261+      BXS  (R6,2)              GO TO USER                       IL
003288   4C21            2262+XIOCV TBT  (R4,ER)             WAS ERROR INTR CONTROL BIT ON    IL
00328A   100B            2263+      JOFF XIOCX               * NO, EXIT THIS ROUTINE          IL
                         2264+*                                                               IL
00328C   C520 2EB9       2265+      MVB  $IOIN+1,R5          GET LAST INTR CC CODE            IL
003290   F502            2266+      CBI  2,R5                IS THIS CC=2                     IL
003292   6AD1 0000       2267+      BNE  (R6)*               * NO, BCH TO ERROR HANDLER       IL
003296   C520 2EBA       2268+XIOCQ MVB  $ISB,R5             GET LAST ISB DATA BYTE AND IF CS IL
00329A   6A00 31B0       2269+      BN   XIOCS-4             * AVAILAELS, GO AND GET IT       IL
00329E   68D2 0000       2270+      B    (R6)*               ERROR                            IL
0032A2   CB25 2EB4       2271+XIOCX MVWZ OPTN3,R3            CLEAR OUT OPTION 3 CNTL BITS     IL
0032A6   5601            2272+      BXS  (R6,2)              RETURN TO USER VIA REG 6         IL
                         2273+*                                                               IL
                         2274+*           I/O   PARAMETER LIST                                IL
                         2275+*                                                               IL
0032A8   19D0            2276+IOBLK DC   A(DEVADD)           ADRS OF DEVICE ADRS              IL
0032AA   3210            2277+      DC   A(XIOER)            ERROR ROUTINE ADRS               IL
0032AC   0000            2278+IODCB DC   A(*-*)              DCB ADRS OR LEVEL & INTR         IL
0032AE   0000            2279+IOMOD DC   A(*-*)              MODIFIER                         IL
0032B0   0000            2280+      DC   A(*-*)              ADRS OF LAST SVC CALL            IL
0032B2   0000            2281+IORSP DC   A(*-*)              SECOND WORD OF LAST IDCB         IL
                         2282+*                                                               IL
                         2283+*           INTERRUPT CONTROL BLOCK FOR I/C COMMANDS             IL
                         2284+*                                                               IL
0032B4   19D0            2285+INTBL DC   A(DEVADD)           ADRS OF DEVICE ADRS              IL
0032B6   3240            2286+      DC   A(INTOK)            INTERRUPT OK RETURN ADRS         IL
0032B8   321C            2287+      DC   A(INTER)            INTERRUPT ERROR ADRS             IL
0032BA   0003            2288+INTCC DC   X'0003'              INTERRUPT CODE EXPECTED          IL
                         2290+*************************************************************11MAY76**
                         2291+*                                                               IL
                         2292+* SUBROUTINE                                                   IL
                         2293+*                                                               IL
                         2294+*      CONNECT INTERRUPT CONTROL BLOCK & PREPARE DEVICE         IL
                         2295+*                                                               IL
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 LOCTR  OBJECT TEXT      STMT SOURCE STATEMENT                    COPYRIGHT IBM CORP 1976

                         2296+* PURPOSE                                                      IL
                         2297+*                                                              IL
                         2298+*      TO CONNECT THE INTERRUPT CONTROL BLOCK TO THIS DEVICE AND IL
                         2299+*      PREPARE ON THE DESIRED INTERRUPT LEVEL AND TO ALLOW THE DEVICE
                         2300+*      TO INTERRUPT.                                           IL
                         2301+*                                                              IL
                         2302+* CALLING SEQUENCE                                           IL
                         2303+*                                                              IL
                         2304+*      THIS SUBROUTINE HAS THE FOLLOWING ENTRIES:              IL
                         2305+*                                                              IL
                         2306+* --> BAL   $CONC,R6             CLEAR DEV DEP STG AND CONNECT I/O BLK
                         2307+* --> BAL   $CONP,R6             PREPARE DEVICE ONLY, ALREADY CONNECT
                         2308+*                                                              IL
                         2309+* RETURN CONTROL                                             IL
                         2310+*                                                              IL
                         2311+*      BXS   (R6,2)             RETURN TO USER VIA REG 6 IF OKAY
                         2312+* OR  B     (R6)*               IF THE DEVICE COULD NOT BE CONNECTED
                         2313+*                                                              IL
                         2314+*************************************************************IL
0032BC   0F06            2315+$CCNC MVBI  6,R7               NUMBER OF BYTE TO CLEAR          IL
0032BE   0B00            2316+      MVBI  0,R3               * AND THE DATA TO USE            IL
0032C0   4524 2EBE       2317+      MVA   DEV1,R5            * ALONG WITH THE ADRS TO USE     IL
0032C4   2BAC            2318+      FFN   R3,(R5)            *                                IL
0032C6   CB25 2EB4       2319+      MVWZ  OPTN3,R3           CLEAR OLD CONTROLS FOR NEW ROUTINE
0032CA   4724 2EF2       2320+      MVA   SVCAL,R7           SET UP TO REQUEST DCP SUPR DISK  IL
0032CE   6016            2321+      SVC   REQSD              *                                IL
0032D0   0FFF            2322+      MVBI  -1,R7              SET UP DELAY FOR IBIS            IL
0032D2   BFFF            2323+      JCT   *,R7               * AND DECREMENT IT DOWN          IL
0032D4   4724 32B4       2324+      MVA   INTBL,R7           SET R7 TO CONTROL BLOCK AND      IL
0032D8   6014            2325+      SVC   CICB               * CONNECT IT TO THIS DEVICE      IL
0032DA   6AD0 0000       2326+      BN    (R6)*              ERROR RETURN TO USER             IL
                         2327+*                                                              IL
0032DE   8828 2EEC 32AC  2328+$CONP MVW   $INTL,IODCB        PUT IN LEVEL & INTR PARAMETER    IL
0032E4   4724 32A8       2329+      MVA   IOBLK,R7           SET R7 TO CONTROL BLOCK TO PREPARE
0032E8   4020 2EB8 0708  2330+      MVWI  X'0708',$IOIN      INITIALIZE CONDITION CODE STORAGE
0032EE   CB25 2EBA       2331+      MVWZ  $ISB,R3            * AND CLEAR OLD ISB VALUE        IL
0032F2   6E0D 2EBC       2332+      MVW   R6,LSTIO           SET UP ADDRESS THAT STARTED LAST I/O
0032F6   600C            2333+      SVC   PREP               * AND CALL ON SUPVR              IL
0032F8   5601            2334+      BXS   (R6,2)             RETURN TO USER                   IL
                         2336+*************************************************************06APR76**
                         2337+*                                                              IL
                         2338+* SUBROUTINE                                                  IL
                         2339+*                                                              IL
                         2340+*      DISCONNECT THE INTERRUPT CONTROL BLOCK AND LOG ERRORS    IL
                         2341+*                                                              IL
                         2342+* PURPOSE                                                     IL
                         2343+*                                                              IL
                         2344+*      DISCONNECT THE INTERRUPT CONTROL BLOCK TO THIS DEVICE AND
                         2345+*      SET THE 'NO GOOD' CONTROL BIT, THEN LOG THE DATA THAT HAS
                         2346+*      BEEN FOUND TO HELP THE OPERATOR DEFINE THE ERROR CONDITION.
                         2347+*                                                              IL
                         2348+* CALLING SEQUENCE                                           IL
                         2349+*                                                              IL
                         2350+*      THIS SUBROUTINE HAS THE FOLLOWING ENTRIES:              IL
                         2351+*                                                              IL
0032FA   4020 1818 8000  2352+* --> B     $ERR$               SET 'NG' BIT AND CONVERT DATA TO LOG
003300   4724 3470       2353+* --> B     $CONX               RETURN TO MDI SUPERVISOR TO TEST STS
003304                   2354+*                                                              IL
003304                   2355+* RETURN CONTROL                                             IL
003306                   2356+*                                                              IL
003308   4324 181A       2357+*      B     TURTN*              RETURN TO MDI                    IL
00330C   6B0D 3468       2358+* OR  B     (R6)*               IF THE DEVICE COULD NOT BE CONNECTED
003310   4124 3398       2359+*                                                              IL
003314   0F04            2360+*************************************************************IL
003316   0E08            2361+$ERR$ MVWI  X'8000',TUSTATUS    SET ON 'NO GOOD' STATUS BIT      IL
003318   2B2A            2362+      MVA   HEBLK,R7           GET ADRS OF CONTROL BLOCK        IL
00331A   0F04            2363+      SVC   HEXE               CONVERT HEX TO EBC VIS DCP       IL
00331C   0A40            2364+$PRNT MVEI  3,R5                                               IL
00331E   C258            2365+      MVA   TUWCBK,R3          SET UP BUFFER STORAGE            IL
003320   BEFB            2366+      MVW   R3,BUFPT                                           IL
003322   0E08            2367+      MVA   LINE1,R1                                           IL
003324   7921 002C       2368+      MVBI  4,R7                                               IL
003328   BDF7            2369+      MVBI  8,R6                                               IL
00332A   4020 1802 F1F0  2370+MVBUF MVFN  (R3),(R1)                                         IL
003330   4020 19B8 346E  2371+      MVBI  4,R7                                               IL
003336   4020 19BA 346A  2372+      MVBI  X'40',R2                                           IL
00333C   402C 19C4 0080  2373+      MVB   R2,(R1)+                                           IL
003342   4324 2EB6       2374+      JCT   MVBUF,R6                                           IL
003346   6F13 18BA       2375+      MVBI  8,R6                                               IL
                         2376+      AWI   44,R1                                              IL
00334A                   2377+      JCT   MVBUF,R5                                           IL
00334A   8028 2EBF 2EF5  2378+      MVWI  PIDMSG10,PID+2                                     IL
003350   4724 2EF2       2379+      MVA   FAKETU,@DCADD1                                     IL
003354   6017            2380+      MVA   DC2PT,@DCADD2                                      IL
003356   C720 19D0       2381+      OWI   BIT00080,SUPSTAT                                   IL
00335A   6013            2382+      MVA   $TUID,R3           SET UP BUFFER STORAGE           IL
00335C   6812 2EEE       2383+      BAL   TUMSGWTR*,R7       GO TO MESSAGE WRITER            IL
                         2384+*                                                              IL
                         2385+$CONX  EQU   *                                                 IL
003360   0007            2386+      MVB   SCTID+1,SVCAL+3    SETUP CURRENT CYLINDER NUM       IL
003362   0008            2387+      MVA   SVCAL,R7           ADDR OF RELEASE PARM LIST        IL
003364   5C5C40C1C2D6D9E3 2388+      SVC   RELSD              RELEASE CONTROL                  IL
00336C   0028            2389+      MVB   DEVADD,R7          GET DEVICE ADDRESS FROM MDI      IL
00336E   E3E4C9C440C9D6C9D 2390+    SVC   RICB               RELEASE INTERRUPT CONTROL BLOCK  IL
003396   0028            2391+      B     TURTN*             RETURN TO MDI SUPERVISOR         IL
003398   4040404040404040 2392+*                                                             IL
0033C0   0028            2393+BEGIN DC    A(0007)            NUMBER OF LINES TO PRINT         IL
0033C2   C3D5E3D340C4C3C2F 2394+    DC    A(0008)            LINE LENGTH = 8 CHAR             IL
0033EA   0028            2395+      DC    C'** ABORT'                                         IL
0033EC   4040404040404040 2396+     DC    A(0040)            LINE LENGTH = 40 CHAR            IL
003414   0028            2397+      DC    C'TUID IOIN ISB  INST DEV1 DEV2 DEV3 DEV4 '         IL
003416   D9E2C9C440C3E260F 2398+     DC    A(0040)            LINE LENGTH = 40 CHAR            IL
00343E   0028            2399+LINE1 DC    C'                 '                                IL
003440   4040404040404040 2400+      DC    A(0040)            LINE LENGTH = 40 CHAR            IL
                         2401+      DC    C'CNTL DCB2 DCB3 DCB4  DCB5 CHAD BYCT ADRS '        IL
                         2402+      DC    A(0040)            LINE LENGTH = 40 CHAR            IL
                         2403+LINE2 DC    C'                 '                                IL
                         2404+      DC    A(0040)            LINE LENGTH = 40 CHAR            IL
                         2405+      DC    C'RSID CS-2 CS-3 CS-4  CS-5 CS-6 CS-7 CS-8 '        IL
                         2406+      DC    A(0040)            LINE LENGTH = 40 CHAR            IL
                         2407+LINE3 DC    C'                 '                                IL
                         2408+*                                                              IL
003468   0000            2409+BUFPT DC    A(*-*)                                           IL
00346A   3360            2410+DC2PT DC    A(BEGIN)                                         IL
00346C   0101            2411+FIXTU DC    X'0101'                                          IL
00346E   0101            2412+FAKETU   DC  X'0101'                                          IL
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 LOCTR  OBJECT TEXT      STMT SOURCE STATEMENT                    COPYRIGHT IBM CORP 1976
00F1F0                   2413+PIDMSG10 EQU   X'F1F0'
000080                   2414+BIT0080  EQU   X'0080'
                         2415+*
                         2416+*      DATA CONTROL BLOCK FOR CONVERTING HEX TO EBCDIC
                         2417+*
003470  0030             2418+HEBLK  DC    A(48)                  NUMBER OF BYTES TO CONVERT
003472  2EB6             2419+       DC    A($TUID)               FROM ADRS
003474  181A             2420+       DC    A(TUWORK)              AND THE TO ADRS
                         2421 *
                         2423        COPY  T3C00
                         2424 T3C00 TUIT   ,1
                         2425+*********************************************************06FEB76**
                         2426+*
                         2427+* TEST UNIT
                         2428+*
                         2429+*      DIRECT PROGRAM CONTROL TEST UNIT                  04MAY76
                         2430+*
                         2431+* PURPOSE
                         2432+*
                         2433+*      THREE PARAMETERS ARE NEEDED FOR THE EXECUTION OF THIS TU AND ARE
                         2434+*      .
                         2435+*      1. ONE BYTE OF FUNCTION-MODIFIER,IE, X'60' FOR PREPARE
                         2436+*      2. TWO BYTES OF DATA TO BE USED IN THE SECOND PART OF THE IDCB,
                         2437+*      .  IE, X'0005' TO SELECT LEVEL 2 FOR AN INTERRUPT.
                         2438+*
                         2439+* CALLING SEQUENCE
                         2440+*
                         2441+*      MDI=@TUXX,T3C00,2,0708,EQ,PLNG=6,PRAM=FFXXXX'
                         2442+*
                         2443+* RETURN CONTROL
                         2444+*
                         2445+*       B      TURTN*                 RETURN TO MDI SUPERVISOR
                         2446+*
                         2447+*************************************************************************
003476  6F0D 2EEE        2448+T3C00  MVW   R7,TURTN                 SAVE RETURN ADDRESS
00347A  4020 2EB6 3C00   2449+       MVWI  X'3C00',$TUID            SAVE TU ID FOR DISPLAY
003480  4424 2EB0        2450+       MVA   CPTN1,R4                 SET UP POINTER ADRS IN R4
                         2451+*
003484  4724 32B4        2452        MVA   INTBL,R7                 SET R7 TO CONTROL BLOCK AND
003488  6014             2453        SVC   CICE                     * CONNECT IT TO THIS DEVICE
00348A  4020 2EB8 0708   2454        MVWI  X'0708',$IOIN            INIT THE CONDITION CODES
003490  6908 189A        2455        MVW   TUPARM1,R1               SET UP PARM ADRS
003494  8118 34E6        2456        MVB   (R1)+,T3C00I             * AND SET IN FUNCTION-MODIFIER
003498  8028 19D0 34E7   2457        MVB   DEVADD,T3C00I+1          * FOLLOWED BY THE DEVICE ADRS
00349E  8118 34E8        2458        MVB   (R1)+,T3C00I+2           * AND SET IN EVEN BYTE DATA
0034A2  8118 34E9        2459        MVB   (R1)+,T3C00I+3           * AND SET IN ODD BYTE DATA
0034A6  D020 34E6        2460        MVD   T3C00I,R0                GET FUNCTION, MODIFIER AND DEV ADRS
                         2461 *
0034AA  680C 34E6        2462        IO    T3C00I                   ISSUE THE I/O COMMAND AND
0034AE  70AE             2463        DC    X'70AE'                  * GET THE I/O CONDITION CODE IN R5
0034B0  356A             2464        SRL   13,R5                    POSITION CC IN THE RESULTS FIELD
0034B2  C528 2EB8        2465        MVB   R5,$ICIN                 * AND SAVE IT IN THE RESULTS
0034B6  3062             2466        SLL   12,R0                    * AND POSITION IT IN THE REG TO
0034B8  100E             2467        JZ    T3C00S                   * SEND BACK THE RESULTS IF READ DPC
0034BA  F002             2468        CBI   X'02',R0                 IS IT A READ STATUS
0034BC  1808             2469        JNE   T3C00N                   * NO, CONTINUE TO CHECK
0034BE  9A08 34E8        2470        MVW   T3C00I+2,R2              * YES, GET ID RECEIVED AND
0034C2  6A0B 2EF0        2471        XW    $DVID,R2                 CHECK AGAINST SHOULD BE VALUE
0034C6  1807             2472        JNZ   T3C00S                   * SEND BACK ACTUAL DATA
0034C8  6A0D 18CA        2473        MVW   R2,TURESUL+2             AND SEND BACK THE RESULTS(ZERO)
0034CC  5007             2474        J     T3C00X
0034CE  F001             2475 T3C00N CBI   X'01',R0                 IS IT A READ DPC COMMAND
0034D0  1002             2476        JE    T3C00S                   * YES, SEND RESULTS TO MDI
0034D2  F00F             2477        CBI   X'0F',R0                 * IF IT IS A READ ID FUNCTION
0034D4  1803             2478        JNE   T3C00X                   * NO, GO TO EXIT
                         2479 *
0034D6  8828 34E8 18CA   2480 T3C00S MVW   T3C00I+2,TURESUL+2       SEND BACK DATA RECEIVED AND EXIT
0034DC  8828 2EB8 18C8   2481 T3C00X MVW   $IOIN,TURESUL           PUT ANY INTR COND CODE FOUND IN
                         2482        TXIT                           * RESULTS AND EXIT
0034E2  6802 334A        2483+       B     $CONX                    RETURN TO MDI CONTROLLER
                         2484+*************************************************************************
                         2485 *
                         2486 *            IDCB FOR DIRECT PROGRAM CONTROL COMMAND
                         2487 *
0034E6  0000             2488 T3C00I DC    X'0000'                   FUNCTION-MODIFIER-DEVICE ADDRESS
0034E8  0000             2489        DC    X'0000'                   IMMEDIATE DATA BUFFER
                         2490        COPY  T3C01
                         2491 T3C01 TUIT   ,1
                         2492+*********************************************************06FEB76**
                         2493+*
                         2494+* TES1 UNIT
                         2495+*
                         2496+*      DELAY COUNTER                                        COMMON
                         2497+*
                         2498+* PURPOSE
                         2499+*
                         2500+*      TO DELAY WHILE THE DEVICE IS DOING A PREVIOUS REQUESTED FUNCTION
                         2501+*
                         2502+* CALLING SEQUENCE
                         2503+*
                         2504+*      ONE PARAMETER IS NEEDED FOR THIS TEST UNIT, THE DELAY TIME.
                         2505+*      NORMAL FUNCTIONS APPLY,IE, TWO BYTES, 0000 AND EQUAL.
                         2506+*      FOR EACH  COUNT THE DELAY TIME IS ABOUT 3 MICROSECONDS.
                         2507+*
                         2508+* RETURN CONTROL
                         2509+*
                         2510+*       B      TURTN*                 RETURN TO MDI SUPERVISOR
                         2511+*
                         2512+*************************************************************************
0034EA  6F0D 2EEE        2513+T3C01  MVW   R7,TURTN                 SAVE RETURN ADDRESS
0034EE  4020 2EB6 3C01   2514+       MVWI  X'3C01',$TUID            SAVE TU ID FOR DISPLAY
0034F4  4424 2EB0        2515+       MVA   CPTN1,R4                 SET UP POINTER ADRS IN R4
                         2516+*
                         2517 *      MDI=$TUXX,'TUDLY,2,0000,EQ,PLNG=2,PARM=XXXX'
                         2518 *
0034F8  4724 32B4        2519        MVA   INTBL,R7                 SET UP INTR ADDRESSES
0034FC  6014             2520        SVC   CICE                     * AND CONNECT THIS DEVICE
0034FE  4020 2EB8 0708   2521        MVWI  X'0708',$IOIN            INITIALIZE THE CONDITION CODES
003504  6818 189A        2522        MVW   TUPARM1*,R0              GET THE DELAY COUNT
003508  B8FF             2523        JCT   *,R0                     * AND COUNT IT DOWN TO ZERO
00350A  8828 2EB8 18C8   2524        MVW   $IOIN,TURESUL            SENT BACK ANY CHANGE IN INTR CONDITION
                         2525        TXIT
003510  6802 334A        2526+       B     $CONX                    RETURN TO MDI CONTROLLER
                         2527+*************************************************************************
                         2528        COPY  T3C03
                         2529 T3C03 TUII
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 LOCTR  OBJECT TEXT      STMT SOURCE STATEMENT                    COPYRIGHT IBM CORP 1976
                         2530+*********************************************************06FEB76**
                         2531+*
                         2532+* TEST UNIT
                         2533+*
                         2534+*      DIRECT PROGRAM CONTROL TEST UNIT                  14APP76
                         2535+*
                         2536+* PURPOSE
                         2537+*
                         2538+*      THREE PARAMETERS ARE NEEDED FOR THE EXECUTION OF THIS TU AND ARE:
                         2539+*      .
                         2540+*      1. ONE BYTE OF FUNCTION-MODIFIER,IE, X'5F' FOR DPC WRITE,
                         2541+*      2. TWO BYTES OF DATA TO BE  USED IN THE SECOND PART OF THE IDCB,
                         2542+*      .  IE, X'0005' TO BE SENT TO THE DEVICE.
                         2543+*      .
                         2544+*      THIS TEST UNIT PREPARES THE DEVICE AND EXPECTS AN INTERRUPT
                         2545+*      AND WILL SEND BACK THE CONDITION CODES OF THE I/O AND INTR.
                         2546+*
                         2547+* CALLING SEQUENCE
                         2548+*
                         2549+*      MDI=@TUXX,T3C03,2,0708,EQ,PLNG=6,PRAM=FMXXXX'
                         2550+*
                         2551+* RETURN CONTROL
                         2552+*
                         2553+*       B      TURTN*                 RETURN TO MDI SUPERVISOR
                         2554+*
                         2555+*************************************************************************
003514  6F0D 2EEE        2556+T3C03  MVW   R7,TURTN                 SAVE RETURN ADDRESS
003518  4020 2EB6 3C03   2557+       MVWI  X'3C03',$TUID            SAVE TU ID FOR DISPLAY
00351E  4424 2EB0        2558+       MVA   CPTN1,R4                 SET UP POINTER ADRS IN R4
003522  6E03 32BC        2559+       BAL   $CONC,R6                 CLEAR DEV DEP STG AND CONNECT I/O BL
003526  32FA             2560+       DC    A($ERR$)                 ERROR ADRS FOR INVALID PREP
                         2561+*
003528  4020 2EB8 0708   2562        MVWI  X'0708',$IOIN            INIT THE CONDITION CODES
00352E  6908 189A        2563        MVW   TUPARM1,R1               SET UP PARM ADRS
003532  8118 3568        2564        MVB   (R1)+,T3C03L             * AND SET IN FUNCTION-MODIFIER
003536  8028 19D0 3569   2565        MVB   DEVADD,T3C03L+1          * FOLLOWED BY THE DEVICE ADRS
00353C  8118 356A        2566        MVB   (R1)+,T3C03L+2           * AND SET IN EVEN BYTE DATA
003540  8118 356B        2567        MVB   (R1)+,T3C03L+3           * AND SET IN ODD BYTE DATA
003544  D020 3568        2568        MVD   T3C03L,R0                GET FUNCTION, MODIFIER AND DEV ADRS
                         2569 *                                     * AND THE SECOND WORD OF THE IDCB
003548  680C 3568        2570        IO    T3C03L                   ISSUE THE I/O COMMAND AND
00354C  70AE             2571        DC    X'70AE'                  * GET THE I/O CONDITION CODE IN R5
00354E  356A             2572        SRL   13,R5                    POSITION CC IN THE RESULTS FIELD
003550  C528 2EB8        2573        MVB   R5,$ICIN                 * AND SAVE IT IN THE RESULTS
003554  0DFF             2574        MVBI  -1,R5                    SET UP FOR DELAY
003556  6002             2575 T3C03K SVC   IDLE                     WAIT FOR INTERRUPT
003558  4CA3             2576        TBTR  (R4,IN)                  HAS IT COME YET
00355A  1201             2577        JN    T3C03M                   * YES, GET OUT OF DELAY
00355C  BDFC             2578        JCT   T3C03K,R5                * NO, CHECK FOR TIME OUT
00355E  9028 2EB8 18C8   2579 T3C03M MVD   $IOIN,TURESUL            PUT ANY INTR COND CODE FOUND IN
                         2580        TXIT                           * RESULTS AND EXIT
003564  6802 334A        2581+       B     $CONX                    RETURN TO MDI CONTROLLER
                         2582+*************************************************************************
                         2583 *
                         2584 *            IDCB FOR DIRECT PROGRAM CONTROL COMMAND
                         2585 *
003568  0000             2586 T3C03L DC    X'0000'                   FUNCTION-MODIFIER-DEVICE ADDRESS
00356A  0000             2587        DC    X'0000'                   IMMEDIATE DATA BUFFER
000000                   2588        END
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CROSS-REFERENCE LISTING

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DECLARED  NAME      ATTRIBUTES AND REFERENCES
       0  .R0.      ABSOLUTE.  HEX VALUE(00000000)
                    1662  1664  1771  1772  2460  2466  2468  2475  2477
                    2522  2523  2568
       0  .R1.      ABSOLUTE.  HEX VALUE(00000001)
                    2367  2370  2373  2376  2455  2456  2458  2459  2563
                    2564  2566  2567
       0  .R2.      ABSOLUTE.  HEX VALUE(00000002)
                    1649  1650  1651  1652  1653  1654  1691  1693  1695
                    1697  1698  1699  1700  1701  1702  1703  1765  1766
                    1767  1768  1769  1770  1784  1788  1794  1797  1799
                    2372  2373  2470  2471  2473
       0  .R3.      ABSOLUTE.  HEX VALUE(00000003)
                    1999  2002  2072  2082  2085  2086  2089  2091  2147
                    2148  2183  2189  2193  2223  2228  2241  2271  2316
                    2318  2319  2331  2365  2366  2370  2382
       0  .R4.      ABSOLUTE.  HEX VALUE(00000004)
                    1642  1677  1761  1775  2075  2076  2079  2093  2094
                    2096  2097  2100  2106  2112  2184  2185  2187  2191
                    2195  2224  2225  2226  2236  2237  2238  2240  2243
                    2253  2255  2257  2260  2262  2450  2515  2558  2576
       0  .R5.      ABSOLUTE.  HEX VALUE(00000005)
                    2000  2002  2083  2085  2087  2089  2105  2110  2232
                    2233  2234  2265  2266  2268  2317  2318  2364  2377
                    2464  2465  2572  2573  2574  2578
       0  .R6.      ABSOLUTE.  HEX VALUE(00000006)
                    1643  1673  1675  1762  1773  2017  2081  2101  2113
                    2149  2254  2259  2261  2267  2270  2272  2326  2332
                    2334  2369  2374  2375  2559
       0  .R7.      ABSOLUTE.  HEX VALUE(00000007)
                    1489  1640  1655  1665  1759  2001  2084  2088  2095
                    2188  2229  2315  2320  2322  2323  2324  2329  2362
                    2368  2371  2383  2387  2389  2448  2452  2513  2519
                    2556
    2315  $CONC     ADDRESS.  HEX LOCATION(000032BC) IN CSECT(I4800   ) LENGTH(2)
                    1643  1673  1762  2559
    2385  $CONX     ADDRESS.  HEX LOCATION(0000334A) IN CSECT(I4800   ) LENGTH(1)
                    1686  1801  2483  2526  2581
    2014  $DIAG     ADDRESS.  HEX LOCATION(0000319A) IN CSECT(I4800   ) LENGTH(6)
                    1773
    1480  $DVIL     ADDRESS.  HEX LOCATION(00002EF0) IN CSECT(I4800   ) LENGTH(2)
                    1667  2471
    2361  $ERR$     ADDRESS.  HEX LOCATION(000032FA) IN CSECT(I4800   ) LENGTH(6)
                    1763  1776  2560
    1478  $INTL     ADDRESS.  HEX LOCATION(00002EEC) IN CSECT(I4800   ) LENGTH(2)
                    1671  1672  1679  2234  2328
    1448  $IOIN     ADDRESS.  HEX LOCATION(00002EB8) IN CSECT(I4800   ) LENGTH(2)
                    1682  2090  2148  2228  2265  2330  2454  2465  2481
                    2521  2524  2562  2573  2579
    1449  $ISB      ADDRESS.  HEX LOCATION(00002EBA) IN CSECT(I4800   ) LENGTH(2)
                    1683  2091  2229  2268  2331
    1433  $LE       ABSOLUTE.  HEX VALUE(00000026)
                    2096  2236
    1988  $SEEK     ADDRESS.  HEX LOCATION(0000314A) IN CSECT(I4800   ) LENGTH(6)
                    1675
    1447  $TUID     ADDRESS.  HEX LOCATION(00002EE6) IN CSECT(I4800   ) LENGTH(2)
                    1488  1641  1760  2382  2419  2449  2514  2557
      42  @CALL     ABSOLUTE.  HEX VALUE(00000201)
                    1161  1194  1227  1245  1263
     102  @DCADD1   ADDRESS.  HEX LOCATION(000019B8) IN CSECT(I4800   ) LENGTH(1)
                    2379
     103  @DCADD2   ADDRESS.  HEX LOCATION(000019BA) IN CSECT(I4800   ) LENGTH(1)
                    2380
      39  @FIXT     ABSOLUTE.  HEX VALUE(00000101)
                     603   630   645   648   663   714   729   744   753
                     756   771   786   801   816   831   846   861   876
                     891   906   921   936   951   966   981   996  1011
                    1026  1041  1056  1071  1086  1101  1116  1131  1146
                    1179  1212
      41  @GOTO     ABSOLUTE.  HEX VALUE(00000200)
                     747  1269
      45  @TUXX     ABSOLUTE.  HEX VALUE(00000500)
                     591   606   618   633   651   666   678   690   702
                     717   732   759   774   789   804   819   834   849
                     864   879   894   909   924   939   954   969   984
                     999  1014  1029  1044  1059  1074  1089  1104  1119
                    1134  1149  1167  1182  1200  1215  1233  1251
    2393  BEGIN     ADDRESS.  HEX LOCATION(00003360) IN CSECT(I4800   ) LENGTH(2)
                    2410
    2414  BIT0080   ABSOLUTE.  HEX VALUE(00000080)
                    2381
    2409  BUFPT     ADDRESS.  HEX LOCATION(00003468) IN CSECT(I4800   ) LENGTH(2)
                    2366
    1437  CE        ABSOLUTE.  HEX VALUE(0000002A)
                    2075  2187  2257
    1517  CICB      ABSOLUTE.  HEX VALUE(00000014)
                    2325  2453  2520
    1825  CLDCB     ADDRESS.  HEX LOCATION(0000306E) IN CSECT(I4800   ) LENGTH(2)
                    1991
    1435  CS        ABSOLUTE.  HEX VALUE(00000028)
                    2076  2079  2185  2226  2255
    1436  CSA       ABSOLUTE.  HEX VALUE(00000029)
                    2260
    1466  CSBUF     ADDRESS.  HEX LOCATION(00002ED6) IN CSECT(I4800   ) LENGTH(1)
                    1871  2087
    1864  CSDCB     ADDRESS.  HEX LOCATION(000030AE) IN CSECT(I4800   ) LENGTH(2)
                    2077
    1468  CSIL2     ADDRESS.  HEX LOCATION(00002ED8) IN CSECT(I4800   ) LENGTH(2)
                    1681  1689
    1474  CSTL8     ADDRESS.  HEX LOCATION(00002EE4) IN CSECT(I4800   ) LENGTH(2)
                    2188  2189
    1456  DCBUF     ADDRESS.  HEX LOCATION(00002EC6) IN CSECT(I4800   ) LENGTH(1)
                    2082
    2410  DC2PT     ADDRESS.  HEX LOCATION(0000346A) IN CSECT(I4800   ) LENGTH(2)
                    2380
     105  DEVADD    ADDRESS.  HEX LOCATION(000019D0) IN CSECT(I4800   ) LENGTH(1)
                    1481  2276  2285  2389  2457  2565
    1451  DEV1      ADDRESS.  HEX LOCATION(00002EBE) IN CSECT(I4800   ) LENGTH(2)
                    1455  2317
    1813  DGDCB     ADDRESS.  HEX LOCATION(0000305E) IN CSECT(I4800   ) LENGTH(2)
                    2014
    1934  DIAGW     ADDRESS.  HEX LOCATION(00003120) IN CSECT(I4800   ) LENGTH(2)
                    1777  1778  1779  1780  1781  1781  1782  1785  1785
                    1786  1789  1791  1795  1820
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CROSS-REFERENCE LISTING

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DECLARED  NAME      ATTRIBUTES AND REFERENCES
      67  DUMMY     ABSOLUTE.  HEX VALUE(00000000)
                     582  1274  1292
    1275  ENTPT     ADDRESS.  HEX LOCATION(00002AE4) IN CSECT(I4800   ) LENGTH(1)
                     198
      47  EQ        ABSOLUTE.  HEX VALUE(00000000)
                     594   609   621   636   654   669   681   693   705
                     720   735   762   777   792   807   822   837   852
                     867   882   897   912   927   942   957   972   987
                    1002  1017  1032  1047  1062  1077  1092  1107  1122
    1428  ER        ABSOLUTE.  HEX VALUE(00000021)
                    1677  1775  2093  2112  2195  2237  2262
    1503  EXIT      ABSOLUTE.  HEX VALUE(00000006)
                    2244
    2412  FAKETU    ADDRESS.  HEX LOCATION(0000346E) IN CSECT(I4800   ) LENGTH(2)
                    2379
    1830  FRDCB     ADDRESS.  HEX LOCATION(0000307E) IN CSECT(I4800   ) LENGTH(2)
                    2012
    1300  F00008    ADDRESS.  HEX LOCATION(00002AF2) IN CSECT(I4800   ) LENGTH(1)
                     604
    1332  F00010    ADDRESS.  HEX LOCATION(00002CBC) IN CSECT(I4800   ) LENGTH(1)
                     754
    1336  F00012    ADDRESS.  HEX LOCATION(00002CEC) IN CSECT(I4800   ) LENGTH(1)
                     757
    1304  F00014    ADDRESS.  HEX LOCATION(00002B1E) IN CSECT(I4800   ) LENGTH(1)
                     631   646   664   715   730   745   772   787   802
                     817   832   847   862   877   892   907   922   937
                     952   967   982   997  1012  1027  1042  1057  1072
                    1087  1102  1117  1132
    1316  F00064    ADDRESS.  HEX LOCATION(00002BEE) IN CSECT(I4800   ) LENGTH(1)
                     649
    1328  F00103    ADDRESS.  HEX LOCATION(00002C96) IN CSECT(I4800   ) LENGTH(1)
                     748
    1342  F00287    ADDRESS.  HEX LOCATION(00002D24) IN CSECT(I4800   ) LENGTH(1)
                    1147
    1348  F00293    ADDRESS.  HEX LOCATION(00002D60) IN CSECT(I4800   ) LENGTH(1)
                    1162
    1354  F00301    ADDRESS.  HEX LOCATION(00002D88) IN CSECT(I4800   ) LENGTH(1)
                    1180
    1358  F00308    ADDRESS.  HEX LOCATION(00002DB6) IN CSECT(I4800   ) LENGTH(1)
                    1195
    1364  F00315    ADDRESS.  HEX LOCATION(00002DD2) IN CSECT(I4800   ) LENGTH(1)
                    1213
    1368  F00322    ADDRESS.  HEX LOCATION(00002E00) IN CSECT(I4800   ) LENGTH(1)
                    1228
    1374  F00332    ADDRESS.  HEX LOCATION(00002E24) IN CSECT(I4800   ) LENGTH(1)
                    1246
    1380  F00340    ADDRESS.  HEX LOCATION(00002E54) IN CSECT(I4800   ) LENGTH(1)
                    1264
    1386  F00344    ADDRESS.  HEX LOCATION(00002E84) IN CSECT(I4800   ) LENGTH(1)
                    1270
    2418  HEBLK     ADDRESS.  HEX LOCATION(00003470) IN CSECT(I4800   ) LENGTH(2)
                    2362
    1523  HTOE      ABSOLUTE.  HEX VALUE(0000001A)
                    2363
    1499  IDLE      ABSOLUTE.  HEX VALUE(00000002)
                    1663  2108  2575
    1430  IN        ABSOLUTE.  HEX VALUE(00000023)
                    2094  2106  2225  2576
    2285  INTBL     ADDRESS.  HEX LOCATION(000032B4) IN CSECT(I4800   ) LENGTH(2)
                    2324  2452  2519
    2182  INTER     ADDRESS.  HEX LOCATION(0000321C) IN CSECT(I4800   ) LENGTH(2)
                    2287
    2191  INTES     ADDRESS.  HEX LOCATION(00003234) IN CSECT(I4800   ) LENGTH(2)
                    2186
    2195  INTET     ADDRESS.  HEX LOCATION(0000323C) IN CSECT(I4800   ) LENGTH(2)
                    2192
    2222  INTOK     ADDRESS.  HEX LOCATION(00003240) IN CSECT(I4800   ) LENGTH(2)
                    2286
      63  INTRNL    ABSOLUTE.  HEX VALUE(00000000)
                     751
    2244  INTRX     ADDRESS.  HEX LOCATION(00003270) IN CSECT(I4800   ) LENGTH(2)
                    2239  2242
    2225  INTR1     ADDRESS.  HEX LOCATION(00003248) IN CSECT(I4800   ) LENGTH(2)
                    2190  2194  2196
    2230  INTR2     ADDRESS.  HEX LOCATION(00003256) IN CSECT(I4800   ) LENGTH(1)
                    2227
    2238  INTR3     ADDRESS.  HEX LOCATION(00003264) IN CSECT(I4800   ) LENGTH(2)
                    2235
    2276  IOBLK     ADDRESS.  HEX LOCATION(000032A8) IN CSECT(I4800   ) LENGTH(2)
                    1655  1665  2095  2329
    2278  IODCB     ADDRESS.  HEX LOCATION(000032AC) IN CSECT(I4800   ) LENGTH(2)
                    1988  1991  1994  2003  2006  2009  2012  2014  2077
                    2083  2328
    2279  IOMOD     ADDRESS.  HEX LOCATION(000032AE) IN CSECT(I4800   ) LENGTH(2)
                    1667  2015  2072  2078
    1672  ITST1     ADDRESS.  HEX LOCATION(00002F58) IN CSECT(I4800   ) LENGTH(6)
                    1680
      37  I4800     CSECT.  START(00002500) LENGTH(4204) ESDID(0)
                      37
    2399  LINE1     ADDRESS.  HEX LOCATION(00003398) IN CSECT(I4800   ) LENGTH(40)
                    2367
    1450  LSTIO     ADDRESS.  HEX LOCATION(00002EBC) IN CSECT(I4800   ) LENGTH(2)
                    2081  2332
    1427  MI        ABSOLUTE.  HEX VALUE(00000020)
                    2240
    2370  MVBUF     ADDRESS.  HEX LOCATION(00003318) IN CSECT(I4800   ) LENGTH(2)
                    2374  2377
    1439  NG        ABSOLUTE.  HEX VALUE(0000002C)
                    2243
    1434  NI        ABSOLUTE.  HEX VALUE(00000027)
                    2100
     591  N00001    ADDRESS.  HEX LOCATION(00002668) IN CSECT(I4800   ) LENGTH(2)
                     315  1285
     603  N00002    ADDRESS.  HEX LOCATION(0000267E) IN CSECT(I4800   ) LENGTH(2)
                     318
     606  N00003    ADDRESS.  HEX LOCATION(00002682) IN CSECT(I4800   ) LENGTH(2)
                     321   592
     618  N00004    ADDRESS.  HEX LOCATION(00002698) IN CSECT(I4800   ) LENGTH(2)
                     324
     630  N00005    ADDRESS.  HEX LOCATION(000026AA) IN CSECT(I4800   ) LENGTH(2)
                     327
     633  N00006    ADDRESS.  HEX LOCATION(000026AE) IN CSECT(I4800   ) LENGTH(2)
                     330   619
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DECLARED  NAME      ATTRIBUTES AND REFERENCES
     645  N00007      ADDRESS. HEX LOCATION(000026C6) IN CSECT(I4800   ) LENGTH(2)
                      333
     648  N00008      ADDRESS. HEX LOCATION(000026CA) IN CSECT(I4800   ) LENGTH(2)
                      336   634
     651  N00009      ADDRESS. HEX LOCATION(000026CE) IN CSECT(I4800   ) LENGTH(2)
                      339   607
     663  N00010      ADDRESS. HEX LOCATION(000026E2) IN CSECT(I4800   ) LENGTH(2)
                      342
     666  N00011      ADDRESS. HEX LOCATION(000026E6) IN CSECT(I4800   ) LENGTH(2)
                      345   652
     678  N00012      ADDRESS. HEX LOCATION(000026FC) IN CSECT(I4800   ) LENGTH(2)
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     690  N00013      ADDRESS. HEX LOCATION(0000270E) IN CSECT(I4800   ) LENGTH(2)
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     702  N00014      ADDRESS. HEX LOCATION(00002720) IN CSECT(I4800   ) LENGTH(2)
                      354
     714  N00015      ADDRESS. HEX LOCATION(00002732) IN CSECT(I4800   ) LENGTH(2)
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     717  N00016      ADDRESS. HEX LOCATION(00002736) IN CSECT(I4800   ) LENGTH(2)
                      360   703
     729  N00017      ADDRESS. HEX LOCATION(0000274A) IN CSECT(I4800   ) LENGTH(2)
                      363
     732  N00018      ADDRESS. HEX LOCATION(0000274E) IN CSECT(I4800   ) LENGTH(2)
                      366   718
     744  N00019      ADDRESS. HEX LOCATION(00002766) IN CSECT(I4800   ) LENGTH(2)
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     747  N00020      ADDRESS. HEX LOCATION(0000276A) IN CSECT(I4800   ) LENGTH(2)
                      372   733
     753  N00021      ADDRESS. HEX LOCATION(00002776) IN CSECT(I4800   ) LENGTH(2)
                      375   691
     756  N00022      ADDRESS. HEX LOCATION(0000277A) IN CSECT(I4800   ) LENGTH(2)
                      378   679
     759  N00023      ADDRESS. HEX LOCATION(0000277E) IN CSECT(I4800   ) LENGTH(2)
                      381   667  1291
     771  N00024      ADDRESS. HEX LOCATION(00002792) IN CSECT(I4800   ) LENGTH(2)
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     774  N00025      ADDRESS. HEX LOCATION(00002796) IN CSECT(I4800   ) LENGTH(2)
                      387   760
     786  N00026      ADDRESS. HEX LOCATION(000027AC) IN CSECT(I4800   ) LENGTH(2)
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     789  N00027      ADDRESS. HEX LOCATION(000027B0) IN CSECT(I4800   ) LENGTH(2)
                      393   775
     801  N00028      ADDRESS. HEX LOCATION(000027C6) IN CSECT(I4800   ) LENGTH(2)
                      396
     804  N00029      ADDRESS. HEX LOCATION(000027CA) IN CSECT(I4800   ) LENGTH(2)
                      399   790
     816  N00030      ADDRESS. HEX LOCATION(000027E0) IN CSECT(I4800   ) LENGTH(2)
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     819  N00031      ADDRESS. HEX LOCATION(000027E4) IN CSECT(I4800   ) LENGTH(2)
                      405   805
     831  N00032      ADDRESS. HEX LOCATION(000027FA) IN CSECT(I4800   ) LENGTH(2)
                      408
     834  N00033      ADDRESS. HEX LOCATION(000027FE) IN CSECT(I4800   ) LENGTH(2)
                      411   820
     846  N00034      ADDRESS. HEX LOCATION(00002814) IN CSECT(I4800   ) LENGTH(2)
                      414
     849  N00035      ADDRESS. HEX LOCATION(00002818) IN CSECT(I4800   ) LENGTH(2)
                      417   835
     861  N00036      ADDRESS. HEX LOCATION(0000282E) IN CSECT(I4800   ) LENGTH(2)
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     864  N00037      ADDRESS. HEX LOCATION(00002832) IN CSECT(I4800   ) LENGTH(2)
                      423   850
     876  N00038      ADDRESS. HEX LOCATION(00002848) IN CSECT(I4800   ) LENGTH(2)
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     879  N00039      ADDRESS. HEX LOCATION(0000284C) IN CSECT(I4800   ) LENGTH(2)
                      429   865
     891  N00040      ADDRESS. HEX LOCATION(00002862) IN CSECT(I4800   ) LENGTH(2)
                      432
     894  N00041      ADDRESS. HEX LOCATION(00002866) IN CSECT(I4800   ) LENGTH(2)
                      435   880
     906  N00042      ADDRESS. HEX LOCATION(0000287C) IN CSECT(I4800   ) LENGTH(2)
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     909  N00043      ADDRESS. HEX LOCATION(00002880) IN CSECT(I4800   ) LENGTH(2)
                      441   895
     921  N00044      ADDRESS. HEX LOCATION(00002894) IN CSECT(I4800   ) LENGTH(2)
                      444
     924  N00045      ADDRESS. HEX LOCATION(00002898) IN CSECT(I4800   ) LENGTH(2)
                      447   910
     936  N00046      ADDRESS. HEX LOCATION(000028AA) IN CSECT(I4800   ) LENGTH(2)
                      450
     939  N00047      ADDRESS. HEX LOCATION(000028AE) IN CSECT(I4800   ) LENGTH(2)
                      453   925
     951  N00048      ADDRESS. HEX LOCATION(000028C4) IN CSECT(I4800   ) LENGTH(2)
                      456
     954  N00049      ADDRESS. HEX LOCATION(000028C8) IN CSECT(I4800   ) LENGTH(2)
                      459   940  1288
     966  N00050      ADDRESS. HEX LOCATION(000028DE) IN CSECT(I4800   ) LENGTH(2)
                      462
     969  N00051      ADDRESS. HEX LOCATION(000028E2) IN CSECT(I4800   ) LENGTH(2)
                      465   955
     981  N00052      ADDRESS. HEX LOCATION(000028F4) IN CSECT(I4800   ) LENGTH(2)
                      468
     984  N00053      ADDRESS. HEX LOCATION(000028F8) IN CSECT(I4800   ) LENGTH(2)
                      471   970
     996  N00054      ADDRESS. HEX LOCATION(0000290E) IN CSECT(I4800   ) LENGTH(2)
                      474
     999  N00055      ADDRESS. HEX LOCATION(00002912) IN CSECT(I4800   ) LENGTH(2)
                      477   985
    1011  N00056      ADDRESS. HEX LOCATION(00002926) IN CSECT(I4800   ) LENGTH(2)
                      480
    1014  N00057      ADDRESS. HEX LOCATION(0000292A) IN CSECT(I4800   ) LENGTH(2)
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    1026  N00058      ADDRESS. HEX LOCATION(00002940) IN CSECT(I4800   ) LENGTH(2)
                      486
    1029  N00059      ADDRESS. HEX LOCATION(00002944) IN CSECT(I4800   ) LENGTH(2)
                      489  1015
    1041  N00060      ADDRESS. HEX LOCATION(00002956) IN CSECT(I4800   ) LENGTH(2)
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    1044  N00061      ADDRESS. HEX LOCATION(0000295A) IN CSECT(I4800   ) LENGTH(2)
                      495  1030
    1056  N00062      ADDRESS. HEX LOCATION(00002970) IN CSECT(I4800   ) LENGTH(2)
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    1059  N00063      ADDRESS. HEX LOCATION(00002974) IN CSECT(I4800   ) LENGTH(2)
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DECLARED  NAME      ATTRIBUTES AND REFERENCES
                      501  1045
    1071  N00064      ADDRESS. HEX LOCATION(00002988) IN CSECT(I4800   ) LENGTH(2)
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    1074  N00065      ADDRESS. HEX LOCATION(0000298C) IN CSECT(I4800   ) LENGTH(2)
                      507  1060
    1086  N00066      ADDRESS. HEX LOCATION(000029A2) IN CSECT(I4800   ) LENGTH(2)
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    1089  N00067      ADDRESS. HEX LOCATION(000029A6) IN CSECT(I4800   ) LENGTH(2)
                      513  1075
    1101  N00068      ADDRESS. HEX LOCATION(000029B8) IN CSECT(I4800   ) LENGTH(2)
                      516
    1104  N00069      ADDRESS. HEX LOCATION(000029BC) IN CSECT(I4800   ) LENGTH(2)
                      519  1090
    1116  N00070      ADDRESS. HEX LOCATION(000029D2) IN CSECT(I4800   ) LENGTH(2)
                      522
    1119  N00071      ADDRESS. HEX LOCATION(000029D6) IN CSECT(I4800   ) LENGTH(2)
                      525  1105
    1131  N00072      ADDRESS. HEX LOCATION(000029EA) IN CSECT(I4800   ) LENGTH(2)
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    1134  N00073      ADDRESS. HEX LOCATION(000029EE) IN CSECT(I4800   ) LENGTH(2)
                      531  1120
    1146  N00074      ADDRESS. HEX LOCATION(00002A00) IN CSECT(I4800   ) LENGTH(2)
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    1149  N00075      ADDRESS. HEX LOCATION(00002A04) IN CSECT(I4800   ) LENGTH(2)
                      537  1135
    1161  N00076      ADDRESS. HEX LOCATION(00002A16) IN CSECT(I4800   ) LENGTH(2)
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    1167  N00077      ADDRESS. HEX LOCATION(00002A22) IN CSECT(I4800   ) LENGTH(2)
                      543  1150
    1179  N00078      ADDRESS. HEX LOCATION(00002A34) IN CSECT(I4800   ) LENGTH(2)
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    1182  N00079      ADDRESS. HEX LOCATION(00002A38) IN CSECT(I4800   ) LENGTH(2)
                      549  1168
    1194  N00080      ADDRESS. HEX LOCATION(00002A4A) IN CSECT(I4800   ) LENGTH(2)
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    1200  N00081      ADDRESS. HEX LOCATION(00002A56) IN CSECT(I4800   ) LENGTH(2)
                      555  1183
    1212  N00082      ADDRESS. HEX LOCATION(00002A68) IN CSECT(I4800   ) LENGTH(2)
                      558
    1215  N00083      ADDRESS. HEX LOCATION(00002A6C) IN CSECT(I4800   ) LENGTH(2)
                      561  1201
    1227  N00084      ADDRESS. HEX LOCATION(00002A7E) IN CSECT(I4800   ) LENGTH(2)
                      564
    1233  N00085      ADDRESS. HEX LOCATION(00002A8A) IN CSECT(I4800   ) LENGTH(2)
                      567  1216
    1245  N00086      ADDRESS. HEX LOCATION(00002AA4) IN CSECT(I4800   ) LENGTH(2)
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    1251  N00087      ADDRESS. HEX LOCATION(00002AB0) IN CSECT(I4800   ) LENGTH(2)
                      573  1234
    1263  N00088      ADDRESS. HEX LOCATION(00002ACA) IN CSECT(I4800   ) LENGTH(2)
                      576
    1269  N00089      ADDRESS. HEX LOCATION(00002AD6) IN CSECT(I4800   ) LENGTH(2)
                      579  1252
      58  OF          ABSOLUTE. HEX VALUE(00000202)
    1137  1152  1170  1185  1203  1218  1254
      57  ON          ABSOLUTE. HEX VALUE(00000200)
    1236
    1392  OPTN1       ADDRESS. HEX LOCATION(00002EF0) IN CSECT(I4800   ) LENGTH(2)
    1642  1761  2184  2224  2450  2515  2558
    1415  OPTN3       ADDRESS. HEX LOCATION(00002EB4) IN CSECT(I4800   ) LENGTH(2)
    1684  2271  2319
     101  PARMARA     ADDRESS. HEX LOCATION(0000196E) IN CSECT(I4800   ) LENGTH(1)
                       601   616   628   643   661   676   688   700   712
                       727   742   769   784   799   814   829   844   859
                       874   889   904   919   934   949   964   979   994
                      1009  1024  1039  1054  1069  1084  1099  1114  1129
                      1144  1159  1177  1192  1210  1225  1243  1261
      69  PID         ADDRESS. HEX LOCATION(00001800) IN CSECT(I4800   ) LENGTH(1)
                        71    72    73    74    75    76    77    78    79
                        80    81    82    83    84    85    86    87    88
                        89    90    91    92    93    94    95    96    97
                        98    99   100   101   102   103   104   105   106
                       107   108   109   110   111   112  2378
    2413  PIDMSG10    ABSOLUTE. HEX VALUE(0000F1F0)
    2378
    1509  PREP        ABSOLUTE. HEX VALUE(0000000C)
    2333
    1897  RDDCB       ADDRESS. HEX LOCATION(000030DE) IN CSECT(I4800   ) LENGTH(2)
    2000  2003
    1520  RELSD       ABSOLUTE. HEX VALUE(00000017)
    2388
    1519  REQSD       ABSOLUTE. HEX VALUE(00000016)
    2321
    1505  RESET       ABSOLUTE. HEX VALUE(00000008)
    1656
    1516  RICB        ABSOLUTE. HEX VALUE(00000013)
    2390
    1506  RID         ABSOLUTE. HEX VALUE(00000009)
    1666
    1841  RSDCB       ADDRESS. HEX LOCATION(0000308E) IN CSECT(I4800   ) LENGTH(2)
    1994
    1455  SCTID       ADDRESS. HEX LOCATION(00002EBE) IN CSECT(I4800   ) LENGTH(2)
    1848  1995  1996  2386
    1852  SKDCB       ADDRESS. HEX LOCATION(0000309E) IN CSECT(I4800   ) LENGTH(2)
    1669  1670  1988
    1507  START       ABSOLUTE. HEX VALUE(0000000A)
    2098
     104  SUPSTAT     ADDRESS. HEX LOCATION(000019C4) IN CSECT(I4800   ) LENGTH(1)
    2381
    1481  SVCAL       ADDRESS. HEX LOCATION(00002EF2) IN CSECT(I4800   ) LENGTH(2)
    2320  2386  2387
    1663  TEMP        ADDRESS. HEX LOCATION(00002F34) IN CSECT(I4800   ) LENGTH(2)
    1664
      92  TUMSGWTR    ADDRESS. HEX LOCATION(000018BA) IN CSECT(I4800   ) LENGTH(1)
    2383
      76  TUPARM1     ADDRESS. HEX LOCATION(0000189A) IN CSECT(I4800   ) LENGTH(1)
    2455  2522  2563
      98  TURESUL     ADDRESS. HEX LOCATION(000018C8) IN CSECT(I4800   ) LENGTH(1)
    1649  1650  1651  1652  1653  1654  1681  1682  1683
    1684  1697  1698  1699  1700  1701  1702  1765  1766
    1767  1768  1769  1770  1777  1778  1779  1780  2473
    2480  2481  2524  2579
    1479  TURTN        ADDRESS. HEX LOCATION(00002EEE) IN CSECT(I4800   ) LENGTH(2)
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CROSS-REFERENCE LISTING

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DECLARED  NAME      ATTRIBUTES AND REFERENCES
                    1640  1759  2391  2448  2513  2556
    74    TUSTATUS   ADDRESS. HEX LOCATION(00001818) IN CSECT(I4800   ) LENGTH(1)
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    75    TUWORK     ADDRESS. HEX LOCATION(0000181A) IN CSECT(I4800   ) LENGTH(1)
                    2365  2420
  1693    T01A       ADDRESS. HEX LOCATION(00002F9E) IN CSECT(I4800   ) LENGTH(2)
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  1695    T01B       ADDRESS. HEX LOCATION(00002FA2) IN CSECT(I4800   ) LENGTH(2)
                    1690
  1681    T01C       ADDRESS. HEX LOCATION(00002F76) IN CSECT(I4800   ) LENGTH(6)
                    1692  1694  1696  1704
  1703    T01ER      ADDRESS. HEX LOCATION(00002FBE) IN CSECT(I4800   ) LENGTH(2)
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  1697    T01R       ADDRESS. HEX LOCATION(00002FA6) IN CSECT(I4800   ) LENGTH(4)
                    1644  1674
  1689    T01Z       ADDRESS. HEX LOCATION(00002F92) IN CSECT(I4800   ) LENGTH(6)
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  2448    T3C00      ADDRESS. HEX LOCATION(00003476) IN CSECT(I4800   ) LENGTH(4)
                     593   608   635   668   734   776   791   806   821
                     836   851   866   881   896   941   956  1016  1076
  2488    T3C00I     ADDRESS. HEX LOCATION(000034E6) IN CSECT(I4800   ) LENGTH(2)
                    2456  2457  2458  2459  2460  2462  2470  2480
  2475    T3C00N     ADDRESS. HEX LOCATION(000034CE) IN CSECT(I4800   ) LENGTH(2)
                    2469
  2480    T3C00S     ADDRESS. HEX LOCATION(000034D6) IN CSECT(I4800   ) LENGTH(6)
                    2467  2472  2476
  2481    T3C00X     ADDRESS. HEX LOCATION(000034DC) IN CSECT(I4800   ) LENGTH(6)
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  2513    T3C01      ADDRESS. HEX LOCATION(000034EA) IN CSECT(I4800   ) LENGTH(4)
                     653   719   911
  1488    T3C02      ADDRESS. HEX LOCATION(00002EF6) IN CSECT(I4800   ) LENGTH(6)
                     620   680   692   704   761   826   971  1001  1031
                    1061  1091  1121  1151  1184  1202  1217  1235  1253
  2556    T3C03      ADDRESS. HEX LOCATION(00003514) IN CSECT(I4800   ) LENGTH(4)
                     986  1046  1106
  2575    T3C03K     ADDRESS. HEX LOCATION(00003556) IN CSECT(I4800   ) LENGTH(2)
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  2586    T3C03L     ADDRESS. HEX LOCATION(00003568) IN CSECT(I4800   ) LENGTH(2)
                    2564  2565  2566  2567  2568  2570
  2579    T3C03M     ADDRESS. HEX LOCATION(0000355E) IN CSECT(I4800   ) LENGTH(6)
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  1640    T4801      ADDRESS. HEX LOCATION(00002EFE) IN CSECT(I4800   ) LENGTH(4)
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  1759    T4853      ADDRESS. HEX LOCATION(00002FC2) IN CSECT(I4800   ) LENGTH(4)
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  1785    T53A       ADDRESS. HEX LOCATION(00003028) IN CSECT(I4800   ) LENGTH(6)
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  1789    T53B       ADDRESS. HEX LOCATION(00003038) IN CSECT(I4800   ) LENGTH(6)
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  1794    T53C       ADDRESS. HEX LOCATION(0000304A) IN CSECT(I4800   ) LENGTH(2)
                    1790  1792
  1795    T53D       ADDRESS. HEX LOCATION(0000304C) IN CSECT(I4800   ) LENGTH(6)
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  1801    T53X       ADDRESS. HEX LOCATION(0000305A) IN CSECT(I4800   ) LENGTH(4)
                    1796  1798
  1799    T53Z       ADDRESS. HEX LOCATION(00003058) IN CSECT(I4800   ) LENGTH(2)
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  1886    VRDCB      ADDRESS. HEX LOCATION(000030CE) IN CSECT(I4800   ) LENGTH(2)
                    2006
  1875    WRDCB      ADDRESS. HEX LOCATION(000030BE) IN CSECT(I4800   ) LENGTH(2)
                    2009
  1431    XE         ABSOLUTE. HEX VALUE(00000024)
                    2191  2253
  1429    XI         ABSOLUTE. HEX VALUE(00000022)
                    2097  2238
  2072    XIO        ADDRESS. HEX LOCATION(000031AA) IN CSECT(I4800   ) LENGTH(4)
                    1989  1992  1997  2004  2007  2010  2013
  2253    XIOCK      ADDRESS. HEX LOCATION(00003272) IN CSECT(I4800   ) LENGTH(2)
                    2107
  2260    XIOCO      ADDRESS. HEX LOCATION(00003284) IN CSECT(I4800   ) LENGTH(2)
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  2077    XIOCS      ADDRESS. HEX LOCATION(000031B4) IN CSECT(I4800   ) LENGTH(6)
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  2262    XIOCV      ADDRESS. HEX LOCATION(00003288) IN CSECT(I4800   ) LENGTH(2)
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  2271    XIOCX      ADDRESS. HEX LOCATION(000032A2) IN CSECT(I4800   ) LENGTH(4)
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  2146    XIOER      ADDRESS. HEX LOCATION(00003210) IN CSECT(I4800   ) LENGTH(2)
                    2277
  2081    XIO1       ADDRESS. HEX LOCATION(000031C4) IN CSECT(I4800   ) LENGTH(4)
                    2016  2073
  2094    XIO2       ADDRESS. HEX LOCATION(000031EA) IN CSECT(I4800   ) LENGTH(2)
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  2106    XIO8       ADDRESS. HEX LOCATION(000031FE) IN CSECT(I4800   ) LENGTH(2)
                    2111
    62    XTRNL      ABSOLUTE. HEX VALUE(00000001)
                    1165  1198  1231  1249  1267  1273
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