```
 LOCTR  OBJECT TEXT        STMT SOURCE STATEMENT                                  COPYRIGHT IBM CORP 1976
                             3       COPY  LOG7808                  ** MAP EC HISTORY **
                             4  ************************************************************************
                             5  *                                                                      *
                             6  *                    ***       PREREQUISITES        ***               *
                             7  *                                                                      *
                             8  *                                  NONE                                *
                             9  *                                                                      *
                            10  ************************************************************************
                            11  *                                                                      *
                            12  *                    ***       MODIFICATIONS        ***               *
                            13  *                                                                      *
                            14  *                 CHANGES MADE TO MEET PROGRAM REQUIREMENTS           *
                            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 01MAR78  DATE          DATE              *
                            33  *                       E.C. 755285   E.C.          E.C.              *
                            34  *                                                                      *
                            35  ************************************************************************
002500                      37  I7808    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  ON       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
000232                      70  PTYPE    EQU   *-X'22CE'         ADDRESS OF PROCESSOR TYPE FIELD
00180C                      71  STEPNUM  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'       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
0019B8                     102  @DCADD1  EQU   PID+X'01B8'       MDI POINTER
0019BA                     103  @DCADD2  EQU   PID+X'01BA'       MDI POINTER
0019C4                     104  SUPSTAT  EQU   PID+X'01C4'       ADDRESS OF MDI STATUS
0019D0                     105  DEVADD   EQU   PID+X'01D0'       ADDRESS OF DEVICE ADDRESS TABLE 0
0019DA                     106  DEVADD1  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  DEVADD6  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  29AE               198       DC    A(ENTPT)            POINT TO MAP ENTRY POINT TABLE
                           199  ************************************************************************
                           200  ************************************************************************
                           201  **                                                                    **
                           202  **   THE FOLLOWING TABLES ARE USED BY THE MDI SUPERVISOR (D3C00)      **
                           203  **   TO LOCATE THE CORRECT RULE TO INVOKE, 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  **                  E) 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 BYTES                   **
                           274  **                  H) PARAMETER TO PASS TO THE TU                    **
                           275  **                  I) STOPE 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  ************************************************************************
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LOCTR  OBJECT TEXT        STMT SOURCE STATEMENT
                           308 ********************************************************************************
                           309 ********************************************************************************
                           310 **                                                                            **
                           311 **                      STEP AND RULE ADDRESS TABLE                           **
                           312 **                                                                            **
                           313 ********************************************************************************
                           314 ********************************************************************************
002502  2630               315          DC    AL2(N00001)
002504  0001               316          DC    XL2'0001'
000001                     317 EQN00001 EQU       0001
002506  2634               318          DC    AL2(N00002)
002508  0002               319          DC    XL2'0002'
000002                     320 EQN00002 EQU       0002
00250A  2640               321          DC    AL2(N00003)
00250C  0003               322          DC    XL2'0003'
000003                     323 EQN00003 EQU       0003
00250E  2656               324          DC    AL2(N00004)
002510  0004               325          DC    XL2'0004'
000004                     326 EQN00004 EQU       0004
002512  2668               327          DC    AL2(N00005)
002514  0005               328          DC    XL2'0005'
000005                     329 EQN00005 EQU       0005
002516  266C               330          DC    AL2(N00006)
002518  0006               331          DC    XL2'0006'
000006                     332 EQN00006 EQU       0006
00251A  2670               333          DC    AL2(N00007)
00251C  0007               334          DC    XL2'0007'
000007                     335 EQN00007 EQU       0007
00251E  2688               336          DC    AL2(N00008)
002520  0008               337          DC    XL2'0008'
000008                     338 EQN00008 EQU       0008
002522  269A               339          DC    AL2(N00009)
002524  0009               340          DC    XL2'0009'
000009                     341 EQN00009 EQU       0009
002526  26AC               342          DC    AL2(N00010)
002528  0010               343          DC    XL2'0010'
00000A                     344 EQN00010 EQU       0010
00252A  26BE               345          DC    AL2(N00011)
00252C  0011               346          DC    XL2'0011'
00000B                     347 EQN00011 EQU       0011
00252E  26D6               348          DC    AL2(N00012)
002530  0012               349          DC    XL2'0012'
00000C                     350 EQN00012 EQU       0012
002532  26DA               351          DC    AL2(N00013)
002534  0013               352          DC    XL2'0013'
00000D                     353 EQN00013 EQU       0013
002536  26DE               354          DC    AL2(N00014)
002538  0014               355          DC    XL2'0014'
00000E                     356 EQN00014 EQU       0014
00253A  26E2               357          DC    AL2(N00015)
00253C  0015               358          DC    XL2'0015'
00000F                     359 EQN00015 EQU       0015
00253E  26E6               360          DC    AL2(N00016)
002540  0016               361          DC    XL2'0016'
000010                     362 EQN00016 EQU       0016
002542  26EA               363          DC    AL2(N00017)
002544  0017               364          DC    XL2'0017'
000011                     365 EQN00017 EQU       0017
002546  2700               366          DC    AL2(N00018)
002548  0018               367          DC    XL2'0018'
000012                     368 EQN00018 EQU       0018
00254A  2704               369          DC    AL2(N00019)
00254C  0019               370          DC    XL2'0019'
000013                     371 EQN00019 EQU       0019
00254E  271A               372          DC    AL2(N00020)
002550  0020               373          DC    XL2'0020'
000014                     374 EQN00020 EQU       0020
002552  271E               375          DC    AL2(N00021)
002554  0021               376          DC    XL2'0021'
000015                     377 EQN00021 EQU       0021
002556  2734               378          DC    AL2(N00022)
002558  0022               379          DC    XL2'0022'
000016                     380 EQN00022 EQU       0022
00255A  2738               381          DC    AL2(N00023)
00255C  0023               382          DC    XL2'0023'
000017                     383 EQN00023 EQU       0023
00255E  274E               384          DC    AL2(N00024)
002560  0024               385          DC    XL2'0024'
000018                     386 EQN00024 EQU       0024
002562  2760               387          DC    AL2(N00025)
002564  0025               388          DC    XL2'0025'
000019                     389 EQN00025 EQU       0025
002566  2764               390          DC    AL2(N00026)
002568  0026               391          DC    XL2'0026'
00001A                     392 EQN00026 EQU       0026
00256A  2768               393          DC    AL2(N00027)
00256C  0027               394          DC    XL2'0027'
00001B                     395 EQN00027 EQU       0027
00256E  277E               396          DC    AL2(N00028)
002570  0028               397          DC    XL2'0028'
00001C                     398 EQN00028 EQU       0028
002572  2790               399          DC    AL2(N00029)
002574  0029               400          DC    XL2'0029'
00001D                     401 EQN00029 EQU       0029
002576  2794               402          DC    AL2(N00030)
002578  0030               403          DC    XL2'0030'
00001E                     404 EQN00030 EQU       0030
00257A  2798               405          DC    AL2(N00031)
00257C  0031               406          DC    XL2'0031'
00001F                     407 EQN00031 EQU       0031
00257E  27AE               408          DC    AL2(N00032)
002580  0032               409          DC    XL2'0032'
000020                     410 EQN00032 EQU       0032
002582  27C0               411          DC    AL2(N00033)
002584  0033               412          DC    XL2'0033'
000021                     413 EQN00033 EQU       0033
002586  27C4               414          DC    AL2(N00034)
002588  0034               415          DC    XL2'0034'
000022                     416 EQN00034 EQU       0034
00258A  27C8               417          DC    AL2(N00035)
00258C  0035               418          DC    XL2'0035'
000023                     419 EQN00035 EQU       0035
00258E  27DE               420          DC    AL2(N00036)
002590  0036               421          DC    XL2'0036'
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LOCTR  OBJECT TEXT        STMT SOURCE STATEMENT
000024                     422 EQN00036 EQU       0036
002592  27E2               423          DC    AL2(N00037)
002594  0037               424          DC    XL2'0037'
000025                     425 EQN00037 EQU       0037
002596  27F8               426          DC    AL2(N00038)
002598  0038               427          DC    XL2'0038'
000026                     428 EQN00038 EQU       0038
00259A  27FC               429          DC    AL2(N00039)
00259C  0039               430          DC    XL2'0039'
000027                     431 EQN00039 EQU       0039
00259E  2812               432          DC    AL2(N00040)
0025A0  0040               433          DC    XL2'0040'
000028                     434 EQN00040 EQU       0040
0025A2  2816               435          DC    AL2(N00041)
0025A4  0041               436          DC    XL2'0041'
000029                     437 EQN00041 EQU       0041
0025A6  2828               438          DC    AL2(N00042)
0025A8  0042               439          DC    XL2'0042'
00002A                     440 EQN00042 EQU       0042
0025AA  282C               441          DC    AL2(N00043)
0025AC  0043               442          DC    XL2'0043'
00002B                     443 EQN00043 EQU       0043
0025AE  2842               444          DC    AL2(N00044)
0025B0  0044               445          DC    XL2'0044'
00002C                     446 EQN00044 EQU       0044
0025B2  2846               447          DC    AL2(N00045)
0025B4  0045               448          DC    XL2'0045'
00002D                     449 EQN00045 EQU       0045
0025B6  2858               450          DC    AL2(N00046)
0025B8  0046               451          DC    XL2'0046'
00002E                     452 EQN00046 EQU       0046
0025BA  285A               453          DC    AL2(N00047)
0025BC  0047               454          DC    XL2'0047'
00002F                     455 EQN00047 EQU       0047
0025BE  2870               456          DC    AL2(N00048)
0025C0  0048               457          DC    XL2'0048'
000030                     458 EQN00048 EQU       0048
0025C2  2874               459          DC    AL2(N00049)
0025C4  0049               460          DC    XL2'0049'
000031                     461 EQN00049 EQU       0049
0025C6  288A               462          DC    AL2(N00050)
0025C8  0050               463          DC    XL2'0050'
000032                     464 EQN00050 EQU       0050
0025CA  289C               465          DC    AL2(N00051)
0025CC  0051               466          DC    XL2'0051'
000033                     467 EQN00051 EQU       0051
0025CE  28A0               468          DC    AL2(N00052)
0025D0  0052               469          DC    XL2'0052'
000034                     470 EQN00052 EQU       0052
0025D2  28A4               471          DC    AL2(N00053)
0025D4  0053               472          DC    XL2'0053'
000035                     473 EQN00053 EQU       0053
0025D6  28BA               474          DC    AL2(N00054)
0025D8  0054               475          DC    XL2'0054'
000036                     476 EQN00054 EQU       0054
0025DA  28CC               477          DC    AL2(N00055)
0025DC  0055               478          DC    XL2'0055'
000037                     479 EQN00055 EQU       0055
0025DE  28D0               480          DC    AL2(N00056)
0025E0  0056               481          DC    XL2'0056'
000038                     482 EQN00056 EQU       0056
0025E2  28D4               483          DC    AL2(N00057)
0025E4  0057               484          DC    XL2'0057'
000039                     485 EQN00057 EQU       0057
0025E6  28EA               486          DC    AL2(N00058)
0025E8  0058               487          DC    XL2'0058'
00003A                     488 EQN00058 EQU       0058
0025EA  28FC               489          DC    AL2(N00059)
0025EC  0059               490          DC    XL2'0059'
00003B                     491 EQN00059 EQU       0059
0025EE  290E               492          DC    AL2(N00060)
0025F0  0060               493          DC    XL2'0060'
00003C                     494 EQN00060 EQU       0060
0025F2  2912               495          DC    AL2(N00061)
0025F4  0061               496          DC    XL2'0061'
00003D                     497 EQN00061 EQU       0061
0025F6  2916               498          DC    AL2(N00062)
0025F8  0062               499          DC    XL2'0062'
00003E                     500 EQN00062 EQU       0062
0025FA  291A               501          DC    AL2(N00063)
0025FC  0063               502          DC    XL2'0063'
00003F                     503 EQN00063 EQU       0063
0025FE  2930               504          DC    AL2(N00064)
002600  0064               505          DC    XL2'0064'
000040                     506 EQN00064 EQU       0064
002602  2942               507          DC    AL2(N00065)
002604  0065               508          DC    XL2'0065'
000041                     509 EQN00065 EQU       0065
002606  2954               510          DC    AL2(N00066)
002608  0066               511          DC    XL2'0066'
000042                     512 EQN00066 EQU       0066
00260A  2958               513          DC    AL2(N00067)
00260C  0067               514          DC    XL2'0067'
000043                     515 EQN00067 EQU       0067
00260E  295C               516          DC    AL2(N00068)
002610  0068               517          DC    XL2'0068'
000044                     518 EQN00068 EQU       0068
002612  2960               519          DC    AL2(N00069)
002614  0069               520          DC    XL2'0069'
000045                     521 EQN00069 EQU       0069
002616  2976               522          DC    AL2(N00070)
002618  0070               523          DC    XL2'0070'
000046                     524 EQN00070 EQU       0070
00261A  297A               525          DC    AL2(N00071)
00261C  0071               526          DC    XL2'0071'
000047                     527 EQN00071 EQU       0071
00261E  298C               528          DC    AL2(N00072)
002620  0072               529          DC    XL2'0072'
000048                     530 EQN00072 EQU       0072
002622  298E               531          DC    AL2(N00073)
002624  0073               532          DC    XL2'0073'
000049                     533 EQN00073 EQU       0073
002626  29A4               534          DC    AL2(N00074)
002628  0074               535          DC    XL2'0074'
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 LOCTR  OBJECT TEXT   STMT SOURCE STATEMENT                                    COPYRIGHT IBM CORP 1976
00004A                 536 EQN00074 EQU     0074
00262A  29A8           537          DC      AL2(N00075)
00262C  0075           538          DC      XL2'0075'
00004B                 539 EQN00075 EQU     0075
00262E  0000           540          DC      AL2(DUMMY)
                       541 ********************************************************************************
                       542 ********************************************************************************
                       543 **                                                                            **
                       544 **                          RULE INFORMATION TABLE                            **
                       545 **                                                                            **
                       546 ********************************************************************************
                       547 ********************************************************************************
                       548 N00001   $QUES QT=(Q00079),YES=N00003,CT=(C00076)
002630  0100           549+N00001   DC      A(@QUES)
002632  2640           550+         DC      AL2(N00003)
                       551 N00002   $GOTO TYPE=INTRNL,EP=A,FT=(F00082),GTO=(N00001)
002634  0200           552+N00002   DC      A(@GOTO)
002636  29B8           553+         DC      A(F00082)
002638  F3C3F0F0       554+         DC      CL4'3C00'
00263C  C140           555+         DC      CL2'A'
00263E  0000           556+         DC      AL2(INTRNL)
                       557 N00003   $TUXX T7800,02,0708,EQ,PLNG=6,PARM=6F0000,QT=(Q00085),        X
002640  0500           558+N00003   DC      A(@TUXX)
002642  2670           559+         DC      AL2(N00007)
002644  2DEA           560+         DC      A(T7800)
002646  0000           561+         DC      AL2(EQ)
002648  0002           562+         DC      AL2(02)
00264A  0708           563+         DC      X'0708'
                       564+         ALIGN   WORD
00264C  0006           565+         DC      AL2(6)
00264E  F6C6F0F0F0F0   566+         DC      C'6F0000'
                       567+         ALIGN   WORD
002654  196E           568+         DC       AL2(PARMARA)
                       569 N00004   $TUXX T3C02,02,0008,EQ,,QT=(Q00088),YES=N00006,ST=(S00054)
002656  0500           570+N00004   DC      A(@TUXX)
002658  266C           571+         DC      AL2(N00006)
00265A  2DE2           572+         DC      A(T3C02)
00265C  0000           573+         DC      AL2(EQ)
00265E  0002           574+         DC      AL2(02)
002660  0008           575+         DC      X'0008'
                       576+         ALIGN   WORD
002662  0000           577+         DC      AL2(0)
002664  C1C1           578+         DC      C'AA'
                       579+         ALIGN   WORD
002666  196E           580+         DC       AL2(PARMARA)
                       581 N00005   $FIXT FT=(F00014),CT=(C00049)
002668  0101           582+N00005   DC      A(@FIXT)
00266A  29CE           583+         DC      A(F00014)
                       584 N00006   $FIXT FT=(F00014),CT=(C00049)
00266C  0101           585+N00006   DC      A(@FIXT)
00266E  29CE           586+         DC      A(F00014)
                       587 N00007   $TUXX T7800,04,07080000,EQ,PLNG=6,PARM=200000,QT=(Q00098),     X
002670  0500           588+N00007   DC      A(@TUXX)
002672  26EA           589+         DC      AL2(N00017)
002674  2DEA           590+         DC      A(T7800)
002676  0000           591+         DC      AL2(EQ)
002678  0004           592+         DC      AL2(04)
00267A  07080000       593+         DC      X'07080000'
                       594+         ALIGN   WORD
00267E  0006           595+         DC      AL2(6)
002680  F2F0F0F0F0F0   596+         DC      C'200000'
                       597+         ALIGN   WORD
002686  196E           598+         DC       AL2(PARMARA)
                       599 N00008   $TUXX T3C02,02,0708,EQ,QT=(Q00101),YES=N00016,ST=(S00054)
002688  0500           600+N00008   DC      A(@TUXX)
00268A  26B6           601+         DC      AL2(N00016)
00268C  2DE2           602+         DC      A(T3C02)
00268E  0000           603+         DC      AL2(EQ)
002690  0002           604+         DC      AL2(02)
002692  0708           605+         DC      X'0708'
                       606+         ALIGN   WORD
002694  0000           607+         DC      AL2(0)
002696  C1C1           608+         DC      C'AA'
                       609+         ALIGN   WORD
002698  196E           610+         DC       AL2(PARMARA)
                       611 N00009   $TUXX T3C02,02,0508,EQ,QT=(Q00104),YES=N00015,ST=(S00054)
00269A  0500           612+N00009   DC      A(@TUXX)
00269C  26E2           613+         DC      AL2(N00015)
00269E  2DE2           614+         DC      A(T3C02)
0026A0  0000           615+         DC      AL2(EQ)
0026A2  0002           616+         DC      AL2(02)
0026A4  0508           617+         DC      X'0508'
                       618+         ALIGN   WORD
0026A6  0000           619+         DC      AL2(0)
0026A8  C1C1           620+         DC      C'AA'
                       621+         ALIGN   WORD
0026AA  196E           622+         DC       AL2(PARMARA)
                       623 N00010   $TUXX T3C02,02,0408,EQ,,QT=(Q00107),YES=N00014,ST=(S00054)
0026AC  0500           624+N00010   DC      A(@TUXX)
0026AE  26DE           625+         DC      AL2(N00014)
0026B0  2DE2           626+         DC      A(T3C02)
0026B2  0000           627+         DC      AL2(EQ)
0026B4  0002           628+         DC      AL2(02)
0026B6  0408           629+         DC      X'0408'
                       630+         ALIGN   WORD
0026B8  0000           631+         DC      AL2(0)
0026BA  C1C1           632+         DC      C'AA'
                       633+         ALIGN   WORD
0026BC  196E           634+         DC       AL2(PARMARA)
                       635 N00011   $TUXX T7800,04,00080000,EQ,PLNG=6,PARM=200000,QT=(Q00110),     X
0026BE  0500           636+N00011   DC      A(@TUXX)
0026C0  26DA           637+         DC      AL2(N00013)
0026C2  2DEA           638+         DC      A(T7800)
0026C4  0000           639+         DC      AL2(EQ)
0026C6  0004           640+         DC      AL2(04)
0026C8  00080000       641+         DC      X'00080000'
                       642+         ALIGN   WORD
0026CC  0006           643+         DC      AL2(6)
0026CE  F2F0F0F0F0F0   644+         DC      C'200000'
                       645+         ALIGN   WORD
0026D4  196E           646+         DC       AL2(PARMARA)
                       647 N00012   $FIXT FT=(F00113),CT=(C00049)
0026D6  0101           648+N00012   DC      A(@FIXT)
0026D8  29EE           649+         DC      A(F00113)
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 LOCTR  OBJECT TEXT   STMT SOURCE STATEMENT                                    COPYRIGHT IBM CORP 1976
                       650 N00013   $FIXT FT=(F00119),CT=(C00049)
0026DA  0101           651+N00013   DC      A(@FIXT)
0026DC  2A28           652+         DC      A(F00119)
                       653 N00014   $FIXT FT=(F00014),CT=(C00049)
0026DE  0101           654+N00014   DC      A(@FIXT)
0026E0  29CE           655+         DC      A(F00014)
                       656 N00015   $FIXT FT=(F00125),CT=(C00049)
0026E2  0101           657+N00015   DC      A(@FIXT)
0026E4  2AAA           658+         DC      A(F00125)
                       659 N00016   $FIXT FT=(F00116),CT=(C00049)
0026E6  0101           660+N00016   DC      A(@FIXT)
0026E8  2AE2           661+         DC      A(F00116)
                       662 N00017   $TUXX T7800,02,0308,EQ,PLNG=6,PARM=000000,QT=(Q00129),        X
0026EA  0500           663+N00017   DC      A(@TUXX)
0026EC  2704           664+         DC      AL2(N00019)
0026EE  2DEA           665+         DC      A(T7800)
0026F0  0000           666+         DC      AL2(EQ)
0026F2  0002           667+         DC      AL2(02)
0026F4  0308           668+         DC      X'0308'
                       669+         ALIGN   WORD
0026F6  0006           670+         DC      AL2(6)
0026F8  F0F0F0F0F0F0   671+         DC      C'000000'
                       672+         ALIGN   WORD
0026FE  196E           673+         DC       AL2(PARMARA)
                       674 N00018   $FIXT FT=(F00014),CT=(C00049)
002700  0101           675+N00018   DC      A(@FIXT)
002702  29CE           676+         DC      A(F00014)
                       677 N00019   $TUXX T7800,02,0308,EQ,PLNG=6,PARM=100000,QT=(Q00136),        X
002704  0500           678+N00019   DC      A(@TUXX)
002706  271E           679+         DC      AL2(N00021)
002708  2DEA           680+         DC      A(T7800)
00270A  0000           681+         DC      AL2(EQ)
00270C  0002           682+         DC      AL2(02)
00270E  0308           683+         DC      X'0308'
                       684+         ALIGN   WORD
002710  0006           685+         DC      AL2(6)
002712  F1F0F0F0F0F0   686+         DC      C'100000'
                       687+         ALIGN   WORD
002718  196E           688+         DC       AL2(PARMARA)
                       689 N00020   $FIXT FT=(F00014),CT=(C00049)
00271A  0101           690+N00020   DC      A(@FIXT)
00271C  29CE           691+         DC      A(F00014)
                       692 N00021   $TUXX T7800,02,0308,EQ,PLNG=6,PARM=270000,QT=(Q00145),        X
00271E  0500           693+N00021   DC      A(@TUXX)
002720  2738           694+         DC      AL2(N00023)
002722  2DEA           695+         DC      A(T7800)
002724  0000           696+         DC      AL2(EQ)
002726  0002           697+         DC      AL2(02)
002728  0308           698+         DC      X'0308'
                       699+         ALIGN   WORD
00272A  0006           700+         DC      AL2(6)
00272C  F2F7F0F0F0F0   701+         DC      C'270000'
                       702+         ALIGN   WORD
002732  196E           703+         DC       AL2(PARMARA)
                       704 N00022   $FIXT FT=(F00014),CT=(C00049)
002734  0101           705+N00022   DC      A(@FIXT)
002736  29CE           706+         DC      A(F00014)
                       707 N00023   $TUXX T7800,02,0708,EQ,PLNG=6,PARM=600000,QT=(Q00153),        X
002738  0500           708+N00023   DC      A(@TUXX)
00273A  2768           709+         DC      AL2(N00027)
00273C  2DEA           710+         DC      A(T7800)
00273E  0000           711+         DC      AL2(EQ)
002740  0002           712+         DC      AL2(02)
002742  0708           713+         DC      X'0708'
                       714+         ALIGN   WORD
002744  0006           715+         DC      AL2(6)
002746  F6F0F0F0F0F0   716+         DC      C'600000'
                       717+         ALIGN   WORD
00274C  196E           718+         DC       AL2(PARMARA)
                       719 N00024   $TUXX T3C02,02,0508,EQ,QT=(Q00156),YES=N00026,ST=(S00054)
00274E  0500           720+N00024   DC      A(@TUXX)
002750  2764           721+         DC      AL2(N00026)
002752  2DE2           722+         DC      A(T3C02)
002754  0000           723+         DC      AL2(EQ)
002756  0002           724+         DC      AL2(02)
002758  0508           725+         DC      X'0508'
                       726+         ALIGN   WORD
00275A  0000           727+         DC      AL2(0)
00275C  C1C1           728+         DC      C'AA'
                       729+         ALIGN   WORD
00275E  196E           730+         DC       AL2(PARMARA)
                       731 N00025   $FIXT FT=(F00014),CT=(C00049)
002760  0101           732+N00025   DC      A(@FIXT)
002762  29CE           733+         DC      A(F00014)
                       734 N00026   $FIXT FT=(F00162),CT=(C00049)
002764  0101           735+N00026   DC      A(@FIXT)
002766  2B18           736+         DC      A(F00162)
                       737 N00027   $TUXX T7800,02,0708,EQ,PLNG=6,PARM=602222,QT=(Q00167),        X
002768  0500           738+N00027   DC      A(@TUXX)
00276A  2798           739+         DC      AL2(N00031)
00276C  2DEA           740+         DC      A(T7800)
00276E  0000           741+         DC      AL2(EQ)
002770  0002           742+         DC      AL2(02)
002772  0708           743+         DC      X'0708'
                       744+         ALIGN   WORD
002774  0006           745+         DC      AL2(6)
002776  F6F0F2F2F2F2   746+         DC      C'602222'
                       747+         ALIGN   WORD
00277C  196E           748+         DC       AL2(PARMARA)
                       749 N00028   $TUXX T3C02,02,0508,EQ,QT=(Q00170),YES=N00030,ST=(S00054)
00277E  0500           750+N00028   DC      A(@TUXX)
002780  2794           751+         DC      AL2(N00030)
002782  2DE2           752+         DC      A(T3C02)
002784  0000           753+         DC      AL2(EQ)
002786  0002           754+         DC      AL2(02)
002788  0508           755+         DC      X'0508'
                       756+         ALIGN   WORD
00278A  0000           757+         DC      AL2(0)
00278C  C1C1           758+         DC      C'AA'
                       759+         ALIGN   WORD
00278E  196E           760+         DC       AL2(PARMARA)
                       761 N00029   $FIXT FT=(F00014),CT=(C00049)
002790  0101           762+N00029   DC      A(@FIXT)
002792  29CE           763+         DC      A(F00014)
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 LOCTR  OBJECT TEXT        STMT SOURCE STATEMENT                                    COPYRIGHT IBM CORP 1976

                            764 N00030   $FIXT FT=(F00176),CT=(C00049)
002794  0101                765+N00030   DC    A(@FIXT)
002796  2B50                766+         DC    A(F00176)
                            767 N00031   $TUXX T7800,02,0708,EQ,PLNG=6,PARM=60FFFE,QT=(Q00181),        X
002798  0500                768+N00031   DC    A(@TUXX)
00279A  27C8                769+         DC    AL2(N00035)
00279C  2DEA                770+         DC    A(T7800)
00279E  0000                771+         DC    AL2(EQ)
0027A0  0002                772+         DC    AL2(02)
0027A2  0708                773+         DC    X'0708'
                            774+         ALIGN WORD
0027A4  0006                775+         DC    AL2(6)
0027A6  F6F0C6C6C6C5        776+         DC    C'60FFFE'
                            777+         ALIGN WORD
0027AC  196E                778+         DC     AL2(PARMARA)
                            779 N00032   $TUXX T3C02,02,0508,EQ,QT=(Q00184),YES=N00034,ST=(S00054)
0027AE  0500                780+N00032   DC    A(@TUXX)
0027B0  27C4                781+         DC    AL2(N00034)
0027B2  2DE2                782+         DC    A(T3C02)
0027B4  0000                783+         DC    AL2(EQ)
0027B6  0002                784+         DC    AL2(02)
0027B8  0508                785+         DC    X'0508'
                            786+         ALIGN WORD
0027BA  0000                787+         DC    AL2(0)
0027BC  C1C1                788+         DC    C'AA'
                            789+         ALIGN WORD
0027BE  196E                790+         DC     AL2(PARMARA)
                            791 N00033   $FIXT FT=(F00014),CT=(C00049)
0027C0  0101                792+N00033   DC    A(@FIXT)
0027C2  29CE                793+         DC    A(F00014)
                            794 N00034   $FIXT FT=(F00190),CT=(C00049)
0027C4  0101                795+N00034   DC    A(@FIXT)
0027C6  2B88                796+         DC    A(F00190)
                            797 N00035   $TUXX T7800,02,0308,EQ,PLNG=6,PARM=650000,QT=(Q00195),        X
0027C8  0500                798+N00035   DC    A(@TUXX)
0027CA  27E2                799+         DC    AL2(N00037)
0027CC  2DEA                800+         DC    A(T7800)
0027CE  0000                801+         DC    AL2(EQ)
0027D0  0002                802+         DC    AL2(02)
0027D2  0308                803+         DC    X'0308'
                            804+         ALIGN WORD
0027D4  0006                805+         DC    AL2(6)
0027D6  F6F5F0F0F0F0        806+         DC    C'650000'
                            807+         ALIGN WORD
0027DC  196E                808+         DC     AL2(PARMARA)
                            809 N00036   $FIXT FT=(F00014),CT=(C00049)
0027DE  0101                810+N00036   DC    A(@FIXT)
0027E0  29CE                811+         DC    A(F00014)
                            812 N00037   $TUXX T7800,02,0708,EQ,PLNG=6,PARM=400000,QT=(Q00202),        X
0027E2  0500                813+N00037   DC    A(@TUXX)
0027E4  27FC                814+         DC    AL2(N00039)
0027E6  2DEA                815+         DC    A(T7800)
0027E8  0000                816+         DC    AL2(EQ)
0027EA  0002                817+         DC    AL2(02)
0027EC  0708                818+         DC    X'0708'
                            819+         ALIGN WORD
0027EE  0006                820+         DC    AL2(6)
0027F0  F4F0F0F0F0F0        821+         DC    C'400000'
                            822+         ALIGN WORD
0027F6  196E                823+         DC     AL2(PARMARA)
                            824 N00038   $FIXT FT=(F00014),CT=(C00049)
0027F8  0101                825+N00038   DC    A(@FIXT)
0027FA  29CE                826+         DC    A(F00014)
                            827 N00039   $TUXX T7800,02,0708,EQ,PLNG=6,PARM=400100,QT=(Q00209),        X
0027FC  0500                828+N00039   DC    A(@TUXX)
0027FE  2816                829+         DC    AL2(N00041)
002800  2DEA                830+         DC    A(T7800)
002802  0000                831+         DC    AL2(EQ)
002804  0002                832+         DC    AL2(02)
002806  0708                833+         DC    X'0708'
                            834+         ALIGN WORD
002808  0006                835+         DC    AL2(6)
00280A  F4F0F0F1F0F0        836+         DC    C'400100'
                            837+         ALIGN WORD
002810  196E                838+         DC     AL2(PARMARA)
                            839 N00040   $FIXT FT=(F00014),CT=(C00049)
002812  0101                840+N00040   DC    A(@FIXT)
002814  29CE                841+         DC    A(F00014)
                            842 N00041   $TUXX T3C02,02,0708,EQ,QT=(Q00215),YES=N00043,ST=(S00054)
002816  0500                843+N00041   DC    A(@TUXX)
002818  282C                844+         DC    AL2(N00043)
00281A  2DE2                845+         DC    A(T3C02)
00281C  0000                846+         DC    AL2(EQ)
00281E  0002                847+         DC    AL2(02)
002820  0708                848+         DC    X'0708'
                            849+         ALIGN WORD
002822  0000                850+         DC    AL2(0)
002824  C1C1                851+         DC    C'AA'
                            852+         ALIGN WORD
002826  196E                853+         DC     AL2(PARMARA)
                            854 N00042   $FIXT FT=(F00014),CT=(C00049)
002828  0101                855+N00042   DC    A(@FIXT)
00282A  29CE                856+         DC    A(F00014)
                            857 N00043   $TUXX T7800,02,0708,EQ,PLNG=6,PARM=6F0000,QT=(Q00222),        X
00282C  0500                858+N00043   DC    A(@TUXX)
00282E  2846                859+         DC    AL2(N00045)
002830  2DEA                860+         DC    A(T7800)
002832  0000                861+         DC    AL2(EQ)
002834  0002                862+         DC    AL2(02)
002836  0708                863+         DC    X'0708'
                            864+         ALIGN WORD
002838  0006                865+         DC    AL2(6)
00283A  F6C6F0F0F0F0        866+         DC    C'6F0000'
                            867+         ALIGN WORD
002840  196E                868+         DC     AL2(PARMARA)
                            869 N00044   $FIXT FT=(F00014),CT=(C00049)
002842  0101                870+N00044   DC    A(@FIXT)
002844  29CE                871+         DC    A(F00014)
                            872 N00045   $TUXX T7805,02,0000,EQ,,YES=N00047,CT=(C00228)
002846  0500                873+N00045   DC    A(@TUXX)
002848  285A                874+         DC    AL2(N00047)
00284A  285C                875+         DC    A(T7805)
00284C  0000                876+         DC    AL2(EQ)
00284E  0002                877+         DC    AL2(02)
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 LOCTR  OBJECT TEXT        STMT SOURCE STATEMENT                                    COPYRIGHT IBM CORP 1976

002850  0000                878+         DC    X'0000'
                            879+         ALIGN WORD
002852  0000                880+         DC    AL2(0)
002854  C1C1                881+         DC    C'AA'
                            882+         ALIGN WORD
002856  196E                883+         DC     AL2(PARMARA)
                            884 N00046   $NVID FT=(F00230)
002858  0600                885+N00046   DC    A(@NVID)
                            886 N00047   $TUXX T7800,02,0708,EQ,PLNG=6,PARM=6F0000,QT=(Q00233),        X
00285A  0500                887+N00047   DC    A(@TUXX)
00285C  2874                888+         DC    AL2(N00049)
00285E  2DEA                889+         DC    A(T7800)
002860  0000                890+         DC    AL2(EQ)
002862  0002                891+         DC    AL2(02)
002864  0708                892+         DC    X'0708'
                            893+         ALIGN WORD
002866  0006                894+         DC    AL2(6)
002868  F6C6F0F0F0F0        895+         DC    C'6F0000'
                            896+         ALIGN WORD
00286E  196E                897+         DC     AL2(PARMARA)
                            898 N00048   $FIXT FT=(F00014),CT=(C00049)
002870  0101                899+N00048   DC    A(@FIXT)
002872  29CE                900+         DC    A(F00014)
                            901 N00049   $TUXX T7800,02,0708,EQ,PLNG=6,PARM=210000,QT=(Q00241),        X
002874  0500                902+N00049   DC    A(@TUXX)
002876  28A4                903+         DC    AL2(N00053)
002878  2DEA                904+         DC    A(T7800)
00287A  0000                905+         DC    AL2(EQ)
00287C  0002                906+         DC    AL2(02)
00287E  0708                907+         DC    X'0708'
                            908+         ALIGN WORD
002880  0006                909+         DC    AL2(6)
002882  F2F1F0F0F0F0        910+         DC    C'210000'
                            911+         ALIGN WORD
002888  196E                912+         DC     AL2(PARMARA)
                            913 N00050   $TUXX T3C02,02,0508,EQ,,QT=(Q00244),YES=N00052,ST=(S00054)
00288A  0500                914+N00050   DC    A(@TUXX)
00288C  28A0                915+         DC    AL2(N00052)
00288E  2DE2                916+         DC    A(T3C02)
002890  0000                917+         DC    AL2(EQ)
002892  0002                918+         DC    AL2(02)
002894  0508                919+         DC    X'0508'
                            920+         ALIGN WORD
002896  0000                921+         DC    AL2(0)
002898  C1C1                922+         DC    C'AA'
                            923+         ALIGN WORD
00289A  196E                924+         DC     AL2(PARMARA)
                            925 N00051   $FIXT FT=(F00014),CT=(C00049)
00289C  0101                926+N00051   DC    A(@FIXT)
00289E  29CE                927+         DC    A(F00014)
                            928 N00052   $FIXT FT=(F00250),CT=(C00049)
0028A0  0101                929+N00052   DC    A(@FIXT)
0028A2  2BD6                930+         DC    A(F00250)
                            931 N00053   $TUXX T7800,02,0708,EQ,PLNG=6,PARM=220000,QT=(Q00255),        X
0028A4  0500                932+N00053   DC    A(@TUXX)
0028A6  28D4                933+         DC    AL2(N00057)
0028A8  2DEA                934+         DC    A(T7800)
0028AA  0000                935+         DC    AL2(EQ)
0028AC  0002                936+         DC    AL2(02)
0028AE  0708                937+         DC    X'0708'
                            938+         ALIGN WORD
0028B0  0006                939+         DC    AL2(6)
0028B2  F2F2F0F0F0F0        940+         DC    C'220000'
                            941+         ALIGN WORD
0028B8  196E                942+         DC     AL2(PARMARA)
                            943 N00054   $TUXX T3C02,02,0508,EQ,,QT=(Q00258),YES=N00056,ST=(S00054)
0028BA  0500                944+N00054   DC    A(@TUXX)
0028BC  28D0                945+         DC    AL2(N00056)
0028BE  2DE2                946+         DC    A(T3C02)
0028C0  0000                947+         DC    AL2(EQ)
0028C2  0002                948+         DC    AL2(02)
0028C4  0508                949+         DC    X'0508'
                            950+         ALIGN WORD
0028C6  0000                951+         DC    AL2(0)
0028C8  C1C1                952+         DC    C'AA'
                            953+         ALIGN WORD
0028CA  196E                954+         DC     AL2(PARMARA)
                            955 N00055   $FIXT FT=(F00014),CT=(C00049)
0028CC  0101                956+N00055   DC    A(@FIXT)
0028CE  29CE                957+         DC    A(F00014)
                            958 N00056   $FIXT FT=(F00264),CT=(C00049)
0028D0  0101                959+N00056   DC    A(@FIXT)
0028D2  2C0E                960+         DC    A(F00264)
                            961 N00057   $TUXX T7800,02,0708,EQ,PLNG=6,PARM=400000,QT=(Q00268),        X
0028D4  0500                962+N00057   DC    A(@TUXX)
0028D6  291A                963+         DC    AL2(N00063)
0028D8  2DEA                964+         DC    A(T7800)
0028DA  0000                965+         DC    AL2(EQ)
0028DC  0002                966+         DC    AL2(02)
0028DE  0708                967+         DC    X'0708'
                            968+         ALIGN WORD
0028E0  0006                969+         DC    AL2(6)
0028E2  F4F0F0F0F0F0        970+         DC    C'400000'
                            971+         ALIGN WORD
0028E8  196E                972+         DC     AL2(PARMARA)
                            973 N00058   $TUXX T3C02,02,0508,EQ,,QT=(Q00271),YES=N00062,ST=(S00054)
0028EA  0500                974+N00058   DC    A(@TUXX)
0028EC  2916                975+         DC    AL2(N00062)
0028EE  2DE2                976+         DC    A(T3C02)
0028F0  0000                977+         DC    AL2(EQ)
0028F2  0002                978+         DC    AL2(02)
0028F4  0508                979+         DC    X'0508'
                            980+         ALIGN WORD
0028F6  0000                981+         DC    AL2(0)
0028F8  C1C1                982+         DC    C'AA'
                            983+         ALIGN WORD
0028FA  196E                984+         DC     AL2(PARMARA)
                            985 N00059   $TUXX T3C02,02,0108,EQ,,QT=(Q00274),YES=N00061,ST=(S00054)
0028FC  0500                986+N00059   DC    A(@TUXX)
0028FE  2912                987+         DC    AL2(N00061)
002900  2DE2                988+         DC    A(T3C02)
002902  0000                989+         DC    AL2(EQ)
002904  0002                990+         DC    AL2(02)
002906  0108                991+         DC    X'0108'
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 LOCTR  OBJECT TEXT        STMT SOURCE STATEMENT                                    COPYRIGHT IBM COPP 1976

                            992+          ALIGN WORD
002908  0000                993+          DC    AL2(0)
00290A  C1C1                994+          DC    C'AA'
                            995+          ALIGN WORD
00290C  196E                996+          DC     AL2(PARMARA)
                            997 N00060    $FIXT FT=(F00014),CT=(C00049)
00290E  0101                998+N00060    DC    A(@FIXT)
002910  29CE                999+          DC    A(F00014)
                           1000 N00061    $FIXT FT=(F00283),CT=(C00049)
002912  0101                1001+N00061   DC    A(@FIXT)
002914  2C46                1002+         DC    A(F00283)
                           1003 N00062    $FIXT FT=(F00280),CT=(C00049)
002916  0101                1004+N00062   DC    A(@FIXT)
002918  2C84                1005+         DC    A(F00280)
                           1006 N00063    $TUXX T7800,02,0708,EQ,PLNG=6,PARM=410000,QT=(Q00287),        X
                           1007+N00063    DC    A(@TUXX)
00291A  0500                1008+         DC    AL2(N00069)
00291C  2960                1009+         DC    A(T7800)
00291E  2DEA                1010+         DC    AL2(EQ)
002920  0000                1011+         DC    AL2(02)
002922  0002                1012+         DC    X'0708'
002924  0708                1013+         ALIGN WORD
002926  0006                1014+         DC    AL2(6)
002928  F4F1F0F0F0F0        1015+         DC    C'410000'
                            1016+         ALIGN WORD
00292E  196E                1017+         DC     AL2(PARMARA)
                           1018 N00064    $TUXX T3C02,02,0508,EQ,,QT=(Q00290),YES=N00068,ST=(S00054)
002930  0500                1019+N00064   DC    A(@TUXX)
002932  295C                1020+         DC    AL2(N00068)
002934  2DE2                1021+         DC    A(T3C02)
002936  0000                1022+         DC    AL2(EQ)
002938  0002                1023+         DC    AL2(02)
00293A  0508                1024+         DC    X'0508'
                            1025+         ALIGN WORD
00293C  0000                1026+         DC    AL2(0)
00293E  C1C1                1027+         DC    C'AA'
                            1028+         ALIGN WORD
002940  196E                1029+         DC     AL2(PARMARA)
                           1030 N00065    $TUXX T3C02,02,0308,EQ,,QT=(Q00293),YES=N00067,ST=(S00054)
002942  0500                1031+N00065   DC    A(@TUXX)
002944  2958                1032+         DC    AL2(N00067)
002946  2DE2                1033+         DC    A(T3C02)
002948  0000                1034+         DC    AL2(EQ)
00294A  0002                1035+         DC    AL2(02)
00294C  0308                1036+         DC    X'0308'
                            1037+         ALIGN WORD
00294E  0000                1038+         DC    AL2(0)
002950  C1C1                1039+         DC    C'AA'
                            1040+         ALIGN WORD
002952  196E                1041+         DC     AL2(PARMAPA)
                           1042 N00066    $FIXT FT=(F00014),CT=(C00049)
002954  0101                1043+N00066   DC    A(@FIXT)
002956  29CE                1044+         DC    A(F00014)
                           1045 N00067    $FIXT FT=(F00302),CT=(C00049)
002958  0101                1046+N00067   DC    A(@FIXT)
00295A  2CBC                1047+         DC    A(F00302)
                           1048 N00068    $FIXT FT=(F00299),CT=(C00049)
00295C  0101                1049+N00068   DC    A(@FIXT)
00295E  2D04                1050+         DC    A(F00299)
                           1051 N00069    $TUXX T7800,02,0708,EQ,PLNG=6,PARM=6F0000,QT=(Q00306),        X
                           1052+N00069    DC    A(@TUXX)
002960  0500                1053+         DC    AL2(N00071)
002962  297A                1054+         DC    A(T7800)
002964  2DEA                1055+         DC    AL2(EQ)
002966  0000                1056+         DC    AL2(02)
002968  0002                1057+         DC    X'0708'
00296A  0708                1058+         ALIGN WORD
00296C  0006                1059+         DC    AL2(6)
00296E  F6C6F0F0F0F0        1060+         DC    C'6F0000'
                            1061+         ALIGN WORD
002974  196E                1062+         DC     AL2(PARMARA)
                           1063 N00070    $FIXT FT=(F00014),CT=(C00049)
002976  0101                1064+N00070   DC    A(@FIXT)
002978  29CE                1065+         DC    A(F00014)
                           1066 N00071    $TUXX T7805,02,0000,EQ,,YES=N00073,CT=(C00312)
00297A  0500                1067+N00071   DC    A(@TUXX)
00297C  298E                1068+         DC    AL2(N00073)
00297E  2E5C                1069+         DC    A(T7805)
002980  0000                1070+         DC    AL2(EQ)
002982  0002                1071+         DC    AL2(02)
002984  0000                1072+         DC    X'0000'
                            1073+         ALIGN WORD
002986  0000                1074+         DC    AL2(0)
002988  C1C1                1075+         DC    C'AA'
                            1076+         ALIGN WORD
00298A  196E                1077+         DC     AL2(PARMARA)
                           1078 N00072    $NVLD FT=(F00314)
00298C  0600                1079+N00072   DC    A(@NVLD)
                           1080 N00073    $TUXX T7800,02,0708,EQ,PLNG=6,PARM=6F0000,QT=(Q00317),        X
00298E  0500                1081+N00073   DC    A(@TUXX)
002990  29A8                1082+         DC    AL2(N00075)
002992  2DEA                1083+         DC    A(T7800)
002994  0000                1084+         DC    AL2(EQ)
002996  0002                1085+         DC    AL2(02)
002998  0708                1086+         DC    X'0708'
                            1087+         ALIGN WORD
00299A  0006                1088+         DC    AL2(6)
00299C  F6C6F0F0F0F0        1089+         DC    C'6F0000'
                            1090+         ALIGN WORD
0029A2  196E                1091+         DC     AL2(PARMARA)
                           1092 N00074    $FIXT FT=(F00014),CT=(C00049)
0029A4  0101                1093+N00074   DC    A(@FIXT)
0029A6  29CE                1094+         DC    A(F00014)
                           1095 N00075    $FIXT FT=(F00323),GTO=((7801,A))
0029A8  0101                1096+N00075   DC    A(@FIXT)
0029AA  2D52                1097+         DC    A(F00323)
0029AC  0000                1098          DC    AL2(DUMMY)
0029AE                      1099 ENTPT    EQU   *
                            1100 ********************************************************************************
                            1101 ********************************************************************************
                            1102 **                                                                            **
                            1103 **                          ENTRY POINT TABLE                                 **
                            1104 **                                                                            **
                            1105 ********************************************************************************
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 LOCTR  OBJECT TEXT        STMT SOURCE STATEMENT                                    COPYRIGHT IBM CORP 1976

                            1106 ********************************************************************************
                            1107          ENTPT EP=A,STEP=00001
0029AE  C140                1108+         DC    CL2'A'
0029B0  2630                1109+         DC    A(N00001)
                            1110          ENTPT EP=B,STEP=00017
0029B2  C240                1111+         DC    CL2'B'
0029B4  26EA                1112+         DC    A(N00017)
0029B6  0000                1113          DC    AL2(DUMMY)
                            1114 ********************************************************************************
                            1115 ********************************************************************************
                            1116 **                                                                            **
                            1117 **                          MESSAGE TABLE                                     **
                            1118 **                                                                            **
                            1119 ********************************************************************************
                            1120 ********************************************************************************
0029B8                      1121 F00082   EQU   *
0029B8  0001                1122          DC    AL2(0001)
0029BA  0012                1123          DC    A(0018)
0029BC  D9C5E2D7D6D5E2C54   1124          DC    CL0018'RESPONSE NOT VALID'
0029CE                      1125 F00014   EQU   *
0029CE  0001                1126          DC    AL2(0001)
0029D0  001C                1127          DC    A(0028)
0029D2  D9C5D7D3C1C3C540F   1128          DC    CL0028'REPLACE 4962 ATTACHMENT CAPD'
0029EE                      1129 F00113   EQU   *
0029EE  0002                1130          DC    AL2(0002)
0029F0  0018                1131          DC    A(0024)
0029F2  C3D6D5C4C9E3D6D54   1132          DC    CL0024'CONDITON CODE NOT VALID '
002A0A  001C                1133          DC    A(0028)
002A0C  D9C5D7D3C1C3C540F   1134          DC    CL0028'REPLACE 4962 ATTACHMENT CARD'
002A28                      1135 F00119   EQU   *
002A28  0004                1136          DC    AL2(0004)
002A2A  002C                1137          DC    A(0044)
002A2C  E6D9D6D5C740F4F9F   1138          DC    CL0044'WPONG 4962 DEVICE ADDRESS OF 4962 DEVICE NOT'
002A58  0008                1139          DC    A(0008)
002A5A  C1E3E3C1C3C8C5C4    1140          DC    CL0008'ATTACHED'
002A62  0028                1141          DC    A(0040)
002A64  C1E3E3C1C3C8D4C5D   1142          DC    CL0040'ATTACHMENT CAPD NOT PLUGGED IN CARD FILE'
002A8C  001C                1143          DC    A(0028)
002A8E  D9C5D7D3C1C3C540F   1144          DC    CL0028'REPLACE 4962 ATTACHMENT CARD'
002AAA                      1145 F00125   EQU   *
002AAA  0002                1146          DC    AL2(0002)
002AAC  0016                1147          DC    A(0022)
002AAE  C9D5E3C5D9C6C1C3C   1148          DC    CL0022'INTERFACE PAPITY EPROP'
002AC4  001C                1149          DC    A(0028)
002AC6  D9C5D7D3C1C3C540F   1150          DC    CL0028'REPLACE 4962 ATTACHMENT CARD'
002AE2                      1151 F00116   EQU   *
002AE2  0002                1152          DC    AL2(0002)
002AE4  0014                1153          DC    A(0020)
002AE6  E6D9D6D5C740F4F9F   1154          DC    CL0020'WPONG 4962 DEVICE ID'
002AFA  001C                1155          DC    A(0028)
002AFC  D9C5D7D3C1C3C540F   1156          DC    CL0028'REPLACE 4962 ATTACHMENT CARD'
002B18                      1157 F00162   EQU   *
002B18  0002                1158          DC    AL2(0002)
002B1A  0016                1159          DC    A(0022)
002B1C  C9D5E3C5D9C6C1C3C   1160          DC    CL0022'INTERFACE PARITY EPROR'
002B32  001C                1161          DC    A(0028)
002B34  D9C5D7D3C1C3C540F   1162          DC    CL0028'REPLACE 4962 ATTACHMENT CARD'
002B50                      1163 F00176   EQU   *
002B50  0002                1164          DC    AL2(0002)
002B52  0016                1165          DC    A(0022)
002B54  C9D5E3C5D9C6C1C3C   1166          DC    CL0022'INTERFACE PARITY EPROR'
002B6A  001C                1167          DC    A(0028)
002B6C  D9C5D7D3C1C3C540F   1168          DC    CL0028'REPLACE 4962 ATTACHMENT CARD'
002B88                      1169 F00190   EQU   *
002B88  0002                1170          DC    AL2(0002)
002B8A  0016                1171          DC    A(0022)
002B8C  C9D5E3C5D9C6C1C3C   1172          DC    CL0022'INTERFACE PARITY EPROP'
002BA2  001C                1173          DC    A(0028)
002BA4  D9C5D7D3C1C3C540F   1174          DC    CL0028'REPLACE 4962 ATTACHMENT CARD'
002BC0                      1175 F00230   EQU   *
002BC0  0001                1176          DC    AL2(0001)
002BC2  0012                1177          DC    A(0018)
002BC4  7D7DD5D67D7D40C9E   1178          DC    CL0018''''NO'''' IS NOT VALID '
002BD6                      1179 F00250   EQU   *
002BD6  0002                1180          DC    AL2(0002)
002BD8  0016                1181          DC    A(0022)
002BDA  C9D5E3C5D9C6C1C3C   1182          DC    CL0022'INTERFACE PARITY EPROP'
002BF0  001C                1183          DC    A(0028)
002BF2  D9C5D7D3C1C3C540F   1184          DC    CL0028'REPLACE 4962 ATTACHMENT CARD'
002C0E                      1185 F00264   EQU   *
002C0E  0002                1186          DC    AL2(0002)
002C10  0016                1187          DC    A(0022)
002C12  C9D5E3C5D9C6C1C3C   1188          DC    CL0022'INTERFACE PARITY EPROR'
002C28  001C                1189          DC    A(0028)
002C2A  D9C5D7D3C1C3C540F   1190          DC    CL0028'REPLACE 4962 ATTACHMENT CARD'
002C46                      1191 F00283   EQU   *
002C46  0003                1192          DC    AL2(0003)
002C48  0004                1193          DC    A(0004)
002C4A  C2E4E2E8            1194          DC    CL0004'BUSY'
002C4E  0016                1195          DC    A(0022)
002C50  C3D6D4D4C1D5C440D   1196          DC    CL0022'COMMAND NOT ACCEPTABLE'
002C66  001C                1197          DC    A(0028)
002C68  D9C5D7D3C1C3C540F   1198          DC    CL0028'REPLACE 4962 ATTACHMENT CARD'
002C84                      1199 F00280   EQU   *
002C84  0002                1200          DC    AL2(0002)
002C86  0016                1201          DC    A(0022)
002C88  C9D5E3C5D9C6C1C3C   1202          DC    CL0022'INTERFACE PARITY EPROR'
002C9E  001C                1203          DC    A(0028)
002CA0  D9C5D7D3C1C3C540F   1204          DC    CL0028'REPLACE 4962 ATTACHMENT CARD'
002CBC                      1205 F00302   EQU   *
002CBC  0003                1206          DC    AL2(0003)
002CBE  000E                1207          DC    A(0014)
002CC0  C3D6D4D4C1D5C440D   1208          DC    CL0014'COMMAND REJECT'
002CCE  0016                1209          DC    A(0022)
002CD0  D5D6E340C9D540C4C   1210          DC    CL0022'NOT IN DIAGNOSTIC MODE'
002CE6  001C                1211          DC    A(0028)
002CE8  D9C5D7D3C1C3C540F   1212          DC    CL0028'REPLACE 4962 ATTACHMENT CARD'
002D04                      1213 F00299   EQU   *
002D04  0002                1214          DC    AL2(0002)
002D06  0016                1215          DC    A(0022)
002D08  C9D5E3C5D9C6C1C3C   1216          DC    CL0022'INTERFACE PARITY EPROP'
002D1E  001C                1217          DC    A(0028)
002D20  D9C5D7D3C1C3C540F   1218          DC    CL0028'REPLACE 4962 ATTACHMENT CARD'
002D3C                      1219 F00314   EQU   *
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 LOCTR  OBJECT TEXT        STMT SOURCE STATEMENT                                   COPYRIGHT IBM CORP 1976
002D3C  0001              1220           DC    AL2(0001)
002D3E  0012              1221           DC    A(0018)
002D40  7D7DD5D67D7D40C9E 1222           DC    CL0018'''''NO''''' IS NOT VALID.'
002D52                    1223 F00323    EQU   *
002D52  0002              1224           DC    AL2(0002)
002D54  002C              1225           DC    A(0044)
002D56  C9D5E2E3C1D3D340F 1226           DC    CL0044'INSTALL 4962 CABLES ON ATTACHMENT CARD. RUN '
002D82  0018              1227           DC    A(0024)
002D84  D4C1D7F7F8F0F140C 1228           DC    CL0024'MAP7801 FOR MORE TESTING'
                          1229     HDIT  DC    0000
002D9C  0000              1231+OPTN1 DC    X'0000'                 PROGRAM OPTION CONTPOL WOPD 1
                          1232+*
002D9E  0000              1233+OPTN2 DC    X'0000'                 PROGRAM OPTION CONTPOL WOPD 2
                          1234+*                    BIT    HEX
000010                    1235+B48   EQU   16       0      8       PPOBLEM PROGRAM CONTROL BITS
000011                    1236+B49   EQU   17       1      4       *
000012                    1237+B50   EQU   18       2      2       * THESE BITS ARE USED WITH THE
000013                    1238+B51   EQU   19       3      1       * SECOND OPTION WD   AND ARE TO
000014                    1239+B52   EQU   20       4      8       * BE ASSIGNED BY EACH PROGRAMMER
000015                    1240+B53   EQU   21       5      4       *
000016                    1241+B54   EQU   22       6      2       *
000017                    1242+B55   EQU   23       7      1       *
000018                    1243+B56   EQU   24       8      8       *
000019                    1244+B57   EQU   25       9      4       *
00001A                    1245+B58   EQU   26       10     2       *
00001B                    1246+B59   EQU   27       11     1       *
00001C                    1247+B60   EQU   28       12     8       *
00001D                    1248+B61   EQU   29       13     4       *
00001E                    1249+B62   EQU   30       14     2       *
00001F                    1250+B63   EQU   31       15     1       *
00001E                    1251+CH    EQU   30       14     2       CHARACTER SUPPLIED
00001F                    1252+CMP   EQU   31       15     1       COMPARE OPERATION
002DA0  0000              1254+OPTN3 DC    X'0000'                 PROGRAM OPTION CONTROL WORD 3
                          1255+*
                          1256+*  0  MYSTERY INTERRUPT    MI        8  CS STATUS IN PROGRESS    CS
                          1257+*  1  ERROR INTEPRUPT      ER        9  CS AVAILABLE             CSA
                          1258+*  2  EXPECTED INIERRUPT   XI       10  CS STATUS INTEPRUPT EPP  CE
                          1259+*  3  INTERRUPT RECEIVED   IN       11  ISB BITS ON (1-7)        ISBON
                          1260+*
                          1261+*  4  EXPECTED ERP/ATTENT  XE       12  TEST UNIT RESULTS VOID   NG
                          1262+*  5  HARD ERROR FOUND     HE       13  OIO CC ERROR             IOCC
                          1263+*  6  WRONG INTR LEVEL     $LE      14  NO INTERRUPT             NOIN
                          1264+*  7  NO INTR EXPECTED     NI       15  INTEPRUPT CC ERROP       INCC
                          1265+*                    BIT    HEX
000020                    1266+MI    EQU   32       0      8       MYSTERY INTERRUPT HAPPENED
000021                    1267+ER    EQU   33       1      4       ERROP RECEIVED ON INTEPRUPT
000022                    1268+XI    EQU   34       2      2       EXPECTED INTERRUPT CONTROL BIT
000023                    1269+IN    EQU   35       3      1       INTEPRUPT RECEIVED CONTROL BIT
000024                    1270+XE    EQU   36       4      8       EXPECTED ERROR RESPONSE
000025                    1271+HE    EQU   37       5      4       HARD ERROR, 8 RETRIES
000026                    1272+$LE   EQU   38       6      2       INTEFRUPT ON WRONG LEVEL ERROR
000027                    1273+NI    EQU   39       7      1       NO INTERRUPT EXPECTED E
000028                    1274+CS    EQU   40       8      8       CYCLE STATUS IN PROGRESS
000029                    1275+CSA   EQU   41       9      4       CYCLE STEAL AVAILABLE
00002A                    1276+CE    EQU   42       10     2       CYCLE STEAL STATUS INERRUPT ERROR
00002B                    1277+ISBON EQU   43       11     1       ISB BITS ON (1-7)
00002C                    1278+NG    EQU   44       12     8       TEST UNIT RESULTS NO GOOD
00002D                    1279+IOCC  EQU   45       13     4       OIO CC ERROR
00002E                    1280+NOIN  EQU   46       14     2       NO INTERRUPT
00002F                    1281+INCC  EQU   47       15     1       INTERRUPT CC ERROR
                          1282+*
                          1283+*     COMMON BUFFER FOR PRINTING DATA
                          1284+*
002DA2  0000              1286+$TUID DC    A(*-*)                  TEST UNIT IDENTIFICATION
002DA4  0000              1287+$IOIN DC    A(*-*)                  I/O AND INTP CONDITION CODES
002DA6  0000              1288+$ISB  DC    A(*-*)                  R7, INTR STATUS BYTE & DEV ADPS
002DA8  0000              1289+LSTIO DC    A(*-*)                  ADRS OF LAST I/O + 4 BYTES
002DAA  0000              1290+DEV1  DC    A(*-*)                  DEVICE DEPENDENT DATA
002DAC  0000              1291+DEV2  DC    A(*-*)                  *
002DAE  0000              1292+DEV3  DC    A(*-*)                  *
002DB0  0000              1293+DEV4  DC    A(*-*)                  *
002DAA                    1294+SCTID EQU   DEV1                    READ ID BUFFER FOR IBIS & TERN
002DB2                    1295+DCBUF EQU   *                       DCB BUFFER FOP LAST DCB USED
002DB2  0000              1296+DCB1  DC    A(*-*)                  LAST DCB TABLE, CONTROL WOPD
002DB4  0000              1297+DCB2  DC    A(*-*)                  LAST DCB TABLE, DEV DEP WORD
002DB6  0000              1298+DCB3  DC    A(*-*)                  LAST DCB TABLE, DEV DEP WORD
002DB8  0000              1299+DCB4  DC    A(*-*)                  LAST DCB TABLE, DEV DEP WORD
002DBA  0000              1300+DCB5  DC    A(*-*)                  LAST DCB TABLE, DEV DEP WOPD
002DBC  0000              1301+DCB6  DC    A(*-*)                  LAST DCB TABLE, CHAIN ADRS
002DBE  0000              1302+DCB7  DC    A(*-*)                  LAST DCB TABLE, BYTE COUNT
002DC0  0000              1303+DCB8  DC    A(*-*)                  LAST DCB TABLE, BUFFER ADDRESS
                          1304+*
002DC2                    1305+CSPUF EQU   *                       CYCLE STEAL DATA BUFFER
002DC2  0000              1306+CSTL1 DC    A(*-*)                  CYCLE STEAL BUFFER, RESIDUAL ADRS
002DC4  0000              1307+CSTL2 DC    A(*-*)                  CYCLE STEAL WD 2, DEVICE DEPEND
002DC6  0000              1308+CSTL3 DC    A(*-*)                  CYCLE STEAL WD 3, DEVICE DEPEND
002DC8  0000              1309+CSTL4 DC    A(*-*)                  CYCLE STEAL WD 4, DEVICE DEPEND
002DCA  0000              1310+CSTL5 DC    A(*-*)                  CYCLE STEAL WD 5, DEVICE DEPEND
002DCC  0000              1311+CSTL6 DC    A(*-*)                  CYCLE STEAL WD 6, DEVICE DEPEND
002DCE  0000              1312+CSTL7 DC    A(*-*)                  CYCLE STEAL WD 7, DEVICE DEPEND
002DD0  0000              1313+CSTL8 DC    A(*-*)                  CYCLE STEAL WD 8, DEVICE DEPEND
                          1314+*
002DD2  0000              1315+$SUBN DC    A(*-*)                  LAST SUPROUTINE ADDRESS USED
002DD4  00000000          1316+$DATA DC    2A(*-*)                 OPTTONAL DATA
002DD8  0021              1317+$INTL DC    X'0021'                 INTERRUPT LEVEL REQUESTED
002DDA  0000              1318+TURTN DC    A(*-*)                  TEST UNIT RETURN ADRS TO MDI
002DDC  0000              1319+$DVID DC    X'0000'                 DEVICE ID
002DDE  1900              1320+SVCAL DC    A(DEVADD)               ADRS OF DEVICE ADDPESS
002DE0  0000              1321+      DC    A(*-*)                  IBIS CYLINDER ADDRESS
                          1322+*
                          1323+*     THIS TEST UNIT WILL PETURN TO MDI WITHOUT DOING ANY PROGRAM
                          1324+*     FUNCTION. THE RESULTS THAT WERE SET UP IN THE RESULTS AREA APE
                          1325+*     STILL VALID BUT A DIFFERENT TEST IS TO BE PERFORMED.
                          1326+*
002DE2  4020 2DA2 3C02    1327+T3C02 MVWI  X'3C02',$TUID             SET UP TEST UNIT ID
002DE8  5700              1328+      BXS   (R7)                      RETURN TO MDI SUPVR
                          1330           COPY  COMEQU
                          1331 ************************************************************
                          1332 *                                                          *
                          1333 *              EQUATED NAMES FOP SUPPORTED SVC'S           *
                          1334 *                                                          *
                          1335 ************************************************************
000000                    1336 OUT   EQU   0                       OUT SVC
000001                    1337 OUTIN EQU   1                       OUTIN SVC
```



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 LOCTR  OBJECT TEXT        STMT SOURCE STATEMENT                                   COPYRIGHT IBM CORP 1976
000002                    1338 IDLE  EQU   2                       IDLE SVC
000003                    1339 ASCII EQU   3                       HEX TO ASCII SVC
000004                    1340 CHNGE EQU   4                       CHANGE LEVEL SVC
000005                    1341 PGMCK EQU   5                       ALLOW RETURN ON PROGRAM CHECK SVC
000006                    1342 EXIT  EQU   6                       EXIT SVC
000007                    1343 TERM  EQU   7                       TERMINATE SVC
000008                    1344 RESET EQU   8                       RESET DEVICE SVC
000009                    1345 RID   EQU   9                       READ ID SVC
00000A                    1346 SPART EQU   10                      START CYCLE STEAL SVC
00000B                    1347 SPCSS EQU   11                      START CYCLE STEAL STATUS SVC
00000C                    1348 PREP  EQU   12                      PREPAPE DEVICE SVC
00000D                    1349 READ0 EQU   13                      PEAD WITH FUNCTION BIT 3 OFF SVC
00000E                    1350 READ1 EQU   14                      READ WITH FUNCTION BIT 3 ON SVC
00000F                    1351 RSTAT EQU   15                      READ STATUS SVC
000010                    1352 WRIT0 EQU   16                      WRITE WITH FUNCTION BIT 3 OFF SVC
000011                    1353 WRIT1 EQU   17                      WPITE WITH FUNCTION BIT 3 ON SVC
000012                    1354 CNTRL EQU   18                      CONTROI SVC
000013                    1355 RICB  EQU   19                      RELEASE INTERUPT CONTROL BLOCK SVC
000014                    1356 CICB  EQU   20                      CONNECT INTFRUPT CONTROL BLOCK SVC
000015                    1357 HIO   EQU   21                      HALT ALL I/O
000016                    1358 RECSD EQU   22                      REQUEST USE OF DCP DISK SVC
000017                    1359 RELSD EQU   23                      RELEASE USE OF DCP DISK SVC
000018                    1360 HALT  EQU   24                      HALT SVC
000019                    1361 ETOH  EQU   25                      EBCDIC TO HEX SVC (STPING)
00001A                    1362 HTOE  EQU   26                      HEX TO EBCDIC SVC (STRING)
00001B                    1363 ATOH  EQU   27                      ASCII TO HEX SVC (STRING)
00001C                    1364 HTOA  EQU   28                      HEX TO ASCII SVC (STPING)
00001D                    1365 ETOA  EQU   29                      EBCDIC TO ASCII SVC (STPING)
00001E                    1366 ATOE  EQU   30                      ASCII TO EBCDIC SVC (STRING)
00001F                    1367 READI EQU   31                      FEAD DATA SETS FOR MDI/UTIL
000020                    1368 WRITI EQU   32                      WRITE DATA SETS FOR UTIL
                          1370 ************************************************************
                          1371 *                                                          *
                          1372 *                EQUATES USED BY TU'S AS CONSTANTS         *
                          1373 *                                                          *
                          1374 ************************************************************
00004E                    1375 PLUS  EQU   C'+'                    PLUS CHAR
000060                    1376 MINUS EQU   C'-'                    MINUS CHAP
000000                    1378 ZERO  EQU   0
000001                    1379 ONE   EQU   1
000002                    1380 TWO   EQU   2
000003                    1381 THREE EQU   3
000004                    1382 FOUR  EQU   4
000005                    1383 FIVE  EQU   5
000006                    1384 SIX   EQU   6
000007                    1385 SEVEN EQU   7
000008                    1386 EIGHT EQU   8
000009                    1387 NINE  EQU   9
00000A                    1388 TEN   EQU   10
00000B                    1389 ELEVN EQU   11                                      11
00000C                    1390 TWELV EQU   12                                      12
00000D                    1391 THRTN EQU   13                                      13
00000F                    1392 FIVTN EQU   15                                      15
000010                    1393 SIXTN EQU   16                                      16
000020                    1394 THPY2 EQU   32                                      32
000040                    1395 SIXT4 EQU   64                                      64
000080                    1396 ONE28 EQU   128                                     128
000100                    1397 TWO56 EQU   256                                     256
000400                    1398 ONEK  EQU   1024                                    1024
000800                    1399 TWOK  EQU   2048                                    2048
000C00                    1400 THREK EQU   3072                                    3072
001000                    1401 FOURK EQU   4096                                    4096
FFFFFF                    1403 M1    EQU   -1                                      -1
FFFFFE                    1404 M2    EQU   -2                                      -2
FFFFFD                    1405 M3    EQU   -3                                      -3
FFFFFC                    1406 M4    EQU   -4                                      -4
                          1408 ************************************************************
                          1409 *                                                          *
                          1410 *     THE FOLLOWING APE EQUATES FOP BIT DISPLACEMENTS FROM THE *
                          1411 *     BEGINNING OF THE BYTE TO EACH BIT IN THE WORD OF SWITCHES. *
                          1412 *                                                          *
                          1413 ************************************************************
000000                    1414 BS0   EQU   0
000001                    1415 BS1   EQU   1
000002                    1416 BS2   EQU   2
000003                    1417 BS3   EQU   3
000004                    1418 BS4   EQU   4
000005                    1419 BS5   EQU   5
000006                    1420 BS6   EQU   6
000007                    1421 BS7   EQU   7
000008                    1422 BS8   EQU   8
000009                    1423 BS9   EQU   9
00000A                    1424 BS10  EQU   10
00000B                    1425 BS11  EQU   11
00000C                    1426 BS12  EQU   12
00000D                    1427 BS13  EQU   13
00000E                    1428 BS14  EQU   14
00000F                    1429 BS15  EQU   15
                          1431           COPY  T7800                      01DEC76
                          1432 T7800 TUIT  ,
                          1433+************************************************************06FEB76**
                          1434+*
                          1435+* TEST UNIT
                          1436+*
                          1437+*     DIRECT PROGRAM CONTROL TEST UNIT                          12/1/76
                          1438+*
                          1439+* PURPOSE
                          1440+*
                          1441+*     THPEE PAPAMETEPS APE NEEDED FOR THE EXECUTION OF THIS TU AND APE
                          1442+*     .
                          1443+*     1. ONE BYTE OF FUNCTION-MODIFIER,IE, X'60' FOR PREPARE
                          1444+*     2. TWO BYTES OF DATA TO BE USED IN THE SECOND PART OF THE IDCB,
                          1445+*     .  IE, X'0005' TO SELECT LEVEL 2 FOR AN INTERRUPT.
                          1446+*
                          1447+* CALLING SEQUENCE
                          1448+*
                          1449+*     MDI=@TUXX,T7800,2,0708,EQ,PLNG=6,PRAM=FFXXXX'
                          1450+*
                          1451+* RETURN CONTROL
                          1452+*
                          1453+*      B     TUPTN*                 RETUPN TO MDI SUPEPVISOR
                          1454+*
                          1455+************************************************************
002DEA  6F0D 2DDA         1456+T7800  MVW   P7,TUPTN               SAVE RETURN ADDRESS
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 LOCTR  OBJECT TEXT      STMT SOURCE STATEMENT                    COPYRIGHT IBM CORP 1976
002DEE  4020 2DA2 7800  1457+         MVWI  X'7800',$TUID         SAVE TU ID FOR DISPLAY
002DF4  4424 2D9C       1458+         MVA   OPTN1,R4             SET UP POINTER ADRS IN R4
                        1459+**
002DF8  4724 30D4       1460          MVA   INTBL,R7             SET R7 TO CONTROL BLOCK AND
002DFC  6014            1461          SVC   CICB                 * CONNECT IT TO THIS DEVICE
002DFE  4020 2DA4 0708  1462          MVWI  X'0708',$IOIN        INIT THE CONDITION CODES
002E04  6908 189A       1463          MVW   TUPARM1,R1           SET UP PARM ADRS
002E08  8118 2E58       1464          MVB   (R1)+,T3C00I         * AND SET IN FUNCTION-MODIFIER
002E0C  8028 19D0 2E59  1465          MVB   DEVADD,T3C00I+1      * FOLLOWED BY THE DEVICE ADRS
002E12  8118 2E5A       1466          MVB   (R1)+,T3C00I+2       * AND SET IN BYTE DATA
002E16  8118 2E5B       1467          MVB   (R1)+,T3C00I+3       * AND SET IN ODD BYTE DATA
002E1A  D020 2E58       1468          MVD   T3C00I,R0            GET FUNCTION, MODIFIER AND DEV ADRS
                        1469 *
002E1E  680C 2E58       1470          IO    T3C00I               ISSUE THE I/O COMMAND AND
002E22  70AE            1471          DC    X'70AE'              * GET THE I/O CONDITION CODE IN R5
002E24  356A            1472          SRL   13,R5                POSITION CC IN THE RESULTS FIELD
002E26  C528 2DA4       1473          MVB   R5,$IOIN             * AND SAVE IT IN THE RESULTS
002E2A  3062            1474          SRL   12,R0                * AND POSITION IT IN THE REG TO
002E2C  100D            1475          JZ    T3C00S               * SEND BACK THE RUSLTS IF READ DPC
002E2E  F002            1476          CBI   X'02',R0             IS IT A READ STATUS
002E30  1807            1477          JNE   T3C00N               * NO, CONTINUE TO CHECK
002E32  6A08 2E5A       1478          MVW   T3C00I+2,R2          * YES, GET ID RECEIVED AND
002E36  6A0B 19D4       1479          XW    DEVADD+4,R2          CHECK AGAINST SHOULD BE VALUE
002E3A  6A0D 18CA       1480          MVW   R2,TURESUL+2         AND SEND BACK THE RSULTS
002E3E  5007            1481          J     T3C00X
002E40  F001            1482 T3C00N   CBI   X'01',R0             IS IT A READ DPC COMMAND
002E42  1002            1483          JE    T3C00S               * YES, SEND RESULTS TO MDI
002E44  F00F            1484          CBI   X'0F',R0             * IF IT IS A READ ID FUNCTION
002E46  1803            1485          JNE   T3C00X               * NO, GO TO EXIT
                        1486 *
002E48  8828 2E5A 18CA  1487 T3C00S   MVW   T3C00I+2,TURESUL+2   SENT BACK DATA RECEIVED AND EXIT
002E4E  8828 2DA4 18C8  1488 T3C00X   MVW   $IOIN,TURESUL        PUT ANY INTR COND CODE FOUND IN
                        1489          TXIT                       * RESULTS AND EXIT
002E54  6802 316A       1490+         B     $CONX                RETURN TO MDI CONTROLLER
                        1491+*************************************************************************
                        1492 *
                        1493 *            IDCB FOR DIRECT PROGRAM CONTROL COMMAND
                        1494 *
002E58  0000            1495 T3C00I DC    X'0000'                FUNCTION-MODIFIER-DEVICE ADDRESS
002E5A  0000            1496        DC    X'0000'                IMMEDIATE DATA BUFFER
                        1497        COPY  T7805                    01DEC76
                        1498 T7805 TUIT   ,1
                        1499+*************************************************************06FEB76**
                        1500+*
                        1501+* TEST UNIT
                        1502+*
                        1503+*      DELAY COUNTER (2 SEC)                                  12/1/76
                        1504+*
                        1505+* PURPOSE
                        1506+*
                        1507+*      TO DELAY WHILE THE DEVICE IS DOING A PREVIOUS REQUESTED FUNCTION
                        1508+*
                        1509+* CALLING SEQUENCE
                        1510+*
                        1511+*      NO  TUPESULTS ARE PASSED BACK TO MDI.
                        1512+*
                        1513+* RETURN CONTROL
                        1514+*
                        1515+*       B      TURTN*                 RETURN TO MDI SUPERVISOR
                        1516+*
                        1517+*************************************************************************
002E5C  6F0D 2DDA       1518+T7805    MVW   R7,TURTN               SAVE RETURN ADDRESS
002E60  4020 2DA2 7805  1519+         MVWI  X'7805',$TUID          SAVE TU ID FOR DISPLAY
002E66  4424 2D9C       1520+         MVA   OPTN1,R4               SET UP POINTER ADRS IN R4
                        1521+*
002E6A  CA25 18C8       1522          MVWZ  TURESUL,R2             CLEAR TU RESULTS WORD
002E6E  4024 254C       1523          MVWI  X'254C',R0              INITIALIZE THE COUNT FOR 2 SEC
002E72  6002            1524 T777     SVC   IDLE                   TIME OUT 2 SEC
002E74  B8FE            1525          JCT   T777,R0                *
                        1526          TXIT
002E76  6802 316A       1527+         B     $CONX                  RETURN TO MDI CONTROLLER
                        1528+*************************************************************************
                        1529          COPY  T78DCB                   01DEC76
                        1530 ** (T78DCB)
                        1531 ***************************************************12/1/76***********
                        1532 *
                        1533 *      DCB TABLES AND DC'S
                        1534 *
                        1535 *************************************************************************
                        1536 *
                        1537 ***** DIAGNOSTIC DCB   ********
                        1538 *
002E7A  2008            1539 DGDCB DC     X'2008'                DIAGNOSTIC DCB
002E7C  0000            1540       DC     X'0000'                NOT USED
002E7E  0000            1541       DC     A(*-*)                 0-7 = PHYSICAL SECTOR # MINUS ONE
002E80  0000            1542       DC     X'0000'                NOT USED
002E82  0000            1543       DC     X'0000'                NOT USED
002E84  0000            1544       DC     A(*-*)                 CHAINING ADDRESS
002E86  0100            1545       DC     X'0100'                BYTE COUNT
002E88  0000            1546       DC     A(*-*)                 DATA ADDRESS
                        1547 *
                        1548 *
                        1549 ***** RECALIBRATE DCB  ********
                        1550 *
002E8A  0007            1551 CLDCB DC     X'0007'                RECALIBRATE DCB
002E8C  0000000000000000 1552      DC     7A(*-*)
                        1553 *
                        1554 ***** WRITE SECTOR ID  **
                        1555 *
002E9A  0002            1556 WSDCB  DC     X'0002'                WRITE SECTOR ID CONTROL WORD
002E9C  0000            1557       DC     X'0000'                NOT USED
002E9E  0000            1558       DC     A(*-*)                 0-7 = PHYSICAL SECTOF # MINUS ONE
002EA0  0000            1559       DC     A(*-*)                 NOT USED
002EA2  0000            1560       DC     A(*-*)                 NOT USED
002EA4  0000            1561       DC     A(*-*)                 CHAIN ADDRESS
002EA6  0006            1562       DC     X'0006'                BYTE COUNT
002EA8  2F60            1563       DC     A(WRSID)               ADDR OF SECTOR ID DATA
                        1564 ***** READ SECTOR ID DCB  *******
                        1565 *
002EAA  200A            1566 RSDCB DC     X'200A'                READ SECTOR ID
002EAC  0000            1567       DC     X'0000'                NOT USED
002EAE  0000            1568       DC     X'0000'                0-7 = PHYSICAL SECTOR # MINUS ONE
002EB0  0000            1569       DC     X'0000'                NOT USED
002EB2  0000            1570       DC     X'0000'                NOT USED
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 LOCTR  OBJECT TEXT      STMT SOURCE STATEMENT                    COPYRIGHT IBM CORP 1976
002EB4  0000            1571       DC     X'0000'                CHAIN ADDRESS
002EB6  0006            1572       DC     X'0006'                BYTE COUNT FOR READ SECTOR ID
002EB8  2DAA            1573       DC     A(SCTID)               SECTOR ID DATA ADDPESS
                        1574 *
                        1575 *
                        1576 ***** READ SECTOR ID IMMEDIATE DCB  *******
                        1577 *
002EBA  200E            1578 RIDCB DC     X'200E'                READ SECTOR ID
002EBC  0000            1579       DC     X'0000'                NOT USED
002EBE  0000            1580       DC     X'0000'                NOT USED
002EC0  0000            1581       DC     X'0000'                NOT USED
002EC2  0000            1582       DC     X'0000'                NOT USED
002EC4  0000            1383       DC     A(*-*)                 CHAIN ADDRESS
002EC6  0006            1584       DC     X'0006'                BYTE COUNT FOR READ SECTOR ID
002EC8  2DAA            1585       DC     A(SCTID)               SECTOR ID DATA ADDRESS
                        1586 *
                        1587 *
                        1588 ***** SEEK DCB  ********
                        1589 *
002ECA  0005            1590 SKDCB DC     X'0005'                SEEK DCB
002ECC  0000            1591       DC     X'0000'                BIT 0-3=0;BIT4=DIRECTION;5-15=DIFFER
002ECE  0000            1592       DC     F'0'
002ED0  0000            1593       DC     F'0'
002ED2  0000            1594       DC     X'0000'                0-7 = HEAD;8-15 NOT USED
002ED4  0000            1595       DC     A(*-*)                 CHAIN ADDRESS
002ED6  0000            1596       DC     F'0'                   NOT USED
002ED8  0000            1597       DC     F'0'                   NOT USED
                        1598 *
                        1599 ***** CYCLE STEAL STATUS DCB  ********
                        1600 *
002EDA  2000            1601 CSDCB DC     X'2000'                CONTROL WORD
002EDC  0000            1602       DC     F'0'                   NOT USED
002EDE  0000            1603       DC     F'0'                   NOT USED
002EE0  0000            1604       DC     F'0'                   NOT USED
002EE2  0000            1605       DC     F'0'                   NOT USED
002EE4  0000            1606       DC     F'0'                   NOT USED
002EE6  0008            1607       DC     X'0008'                4 WORDS OF STATS
002EE8  2DC2            1608       DC     A(CSBUF)               ADDRESS OF CYCLE STEAL STATUS DATA
                        1609 *
                        1610 ***** WRITE DCB  **********
                        1611 *
002EEA  0001            1612 WRDCB DC     X'0001'                WRITE CONTROL WORD
002EEC  0000            1613       DC     F'0'                   NOT USED
002EEE  0000            1614       DC     X'0000'                0-7=0;8-15 = FLAG BYTE
002EF0  0000            1615       DC     X'0000'                SERCH ARGUMENT CYLINDER
002EF2  0000            1616       DC     X'0000'                SEARCH ARGUMENT HEAD-SECTOR
002EF4  0000            1617       DC     A(*-*)                 CHAIN ADDRESS
002EF6  0000            1618       DC     F'0'                   BYTE COUNT
002EF8  0000            1619       DC     A(*-*)                 WRITE DATA ADDRESS
                        1620 *
                        1621 ***** VERIFY DCB   *******
                        1622 *
002EFA  200C            1623 VRDCB DC     X'200C'                CONTROL WORD
002EFC  0000            1624       DC     F'0'                   NOT USED
002EFE  0000            1625       DC     X'0000'                0-7=0;8-15 = FLAG BYTE
002F00  0000            1626       DC     X'0000'                CYLINDER
002F02  0000            1627       DC     X'0000'                HEAD - SECTOR
002F04  0000            1628       DC     A(*-*)                 CHAIN ADDRESS
002F06  0000            1629       DC     F'0'                   BYTE COUNT
002F08  0000            1630       DC     A(*-*)                VERIFY DATA ADDRESS
                        1631 *
                        1632 ***** READ DCB   *******
                        1633 *
002F0A  2009            1634 RDDCB DC     X'2009'                READ DCB CONTROL WOPD
002F0C  0000            1635       DC     F'0'                   NOT USED
002F0E  0000            1636       DC     X'0000'                0-7=0,8-15 = FLAG BYTE
002F10  0000            1637       DC     X'0000'                SEARCH ARGUMENT CYLINDER
002F12  0101            1638       DC     X'0101'                SEARCH ARGUMENT H-R
002F14  0000            1639       DC     A(*-*)                 CHAIN ADDRESS
002F16  0000            1640       DC     F'0'                   BYTE COUNT
002F18  0000            1641       DC     A(*-*)                 READ DATA ADDRESS
                        1642 *
                        1643 ****  WRITE SECTOR ID SKEWED   ****
                        1644 *
002F1A  0003            1645 WKDCB DC     X'0003'                CONTROL WORD
002F1C  0000            1646       DC     X'0000'                NOT USED
002F1E  0000            1647       DC     A(*-*)                 0-7 = PHYSICAL SECTOR # MINUS ONE
002F20  0000            1648       DC     A(*-*)                 NOT USED
002F22  0000            1649       DC     A(*-*)                 NOT USED
002F24  0000            1650       DC     A(*-*)                 CHAIN ADDRESS
002F26  0006            1651       DC     X'0006'                BYTE COUNT
002F28  2F60            1652       DC     A(WRSID)               ADDR OF SECTOR ID DATA
                        1653 *
                        1654 ****  READ SECTOR ID SKEWED    ****
                        1655 *
002F2A  200B            1656 RKDCB DC     X'200B'                CONTROL WORD
002F2C  0000            1657       DC     X'0000'                NOT USED
002F2E  0000            1658       DC     X'0000'                0-7 = PHYSICAL SECTOR # MINUS ONE
002F30  0000            1659       DC     X'0000'                NOT USED
002F32  0000            1660       DC     X'0000'                NOT USED
002F34  0000            1661       DC     A(*-*)                 CHAIN ADDRESS
002F36  0006            1662       DC     X'0006'                BYTE COUNT FOR READ SECTOR ID
002F38  2DAA            1663       DC     A(SCTID)               SECTOR ID DATA ADDRESS
                        1664 *
                        1665 *     CONSTANTS AND DEFINED STORAGE  LOCATIONS
002F3A  0000            1666 ZERO0 DC     X'0000'                CONSTANT ZERO
002F3C  0001            1667 ONE1  DC     X'0001'                CONSTANT ONE
002F3E  00000000        1668 TIMEOUT DC   2A(*-*)                TIMEOUT COUNTEP
002F42  0000            1669 TONE  DC     X'0000'                CONSTANT FOR ADD DOUBLE
002F44  0001            1670       DC     X'0001'                *
002F46  0500            1671 COUNT DC     F'1280'                BYTE COUNT (1280)
002F48  0000            1672 DIFF  DC     A(*-*)                 SEEK DIFFERENCE
002F4A  0000            1673 XXX   DC     A(*-*)                 WOPK WORD INT TO ZERO
002F4C  0000            1674 BCNT  DC     X'0000'                BYTE COUNT
002F4E  0000            1675 JOE   DC     A(*-*)                 WRITE PARAMETER POINTER
002F50  0000            1676 JOE1  DC     A(*-*)                 SAVE LOC FOR PAPM LIST ADDRESS
002F52  DBE6            1677 WDATA DC     X'DBE6'                WRITE DATA
002F54  6BED            1678       DC     X'6BED'                *
002F56  0000            1679 TABLE DC     A(*-*)                 ADDR OF WRT PAF LIST FOR FORMAT RTNS
002F58  0000            1680 LGSEC DC     X'0000'                LOGICAL SECTOR #
002F5A  0000            1681 PHYSC DC     X'0000'                CONVERTED PHYSICAL SEC #
002F5C  1D00            1682 CB29  DC     X'1D00'                CONSTANT BYTE 29
002F5E  3B00            1683 FIVE9 DC     X'3B00'                CONSTANT BYTE 59
002F60  0000            1684 WRSID DC     X'0000'                FLAG,CYLINDER (WRT SECTOR ID DATA)
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 LOCTR  OBJECT TEXT      STMT SOURCE STATEMENT                    COPYRIGHT IBM CORP 1976

002F52  0000            1685         DC    X'0000'              CYLINDER,HEAD
002F54  0000            1686         DC    X'0000'              LOG SECTOR,NOT USED
002F56  00FF            1687 CDAT    DC    X'00FF'              INVALID DATA CONSTANT
002F58  FF34            1688 WSIDT   DC    X'FF34'              WRITE SECTOR ID TEST DATA
002F5A  5678            1689         DC    X'5678'              *
002F5C  9A00            1690         DC    X'9A00'              *
002F5E  0000            1691 SCTST   DC    X'0000'              READ SECTOR ID TEST DATA BUFFER
002F70  0000            1692         DC    X'0000'
002F72  0000            1693         DC    X'0000'              *
002F74  0000            1694 CTR01   DC    X'0000'              COUNTER
002F76  0000            1695 CTR02   DC    X'0000'              COUNTER
002F78  0000            1696 CTR03   DC    X'0000'              COUNTER
002F7A  0000            1697 CTR04   DC    X'0000'              COUNTER
002F7C  0000            1698 CTR05   DC    X'0000'              COUNTER
002F7E  0000            1699 CTR06   DC    X'0000'              COUNTER
002F80  0000            1700 SAVR3   DC    X'0000'              SAVE AREA
002F82  0000            1701 SAVR5   DC    X'0000'              SAVE AREA
002F84  0000            1702 WR2     DC    X'0000'
002F86  0000            1703 SVSEK   DC    X'0000'
002F88  0000            1704 LCT     DC    X'0000'
002F8A  0000            1705 T56AA   DC    X'0000'
002F8C  0000            1706 T56BB   DC    X'0000'
002F8E  0000            1707 T56CC   DC    X'0000'
002F90  0000            1708 T56DD   DC    X'0000'
002F92  0000            1709 T56EE   DC    X'0000'
002F94  0000            1710 T56FF   DC    X'0000'
002F96  0000            1711 T56GG   DC    X'0000'
002F98  0000            1712 T86AA   DC    X'0000'
002F9A  0000            1713 T86BB   DC    X'0000'
002F9C  0000            1714 T86CC   DC    X'0000'
002F9E  0000            1715 T86DD   DC    X'0000'
002FA0  0000            1716 T86EE   DC    X'0000'
002FA2  0000            1717 T86FF   DC    X'0000'
002FA4  0000            1718 T86GG   DC    X'0000'
002FA6  0000            1719 T41D    DC    X'0000'
002FA8  0000            1720 T41LP   DC    X'0000'
002FAA  0000            1721 WRLCT   DC    X'0000'
002FAC  0000            1722 CYLOC   DC    X'0000'
002FAE  0000            1723 PASS1   DC    A(*-*)
002FB0  0000            1724 HEAD0   DC    A(*-*)
002FB2  0000            1725 HEAD1   DC    A(*-*)
002FB4  0000            1726 GDSEO   DC    A(*-*)
002FB6  0000            1727 GDSE1   DC    A(*-*)
002FB8  0000            1728 ER00    DC    A(*-*)
002FBA  0000            1729 ER01    DC    A(*-*)
002FBC  0000            1730 HD0SV   DC    A(*-*)
002FBE  0000            1731 HD1SV   DC    A(*-*)
002FC0  0000            1732 ER0SV   DC    A(*-*)
002FC2  0000            1733 ER1SV   DC    A(*-*)
002FC4  0000            1734 PATTF   DC    A(*-*)
002FC6  0000            1735 CECYL   DC    A(*-*)
002FC8  0000            1736 STATS   DC    A(*-*)
                        1737 *
                        1739         XEQIT                    01DEC76
                        1740+*************************************************29JUL76**
                        1741+*
                        1742+** SUB-ROUTINE
                        1743+*
                        1744+**     EXECUTE INPUT AND OUTPUT COMMANDS
                        1745+*
                        1746+** PURPOSE
                        1747+*
                        1748+**     TO EXECUTE ALL I/O COMMANDS FROM A COMMON PLACE.
                        1749+**     THIS SUBROUTINE WILL DO THE FOLLOWING FUNCTIONS:
                        1750+*
                        1751+**       1. SAVE THE ADDRESS THAT POINTS TO THE INSTRUCTION THAT STARTED
                        1752+**          THE I/O COMMAND.
                        1753+**       2. SAVES THE DCB BLOCK USED UNLESS IT IS A START CYCLE STATUS
                        1754+**          ISSUED BY THIS SUBROUTINE.
                        1755+**       3. CLEAR OUT THE CYCLE STEAL STATUS STORAGE UNLESS THE
                        1756+**          START CYCLE STATUS WAS ISSUED BY THIS SUBROUTINE.
                        1757+**       4. RESETS THE INTERRUPT INDICATOR AND CHECKS FOR ANY INTERRUPT
                        1758+**          SINCE THE LAST EXPECTED INTERRUPT. IF AN INTERRUPT IS FOUND,
                        1759+**          MYSTERY INTERRUPT (MI) CONTROL BIT IS SET.
                        1760+**       5. MOVES THE ADDRESS OF THE I/O CONTROL BLOCK IN R7. SET THE
                        1761+**          EXPECTED INTERRUPT CONTROL BIT AND ISSUE THE 'SVC  START'.
                        1762+**       6. WHEN THE SUPVR RETURNS AFTER ISSUING THE I/O COMMAND, TIMING
                        1763+**          STARTS TO DETERMINE A LOST INTERRUPT.
                        1764+**       7. EXCEPT THE INTERRUPT AND GATHER INFORMATION TO DETERMINE IF IT
                        1765+**          WAS AN ERROR OR OKAY AND EXIT OFF THE INTERRUPT LEVEL.
                        1766+**       8. CHECK IF THERE WAS A WRONG INTERRUPT LEVEL.
                        1767+**       9. CHECK IF AN ERROR WAS EXPECTED AND IF THERE WAS RETURN.
                        1768+**      10. CHECK IF THERE WAS AN ERROR CONDITION, IF NOT RETURN.
                        1769+**      11. CHECK TO SEE IF THE EXERCISER IS TO BE TERMINATED.
                        1770+**      12. CHECK IF A CYCLE STEAL OPERATION WAS IN PROGRESS THAT WAS
                        1771+**          ISSUED BY THIS SUBROUTINE.
                        1772+**      13. CHECK THE ISB BITS THAT ARE ON. IF BIT 0 IS ON, ISSUE A
                        1773+**          CYCLE STEAL STATUS COMMAND. CHECK FOR ANY OTHER BIT BEING ON,
                        1774+**          COUNT IT AND SET UP THE PROPER ERROR MESSAGE TO BE PRINTED.
                        1775+*
                        1776+** CALLING SEQUENCE
                        1777+*
                        1778+**     THIS ROUTINE HAS THE FOLLOWING ENTRIES:
                        1779+*
                        1780+** --> BAL   XIO         OR        XEQ ANY CYCLE STEAL COMMAND, MOD=0
                        1781+** --> BAL   XIO1                 MOD PARM PRELOADED IN 'IOMOD'
                        1782+** --> BAL   XIOCS,R6    OR        XEQ START CYCLE STEAL STATUS, MOD=F
                        1783+** --> BAL   XIOCS-4,R6           AUTO CS STATUS (FOLLOWING OTHER XIO
                        1784+**     .                         AND DOES NOT POST INTERRUPT STATUS)
                        1785+*
                        1786+** RETURN CONTROL
                        1787+*
                        1788+**     BXS   (R6,2)              RETURN TO USER NO ERROR
                        1789+** OR  B     (R6)*               RETURN AND RETRY ON ERROR
                        1790+*************************************************************
002FCA  CB25 30CE       1792+XIO    MVWZ  IOMOD,R3            SET MOF OF 0 FOR CYCLE STEAL OP
002FCE  500A            1793+       J     XIO1                CS I/O'S ARE NOT RETRIED
                        1794+*
002FD0  4CAA            1795+       TBTR  (R4,CE)             RESET CS STATUS INTER ERROR INDICAT.
002FD2  4C68            1796+       TBTS  (R4,CS)             SET 'CYCLE STEAL STATUS' IN PPOGRESS
002FD4  4020 30CC 2EDA  1797+XIOCS  MVA   CSDCB,IOPDCB        SET UP CONTROL BLOCK FOR SVC CALL
002FDA  4020 30CE 000F  1798+       MVWI  XIO00F',IOMOD       SET CYCLE STEAL MODIFIER
002FE0  4C28            1799+       TBT   (R4,CS)             IS CS IN PROGRESS, ERROR CONDITION
002FE2  1213            1800+       JON   XIO2                * YES, BYPASS SAVING I/O ADRS
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 LOCTR  OBJECT TEXT      STMT SOURCE STATEMENT                    COPYRIGHT IBM CORP 1976

002FE4  6E0D 2DA8       1801+XIO1   MVW   R6,LSTIO            SAVE IAR FOR RETRY IF REQUESTED
002FE8  4324 2DB2       1802+       MVA   DCBUF,R3            SET UP TO ADRS TO MOVE DCB TABLE
002FEC  6D08 30CC       1803+       MVW   IODCB,R5            * AND THE FROM ADRS, ALONG WITH
002FF0  0F10            1804+       MVBI  16,R7               * THE NUMBER OF MOVES
002FF2  2D64            1805+       MVFN  (R5),(R3)           MOVE 1 STATUS WORD AND ADJUST
002FF4  0BFF            1806+       MVBI  255,R3              CLEAR CYCLE STATUS BUFFER
002FF6  4524 2DC2       1807+       MVA   CSBUF,R5            *  TO ALL ONES  *
002FFA  0F10            1808+       MVBI  16,R7               *
002FFC  2BAC            1809+       FFN   R3,(R5)             *
002FFE  4020 2DA4 0708  1810+       MVWI  X'0708',$IOIN       OVERLAY OLD CONDITION CODES
003004  CB25 2DA6       1811+       MVWZ  $ISB,R3             ZERO OUT OLD ISB VALUE
                        1812+**
003008  4CA1            1813+       TBTR  (R4,ER)             RESET ANY ERROR BEFORE I/O COMMAND
00300A  4CA3            1814+XIO2   TBTR  (R4,IN)             CLEAR INTERRUPT RECEIVED CNTL BIT
00300C  4724 30C8       1815+       MVA   IOBLK,R7            SET UP CONTROL BLOCK FOR SUPVR
003010  4CA6            1816+       TBTR  (R4,SLE)            RESET LEVEL ERROR INDICATOR
003012  4C62            1817+       TBTS  (R4,XI)             SET EXPECTED INTR CONTROL BIT
003014  600A            1818+       SVC   START               CALL SUPVR FOR I/O COMMAND
                        1819+**
003016  4CA7            1820+       TBTR  (R4,NI)             IS AN INTR EXPECTED
003018  6AC0 0002       1821+       BN    (R6,2)              * NO, RETURN TO USER
                        1822+**
                        1823+**           THE INTR SHOULD OCCUR WHILE SPINNING IN THE NEXT SECTION
                        1824+**
00301C  0D00            1825+       MVBI  X'00',R5            SET UP WORK REG FOR 'LOST INTR'
00301E  4CA3            1826+XIO8   TBTR  (R4,IN)             HAS INTERRUPT BEEN RECEIVED
003020  1238            1827+       JON   XIOCK               * YES, CHECK IF ALL WAS SATISFACTORY
003022  6002            1828+       SVC   IDLE                ALLOW ANOTHER PROGRAM A CHANCE TO RUN
                        1829+**                               SUPVR WILL RETURN HERE
003024  7DA1 0001       1830+       AWI   1,R5                ADVANCE TIME OUT COUNT
00302B  18FA            1831+       JNZ   XIO8                BCH IF TIME OUT NOT REACHED
00302A  4C61            1832+       TBTS  (R4,ER)             SET ON ERROR CONTROL BIT
00302C  68D2 0000       1833+       B     (R6)*               ERR 'NO INTERRUPT'
                        1835+*************************************************03FEB76**
                        1836+*
                        1837+** SUBROUTINE
                        1838+**
                        1839+**     I/O EXECUTE ERROR HANDLING ROUTINE
                        1840+**
                        1841+** PURPOSE
                        1842+**
                        1843+**     THIS ROUTINE WILL COLLECT INFORMATION TO HELP DETERMINE THE
                        1844+**     PROBLEM THAT WAS FOUND WHEN THE I/O COMMAND WAS ISSUED BY THE
                        1845+**     SUPERVISOR AND IT WAS NOT ACCEPTED.
                        1846+**
                        1847+** CALLING SEQUENCE
                        1848+**
                        1849+**     SUPVR WILL ENTER WHEN AN ERROR OCCURS ON AN I/O COMMAND
                        1850+**
                        1851+** RETURN CONTROL
                        1852+**
                        1853+**     B     (R6)*               RETURN TO USERS ERROR HANDLER
                        1854+**
                        1855+*************************************************************
                        1856+*
                        1857+** CC        0= DEVICE NOT ATTACHED
                        1858+** FOR       1= DEVICE BUSY
                        1859+** I/O       2= DEVICE BUSY AFTER RESET
                        1860+**          3= COMMAND REJECT
                        1861+**          4= INTERVENTION REQUIRED
                        1862+**          5= INTERFACE DATA CHECK
                        1863+**          6= CONTROLLER BUSY
                        1864+**          7= I/O COMMAND EXCEPTED
                        1865+*
003030  706E            1866+XIOER  DC    X'706E'             COPY STATUS ANY LEVEL INTO R3
003032  336A            1867+       SRL   13,R3               POSITION CC CODE TO BITS 13-15
003034  C328 2DA4       1868+       MVB   R3,$IOIN            * PUT IN LOG OUT AREA
003038  68D2 0000       1869+       B     (R6)*               RETURN TO USER ERROR HANDLER
                        1871+*************************************************14APR76** IL
                        1872+*                                                          IL
                        1873+** SUB-ROUTINE                                            IL
                        1874+**                                                         IL
                        1875+**     ERROR INTERRUPT           RUNS ON INTERRUPT LEVEL 'SINTL'  IL
                        1876+**                                                         IL
                        1877+** PURPOSE                                                IL
                        1878+**                                                         IL
                        1879+**     THIS ROUTINE WILL BE ENTERED WHEN THE SUPVR DETECTS AN ERROR  IL
                        1880+**     OR THE INTERRUPTING CONDITION CODE DOES NOT AGREE WITH THE  IL
                        1881+**     EXPECTED CODE.                                      IL
                        1882+**                                                         IL
                        1883+** CALLING SEQUENCE                                       IL
                        1884+**                                                         IL
                        1885+**     SUPVR WILL ENTER WHEN AN ERROR OCCURS ON AN I/O INTERRUPT  IL
                        1886+**                                                         IL
                        1887+** RETURN CONTROL                                        IL
                        1888+**                                                         IL
                        1889+**     SVC   EXIT                RETURN TO USER VIA SUPVR  IL
                        1890+**                                                         IL
                        1891+*************************************************************IL
                        1892+*                                                          IL
                        1893+** CC        0= CONTROLLER END                 ISB   0= ADD STATUS   IL
                        1894+** FOR       1= PROGRAM CONTROL INTERRUPT      BITS  1= COMD REJECT  IL
                        1895+** INTR      2= EXCEPTION INTERRUPT            FOR   2= INCOR LENGTH IL
                        1896+**          3= DEVICE END INTERRUPT           INTR  3= DCB SPEC CK  IL
                        1897+**          4= ATTENTION INTERRUPT                  4= STG DATA CK  IL
                        1898+**          5= ATTENTION / PROGRAM CNTL INTR        5= INV STG ADRS IL
                        1899+**          6= ATTENTION / EXCEPTION INTR           6= PROTRCT CK   IL
                        1900+**          7= ATTENTION / DEVICE END INTR          7= I-FACE DATA  IL
                        1901+**                                                         IL
003030  706E            1902+INTER  DC    X'706E'             COPY STATUS ANY LEVEL INTO R3  IL
003032  336A            1903+       SRL   13,R3               POSITION INDICATORS IN R3  IL
003034  4424 2D9C       1904+       MVA   OPTN1,R4            SET UP BASE ADRS          IL
003044  4C28            1905+       TBT   (R4,CS)             IS CS IN PROGRESS         IL
003046  1006            1906+       JOFF  INTES               * NO                      IL
003048  4C6A            1907+       TBTS  (R4,CE)             TURN ON CYCLE STEAL INTER ERROR  IL
00304A  6F0D 2DD0       1908+       MVW   R7,CSTL8            SAVE CS ERR ISB VALUE, BITS 0-7  IL
00304E  C328 2DD1       1909+       MVB   R3,CSTL8+1          * AND THE COND CODE       IL
003052  500A            1910+       J     INTR1               IL
003054  4C24            1911+INTES  TBT   (R4,XE)             TEST  EXPECTED ATTEN / ERROR IND  IL
003056  1002            1912+       JOFF  INTET               BCH IF NOT EXPECTED       IL
003058  F304            1913+       CBI   4,R3                IS THIS AN 'ATTENTION' INTR  IL
00305A  1006            1914+       JE    INTR1               * YES, BCH TO END INTR SEQUENCE  IL
00305C  4C61            1915+INTET  TBTS  (R4,ER)             SET ERROR ON I/O COMMAND CNTL BIT  IL
00305E  5004            1916+       J     INTR1               IL
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 LOCTR  OBJECT TEXT      STMT SOURCE STATEMENT                                  COPYRIGHT IBM CORP 1976
                         1917+*                                THE EPROR INTERPRUPT USES THE SAME  IL
                         1918+*                                ENDING SEQUENCE AS THE NORMAL INTP IL
                         1920+*****************************************************14APR76IL
                         1921+*                                                                   IL
                         1922+* SOUBROUTINE                                                      IL
                         1923+*                                                                   IL
                         1924+*     OKAY  INTEPPUPT            RUNS ON INTEPRUPT LEVEL '$INTL'  IL
                         1925+*                                                                   IL
                         1926+* PURPOSE                                                         IL
                         1927+*                                                                   IL
                         1928+*     TO CHECK THE INTERRUPT AND CONTINUE THE TEST                  IL
                         1929+*                                                                   IL
                         1930+* CALLING SEQUENCE                                                IL
                         1931+*                                                                   IL
                         1932+*     SUPERVISOP WILL ENTER HERE  IF INTR CC IS AS REQUESFED        IL
                         1933+*     THE EPROR INTERRUPT HANDLER WILL BRANCH TO THIS POUTINE       IL
                         1934+*     AFTER THE SPECIAL PART HAS BEEN COMPLETED  AND THE            IL
                         1935+*     COMMON SECTION IS HANDLED HERE.                               IL
                         1936+*                                                                   IL
                         1937+* RETURN CONTROL                                                   IL
                         1938+*                                                                   IL
                         1939+*     SVC   EXIT                 PETURN TO USEP VIA SUPVP       IL
                         1940+*                                                                   IL
                         1941+*****************************************************************IL
 003060  706E            1942+INTOK DC    X'706E'              COPY STATUS ANY LEVEL INTO P3  IL
 003062  336A            1943+      SRL   13,P3                POSITION INDICATORS IN R3      IL
 003064  4424 2D9C       1944+      MVA   OPTN1,R4             SET UP BASE ADPS               IL
 003068  4C63            1945+INTR1 TBTS  (R4,IN)              SET   INTERRUPT RECEIVED       IL
 00306A  4C28            1946+      TBT   (R4,CS)              IS '$CS IN PROGRESS' ON        IL
 00306C  1204            1947+      JON   INTP2                * YPS, BCH ARGUND UPDATE       IL
 00306E  C328 2DA5       1948+      MVB   R3,$IOIN+1           SAVE INTERRUPTING CC CODE      IL
 003072  6F0D 2DA6       1949+      MVW   R7,$ISE              SAVE INTR STATUS AND DEV ADRS  IL
 003076                  1950+INTP2 EQU   *                                                    IL
 003076  3521            1951+*     CPCL  P5                   CUPPENT LEVEL COPIED BY DCP    IL
 003078  0501            1952+      SLL   4,R5                 POSITION INTR LEVEL AND PUT    IL
 00307A  CD24 2DD8       1953+      ABI   1,R5                 * IN '1' BIT                   IL
 00307E  1002            1954+      CW    $INTL,R5             IS THIS THE CORRECT INTP LEVEL IL
                         1955+      JE    INTR3                * YES, GO EXIT THIS LEVEL      IL
 003080  4C66            1956+      TBTS  (R4,$LE)             SET INTP LEVEL EPROR CONTROL BIT IL
 003082  4C61            1957+      TBTS  (R4,EP)              SET EPROP ON I/O COMMAND CNTL BIT IL
 003084  4CA2            1958+INTR3 TBTR  (R4,XI)              WAS INTERRUPT EXPECTED         IL
 003086  1204            1959+      JON   INTPX                * YES, EXIT OFF THIS INTR LEVEL IL
 003088  4C60            1960+      TBTS  (R4,MI)              * NO, SET MYSTERY INTP CONTPOL BIT IL
 00308A  F304            1961+      CBI   4,R3                 ATTENTION INTERRUPT?           IL
 00308C  1001            1962+      JE    INTPX                YES                            IL
 00308E  4C6C            1963+      TBTS  (R4,NG)              ERROR,UNEXPECTED INTERPUPT     IL
 003090  6006            1964+INTRX SVC   EXIT                 EXIT THIS LEVEL VIA SUPVR TO PGM  IL
                         1966+*****************************************************03FEB76**
                         1967+*
                         1968+*     THIS IS THE CONTINUATION OF EXECUTE I/O AFTER THE INTERRUPT
                         1969+*     HAS BEEN SERVICED. THE EXEPCISER FINDS AN INTEPRUPT HAS BEEN
                         1970+*     RECEIVED AND BRANCHES HEPE TO CHECK FOR ANY ERROP CONDITIONS.
                         1971+*
                         1972+*
 003092  4CA4            1973+XIOCK TBTR  (R4,XE)              WAS AN ERROR EXPECTED
 003094  6AC0 0002       1974+      BN    (R6,2)              * YES, EXIT THIS ROUTINE
 003098  4CA8            1975+      TBTP  (R4,CS)             WAS AUTO CS IN PROGRESS
 00309A  1006            1976+      JOFF  XIOCV               * NO, CONTINUE CHECKING
 00309C  4C2A            1977+      TBT   (R4,CE)             IS CS IN AN ERR CONDITION
 00309E  1002            1978+      JOFF  XIOCO               * NO, BCH
 0030A0  68D2 0000       1979+      B     (R6)*               CS EPROF
 0030A4  4C69            1980+XIOCO TBTS  (R4,CSA)            TURN ON CS STATS AVAIL FLAG
 0030A6  5601            1981+      BXS   (R6,2)              GO TO USEP
 0030A8  4C21            1982+XIOCV TBT   (R4,EP)             WAS EPROP INTR CONTROL BIT ON
 0030AA  100B            1983+      JOFF  XIOCX               * NO, EXIT THIS ROUTINE
                         1984+*
 0030AC  C520 2DA5       1985+      MVB   $IOIN+1,R5          GET LAST INTR CC CODE
 0030B0  F502            1986+      CBI   2,R5                IS THIS CC=2
 0030B2  68D1 0000       1987+      BNE   (R6)*               * NO, BCH TO ERROR HANDLER
 0030B6  C520 2DA6       1988+XIOCQ MVB   $ISB,R5             GET LAST ISB DATA BYTE AND IF CS
 0030BA  6A00 2FD0       1989+      BN    XIOCS-4             * AVAILABLE, GO AND GET IT
 0030BE  68D2 0000       1990+      B     (R6)*               EPROR
 0030C2  CB25 2DA0       1991+XIOCX MVWZ  OPTN3,R3            CLEAR OUT OPTION 3 CNTL BITS
 0030C6  5601            1992+      BXS   (R6,2)              FETUPN TO USEP VIA PEG 6
                         1993+*
                         1994+*           I/O   PARAMETER LIST
                         1995+*
 0030C8  19D0            1996+IOBLK DC    A(DEVADD)           ADRS OF DEVICE ADPS
 0030CA  3030            1997+      DC    A(XIOER)            ERROR ROUTINE ADRS
 0030CC  0000            1998+IODCB DC    A(*-*)              DCB ADPS OF LEVEL & INTR
 0030CE  0000            1999+IOMOD DC    A(*-*)              MODTFIER
 0030D0  0000            2000+      DC    A(*-*)              ADRS OF LAST SVC CALL
 0030D2  0000            2001+IORSP DC    A(*-*)              SECOND WORD OF LAST IDCB
                         2002+*
                         2003+*           INTEPRUPT CONTROL BLOCK FOR I/O COMMANDS
                         2004+*
 0030D4  19D0            2005+INTBL DC    A(DEVADD)           ADPS OF DEVICE ADPS
 0030D6  3060            2006+      DC    A(INTOK)            INTERRUPT OK RETURN ADRS
 0030D8  303C            2007+      DC    A(INTEP)            INTERRUPT ERROR ADRS
 0030DA  0003            2008+INTCC DC    X'0003'             INTERRUPT CODE EXPECTED
                         2010+*****************************************************11MAY76**
                         2011+*
                         2012+* SUBPOUTINE
                         2013+*
                         2014+*     CONNECT INTEPRUPT CONTROI BLOCK & PREPARE DEVICE
                         2015+*
                         2016+* PURPOSE
                         2017+*
                         2018+*     TO CONNECT THE INTEPRUPT CONTROL BLOCK TO THIS DEVICE AND
                         2019+*     PREPARE ON THE DESIRED INTERRUPT LEVEL AND TO ALLOW THE DEVICE
                         2020+*     TO INTEPRUPT.
                         2021+*
                         2022+* CALLING SEQUENCE
                         2023+*
                         2024+*     THIS SUBROUTINE HAS THE FOLLOWING ENTRIES:
                         2025+*
                         2026+*  --> BAL   $CONC,P6             CLEAR DEV DEP STG AND CONNECT I/O BLK
                         2027+*  --> BAL   $CONP,R6             PPEPARE DEVICE ONLY, ALREADY CONNECT
                         2028+*
                         2029+* RETUPN CONTPOL
                         2030+*
                         2031+*     BXS   (R6,2)               RETURN TO USER VIA REG 6 IF OKAY
                         2032+*  OR B     (R6)*                IF THE DEVICE COULD NOT BE CONNECTED
                         2033+*
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 LOCTR  OBJECT TEXT      STMT SOURCE STATEMENT                                  COPYRIGHT IBM CORP 1976
                         2034+*****************************************************************
 0030DC  0F06            2035+$CONC MVBI  6,P7                 NUMPER OF FYTE TO CLEAP
 0030DE  0B00            2036+      MVBI  0,R3                 * AND THE DATA TO USE
 0030E0  4524 2DAA       2037+      MVA   DEV1,P5              * ALONG WITH THE ADPS TO USE
 0030E4  2BAC            2038+      FFN   R3,(P5)              *
 0030E6  CB25 2DA0       2039+      MVWZ  OPTN3,R3             CLEAR OLD CONTROLS FOR NEW ROUTINE
 0030EA  4724 2DDE       2040+      MVA   SVCAL,P7             SET UP TO PEQUEST DCP SUPP DISK
 0030EE  6016            2041+      SVC   PEQSD                *
 0030F0  0FFF            2042+      MVBI  -1,P7                SFT UP DELAY FOR IBIS
 0030F2  BFFP            2043+      JCT   *,P7                 * AND DECPEMENT IT DOWN
 0030F4  4724 30D4       2044+      MVA   INTBL,R7             SET R7 TO CONTROL BLOCK AND
 0030F8  6014            2045+      SVC   CICP                 * CONNECT IT TO THIS DEVICE
 0030FA  6AD0 0000       2046+      BN    (R6)*                EPPOP RETURN TO USEP
                         2047+*
 0030FE  8828 2DD8 30CC  2048+$CONP MVW   $INTL,IODCB          PUT IN LEVEL & INTR PARAMETER
 003104  4724 30C8       2049+      MVA   IOBLK,P7             SET P7 TO CONTROL BLOCK TO PPEPAPE
 003108  4020 2DA4 0708  2050+      MVWI  X'0708',$IOIN        INITIALIZE CONDITION CODE STORAGE
 00310E  CB25 2DA6       2051+      MVWZ  $ISE,R3              * AND CLEAR OLD ISB VALUE
 003112  6E0D 2DA8       2052+      MVW   P6,LSTIO             SET UP ADDPESS THAT STAPTED LAST I/O
 003116  600C            2053+      SVC   PPEP                 * AND CALL ON SUPVP
 003118  5601            2054+      BXS   (R6,2)               RETURN TO USER
                         2056+*****************************************************06APR76**
                         2057+*
                         2058+* SUBROUTINE
                         2059+*
                         2060+*     DISCONNECT THE INTERRUPT CONTPOL BLOCK AND LOG ERROPS
                         2061+*
                         2062+* PUPPOSE
                         2063+*
                         2064+*     DISCONNECT THE INTERRUPT CONTROL BLOCK TO THIS DEVICE AND
                         2065+*     SET THE 'NO GOOD' CONTPOL BIT, THEN LOG THE DATA THAT HAS
                         2066+*     BEEN FOUND TO HELP THE OPERATOR DEFINE THE EPROR CONDITION.
                         2067+*
                         2068+* CALLING SEQUENCE
                         2069+*
                         2070+*     THIS SUBPOUTINE HAS THF FOLLOWING ENTRIES:
                         2071+*
                         2072+*  --> B     $ERP$               SET 'NG' BIT AND CONVERT DATA TO LOG
                         2073+*  --> B     $CONX               RETURN TO MDI SUPERVISOR TO TEST STS
                         2074+*
                         2075+* RETURN CONTROL
                         2076+*
                         2077+*     B     TUPTN*              PETURN TO MDI
                         2078+*  OR B     (R6)*               IF THE DEVICE COULD NOT BE CONNECTED
                         2079+*
                         2080+*****************************************************************
 00311A  4020 1818 8000  2081+$ERR$ MVWI   X'8000',TUSTATUS    SET ON 'NO GOOD' STATUS BIT
 003120  4724 3290       2082+      MVA    HEBLK,R7            GET ADRS OF CONTROL BLOCK
 003124  601A            2083+      SVC    HTOE                CONVEPT HEX TO EBC VIS DCP
 003126  0D03            2084+$PRNT MVBI   3,R5
 003128  4324 181A       2085+      MVA    TUWORK,R3           SET UP BUFFER STORAGE
 00312C  6B0D 3288       2086+      MVW    R3,BUFPT
 003130  4124 31B8       2087+      MVA    LINE1,R1
 003134  0F04            2088+      MVBI   4,P7
 003136  0E08            2089+      MVBI   8,R6
                         2090+MVBUF MVFN   (R3),(R1)
                         2091+      MVBI   4,R7
                         2092+      MVBI   X'40',R2
                         2093+      MVB    R2,(R1)+
                         2094+      JCT    MVBUF,R6
                         2095+      MVBI   8,P6
                         2096+      AWI    44,R1
                         2097+      JCT    MVBUF,R5
 00314A  4020 1802 F1F0  2098+      MVWI   PIDMSG10,PID+2
 003150  4020 19B8 328E  2099+      MVA    FAKETU,@DCADD1
 003156  4020 19BA 328A  2100+      MVA    DC2PT,@DCADD2
 00315C  4020 19C4 0080  2101+      OWI    BIT0080,SUPSTAT
 003162  4324 2DA2       2102+      MVA    $TUID,R3            SET UP BUFFER STORAGE
 003166  6F13 18BA       2103+      BAL    TUMSG#TR*,R7        GO TO MESSAGE WRITER
                         2104+*
 00316A                  2105+$CONX EQU    *
 00316A  8028 2DAB 2DE1  2106+      MVB    SCTID+1,SVCAL+3     SETUPP CURRENT CYLINDER NUM
 003170  4724 2DDE       2107+      MVA    SVCAL,R7            ADDP OF PELEASE PARM LIST
 003174  6017            2108+      SVC    RELSD               RELEASE CONTROL
 003176  C720 19D0       2109+      MVB    DEVADD,R7           GET DEVICE ADDRESS FROM MDI
 00317A  6013            2110+      SVC    RICB                PELEASE INTEPPUPT CONTROL BLOCK
 00317C  6812 2DDA       2111+      B      TURTN*              RETURN TO MDI SUPEPVISOR
                         2112+*
 003180  0007            2113+BEGIN  DC     A(0007)             NUMBEP OF LINES TO PRINT
 003182  0008            2114+      DC     A(0008)             LINE LENGTH = 8 CHAP
 003184  5C5C40C1C2D6D9E3 2115+      DC     C'** ABOFT'
 00318C  0028            2116+      DC     A(0040)             LINE LENGTH = 40 CHAR
 00318E  E3E4C9C440C9D6C9D 2117+    DC     C'TUID IOIN ISB  INST DEV1 DEV2 DEV3 DEV4 '
 0031B6  0028            2118+      DC     A(0040)             LINE LENGTH = 40 CHAP
 0031B8  4040404040404040404 2119+LINE1 DC  C'                                        '
 0031E0  0028            2120+      DC     A(0040)             LINE LENGTH = 40 CHAR
 0031E2  C3D5E3D340C4C3C2F 2121+    DC     C'CNTL DCB2 DCB3 DCB4 DCB5 CHAD BYCT ADPS '
 00320A  0028            2122+      DC     A(0040)             LINE LENGTH = 40 CHAR
 00320C  4040404040404040404 2123+LINE2 DC  C'                                        '
 003234  0028            2124+      DC     A(0040)             LINE LENGTH = 40 CHAR
 003236  D9E2C9C440C3E260F 2125+    DC     C'RSID CS-2 CS-3 CS-4 CS-5 CS-6 CS-7 CS-8 '
 00325E  0028            2126+      DC     A(0040)             LINE LENGTH = 40 CHAP
 003260  4040404040404040404 2127+LINE3 DC  C'                                        '
                         2128+*
 003288  0000            2129+BUFPT  DC     A(*-*)
 00328A  3180            2130+DC2PT  DC     A(BEGIN)
 00328C  0101            2131+FIXTU  DC     X'0101'
 00328E  0101            2132+FAKETU    DC  X'0101'
 00F1F0                  2133+PIDMSG10  EQU    X'F1F0'
 000080                  2134+BIT0080   EQU    X'0080'
                         2135+*
                         2136+*     DATA CONTROL BLOCK FOP CONVERTING HEX TO EBCDIC
                         2137+*
 003290  0030            2138+HEBLK  DC     A(48)               NUMBEP OF BYTES TO CONVERT
 003292  2DA2            2139+      DC     A($TUID)            FROM ADRS
 003294  181A            2140+      DC     A(TUWORK)           AND THE TO ADRS
 000000                  2141       END
```

DECLARED NAME ATTRIBUTES AND REFERENCES

```
    0  .R0.      ABSOLUTE. HEX VALUE(00000000)
                 1468  1474  1476  1482  1484  1523  1525
    0  .R1.      ABSOLUTE. HEX VALUE(00000001)
                 1463  1464  1466  1467  2087  2090  2093  2096
    0  .R2.      ABSOLUTE. HEX VALUE(00000002)
                 1478  1479  1480  1522  2092  2093
    0  .R3.      ABSOLUTE. HEX VALUE(00000003)
                 1792  1802  1805  1806  1809  1811  1867  1868  1903
                 1909  1913  1943  1948  1961  1991  2036  2038  2039
                 2051  2085  2086  2090  2102
    0  .R4.      ABSOLUTE. HEX VALUE(00000004)
                 1458  1520  1795  1796  1799  1813  1814  1816  1817
                 1820  1826  1832  1904  1905  1907  1911  1915  1944
                 1945  1946  1956  1957  1958  1960  1963  1973  1975
                 1977  1980  1982
    0  .R5.      ABSOLUTE. HEX VALUE(00000005)
                 1472  1473  1803  1805  1807  1809  1825  1830  1952
                 1953  1954  1985  1986  1988  2037  2038  2084  2097
    0  .P6.      ABSOLUTE. HEX VALUE(00000006)
                 1801  1821  1833  1869  1974  1979  1981  1987  1990
                 1992  2046  2052  2054  2089  2094  2095
    0  .P7.      ABSOLUTE. HEX VALUE(00000007)
                 1328  1456  1460  1518  1804  1808  1815  1908  1949
                 2035  2040  2042  2043  2044  2049  2082  2088  2091
                 2103  2107  2109
 2105  $CONX     ADDRESS. HEX LOCATION(0000316A) IN CSECT(I7808   ) LENGTH(1)
                 1490  1527
 1317  $INTL     ADDRESS. HEX LOCATION(00002DD8) IN CSECT(I7808   ) LENGTH(2)
                 1954  2048
 1287  $IOIN     ADDRESS. HEX LOCATION(00002DA4) IN CSECT(I7808   ) LENGTH(2)
                 1462  1473  1488  1810  1868  1948  1985  2050
 1288  $ISB      ADDRESS. HEX LOCATION(00002DA6) IN CSECT(I7808   ) LENGTH(2)
                 1811  1949  1988  2051
 1272  $LE       ABSOLUTE. HEX VALUE(00000026)
                 1816  1956
 1286  $TUID     ADDRESS. HEX LOCATION(00002DA2) IN CSECT(I7808   ) LENGTH(2)
                 1327  1457  1519  2102  2139
  102  @DCADD1   ADDRESS. HEX LOCATION(000019B8) IN CSECT(I7808   ) LENGTH(1)
                 2099
  103  @DCADD2   ADDRESS. HEX LOCATION(000019BA) IN CSECT(I7808   ) LENGTH(1)
                 2100
   39  @FIXT     ABSOLUTE. HEX VALUE(00000101)
                  582   585   648   651   654   657   660   675   690
                  705   732   735   762   765   792   795   810   825
                  840   855   870   899   926   929   956   959   998
                 1001  1004  1043  1046  1049  1064  1093  1096
   41  @GOTO     ABSOLUTE. HEX VALUE(00000200)
                  552
   46  @NVLD     ABSOLUTE. HEX VALUE(00000600)
                  885  1079
   38  @QUES     ABSOLUTE. HEX VALUE(00000100)
                  549
   45  @TUXX     ABSOLUTE. HEX VALUE(00000500)
                  558   570   588   600   612   624   636   663   678
                  693   708   720   738   750   768   780   798   813
                  828   843   858   873   887   902   914   932   944
                  962   974   986  1007  1019  1031  1052  1067  1081
 2113  BEGIN     ADDRESS. HEX LOCATION(00003180) IN CSECT(I7808   ) LENGTH(2)
                 2130
 2134  BIT0080   ABSOLUTE. HEX VALUE(00000080)
                 2101
 2129  BUFPT     ADDRESS. HEX LOCATION(00003288) IN CSECT(I7808   ) LENGTH(2)
                 2086
 1276  CE        ABSOLUTE. HEX VALUE(0000002A)
                 1795  1907  1977
 1356  CICB      ABSOLUTE. HEX VALUE(00000014)
                 1461  2045
 1274  CS        ABSOLUTE. HEX VALUE(00000028)
                 1796  1799  1905  1946  1975
 1275  CSA       ABSOLUTE. HEX VALUE(00000029)
                 1980
 1305  CSBUF     ADDRESS. HEX LOCATION(00002DC2) IN CSECT(I7808   ) LENGTH(1)
                 1608  1807
 1601  CSDCB     ADDRESS. HEX LOCATION(00002EDA) IN CSECT(I7808   ) LENGTH(2)
                 1797
 1313  CSTL8     ADDRESS. HEX LOCATION(00002DD0) IN CSECT(I7808   ) LENGTH(2)
                 1908  1909
 1295  DCBUF     ADDRESS. HEX LOCATION(00002DB2) IN CSECT(I7808   ) LENGTH(1)
                 1802
 2130  DC2PT     ADDRESS. HEX LOCATION(0000328A) IN CSECT(I7808   ) LENGTH(2)
                 2100
  105  DEVADD    ADDRESS. HEX LOCATION(000019D0) IN CSECT(I7808   ) LENGTH(1)
                 1320  1465  1479  1996  2005  2109
 1290  DEV1      ADDRESS. HEX LOCATION(00002DAA) IN CSECT(I7808   ) LENGTH(2)
                 1294  2037
   67  DUMMY     ABSOLUTE. HEX VALUE(00000000)
                  540  1098  1113
 1099  ENTPT     ADDRESS. HEX LOCATION(000029AE) IN CSECT(I7808   ) LENGTH(1)
                  198
   47  EQ        ABSOLUTE. HEX VALUE(00000000)
                  561   573   591   603   615   627   639   666   681
                  696   711   723   741   753   771   783   801   816
                  831   846   861   876   890   905   917   935   947
                  965   977   989  1010  1022  1034  1055  1070  1084
 1267  ER        ABSOLUTE. HEX VALUE(00000021)
                 1813  1832  1915  1957  1982
 1342  EXIT      ABSOLUTE. HEX VALUE(00000006)
                 1964
 2132  FAKETU    ADDRESS. HEX LOCATION(0000328E) IN CSECT(I7808   ) LENGTH(2)
                 2099
 1125  F00014    ADDRESS. HEX LOCATION(000029CE) IN CSECT(I7808   ) LENGTH(1)
                  583   586   655   676   691   706   733   763   793
                  811   826   841   856   871   900   927   957   999
                 1044  1065  1094
 1121  F00082    ADDRESS. HEX LOCATION(000029B8) IN CSECT(I7808   ) LENGTH(1)
                  553
 1129  F00113    ADDRESS. HEX LOCATION(000029EE) IN CSECT(I7808   ) LENGTH(1)
                  649
 1151  F00116    ADDRESS. HEX LOCATION(00002AE2) IN CSECT(I7808   ) LENGTH(1)
                  661
 1135  F00119    ADDRESS. HEX LOCATION(00002A28) IN CSECT(I7808   ) LENGTH(1)
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DECLARED NAME ATTRIBUTES AND REFERENCES

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                  652
 1145  F00125    ADDRESS. HEX LOCATION(00002AAA) IN CSECT(I7808   ) LENGTH(1)
                  658
 1157  F00162    ADDRESS. HEX LOCATION(00002B18) IN CSECT(I7808   ) LENGTH(1)
                  736
 1163  F00176    ADDRESS. HEX LOCATION(00002B50) IN CSECT(I7808   ) LENGTH(1)
                  766
 1169  F00190    ADDRESS. HEX LOCATION(00002B88) IN CSECT(I7808   ) LENGTH(1)
                  796
 1179  F00250    ADDRESS. HEX LOCATION(00002BD6) IN CSECT(I7808   ) LENGTH(1)
                  930
 1185  F00264    ADDRESS. HEX LOCATION(00002C0E) IN CSECT(I7808   ) LENGTH(1)
                  960
 1199  F00280    ADDRESS. HEX LOCATION(00002C84) IN CSECT(I7808   ) LENGTH(1)
                 1005
 1191  F00283    ADDRESS. HEX LOCATION(00002C46) IN CSECT(I7808   ) LENGTH(1)
                 1002
 1213  F00299    ADDRESS. HEX LOCATION(00002D04) IN CSECT(I7808   ) LENGTH(1)
                 1050
 1205  F00302    ADDRESS. HEX LOCATION(00002CBC) IN CSECT(I7808   ) LENGTH(1)
                 1047
 1223  F00323    ADDRESS. HEX LOCATION(00002D52) IN CSECT(I7808   ) LENGTH(1)
                 1097
 2138  HEBLK     ADDRESS. HEX LOCATION(00003290) IN CSECT(I7808   ) LENGTH(2)
                 2082
 1362  HTOE      ABSOLUTE. HEX VALUE(0000001A)
                 2083
 1338  IDLE      ABSOLUTE. HEX VALUE(00000002)
                 1524  1828
 1269  IN        ABSOLUTE. HEX VALUE(00000023)
                 1814  1826  1945
 2005  INTBL     ADDRESS. HEX LOCATION(000030D4) IN CSECT(I7808   ) LENGTH(2)
                 1460  2044
 1902  INTER     ADDRESS. HEX LOCATION(0000303C) IN CSECT(I7808   ) LENGTH(2)
                 2007
 1911  INTES     ADDRESS. HEX LOCATION(00003054) IN CSECT(I7808   ) LENGTH(2)
                 1906
 1915  INTET     ADDRESS. HEX LOCATION(0000305C) IN CSECT(I7808   ) LENGTH(2)
                 1912
 1942  INTOK     ADDRESS. HEX LOCATION(00003060) IN CSECT(I7808   ) LENGTH(2)
                 2006
   63  INTRNL    ABSOLUTE. HEX VALUE(00000000)
                  556
 1964  INTRX     ADDRESS. HEX LOCATION(00003090) IN CSECT(I7808   ) LENGTH(2)
                 1959  1962
 1945  INTR1     ADDRESS. HEX LOCATION(00003068) IN CSECT(I7808   ) LENGTH(2)
                 1910  1914  1916
 1950  INTR2     ADDRESS. HEX LOCATION(00003076) IN CSECT(I7808   ) LENGTH(1)
                 1947
 1958  INTR3     ADDRESS. HEX LOCATION(00003084) IN CSECT(I7808   ) LENGTH(2)
                 1955
 1996  IOBLK     ADDRESS. HEX LOCATION(000030C8) IN CSECT(I7808   ) LENGTH(2)
                 1815  2049
 1998  IODCB     ADDRESS. HEX LOCATION(000030CC) IN CSECT(I7808   ) LENGTH(2)
                 1797  1803  2048
 1999  IOMOD     ADDRESS. HEX LOCATION(000030CE) IN CSECT(I7808   ) LENGTH(2)
                 1792  1798
   37  I7808     CSECT. START(00002500) LENGTH(3478) ESDID(0)
                   37
 2119  LINE1     ADDRESS. HEX LOCATION(000031B8) IN CSECT(I7808   ) LENGTH(40)
                 2087
 1289  LSTIO     ADDRESS. HEX LOCATION(00002DA8) IN CSECT(I7808   ) LENGTH(2)
                 1801  2052
 1266  MI        ABSOLUTE. HEX VALUE(00000020)
                 1960
 2090  MVBUF     ADDRESS. HEX LOCATION(00003138) IN CSECT(I7808   ) LENGTH(2)
                 2094  2097
 1278  NG        ABSOLUTE. HEX VALUE(0000002C)
                 1963
 1273  NI        ABSOLUTE. HEX VALUE(00000027)
                 1820
  549  N00001    ADDRESS. HEX LOCATION(00002630) IN CSECT(I7808   ) LENGTH(2)
                  315  1109
  552  N00002    ADDRESS. HEX LOCATION(00002634) IN CSECT(I7808   ) LENGTH(2)
                  318
  558  N00003    ADDRESS. HEX LOCATION(00002640) IN CSECT(I7808   ) LENGTH(2)
                  321   550
  570  N00004    ADDRESS. HEX LOCATION(00002656) IN CSECT(I7808   ) LENGTH(2)
                  324
  582  N00005    ADDRESS. HEX LOCATION(00002668) IN CSECT(I7808   ) LENGTH(2)
                  327
  585  N00006    ADDRESS. HEX LOCATION(0000266C) IN CSECT(I7808   ) LENGTH(2)
                  330   571
  588  N00007    ADDRESS. HEX LOCATION(00002670) IN CSECT(I7808   ) LENGTH(2)
                  333   559
  600  N00008    ADDRESS. HEX LOCATION(00002688) IN CSECT(I7808   ) LENGTH(2)
                  336
  612  N00009    ADDRESS. HEX LOCATION(0000269A) IN CSECT(I7808   ) LENGTH(2)
                  339
  624  N00010    ADDRESS. HEX LOCATION(000026AC) IN CSECT(I7808   ) LENGTH(2)
                  342
  636  N00011    ADDRESS. HEX LOCATION(000026BE) IN CSECT(I7808   ) LENGTH(2)
                  345
  648  N00012    ADDRESS. HEX LOCATION(000026D6) IN CSECT(I7808   ) LENGTH(2)
                  348
  651  N00013    ADDRESS. HEX LOCATION(000026DA) IN CSECT(I7808   ) LENGTH(2)
                  351   637
  654  N00014    ADDRESS. HEX LOCATION(000026DE) IN CSECT(I7808   ) LENGTH(2)
                  354   625
  657  N00015    ADDRESS. HEX LOCATION(000026E2) IN CSECT(I7808   ) LENGTH(2)
                  357   613
  660  N00016    ADDRESS. HEX LOCATION(000026E6) IN CSECT(I7808   ) LENGTH(2)
                  360   601
  663  N00017    ADDRESS. HEX LOCATION(000026EA) IN CSECT(I7808   ) LENGTH(2)
                  363   589  1112
  675  N00018    ADDRESS. HEX LOCATION(00002700) IN CSECT(I7808   ) LENGTH(2)
                  366
  678  N00019    ADDRESS. HEX LOCATION(00002704) IN CSECT(I7808   ) LENGTH(2)
                  369   664
  690  N00020    ADDRESS. HEX LOCATION(0000271A) IN CSECT(I7808   ) LENGTH(2)
                  372
```

CROSS-REFERENCE LISTING

DECLARED	NAME	ATTRIBUTES AND REFERENCES
693	N00021	ADDRESS. HEX LOCATION(0000271E) IN CSECT(I7808) LENGTH(2) 375 679
705	N00022	ADDRESS. HEX LOCATION(00002734) IN CSECT(I7808) LENGTH(2) 378
708	N00023	ADDRESS. HEX LOCATION(00002738) IN CSECT(I7808) LENGTH(2) 381 694
720	N00024	ADDRESS. HEX LOCATION(0000274E) IN CSECT(I7808) LENGTH(2) 384
732	N00025	ADDRESS. HEX LOCATION(00002760) IN CSECT(I7808) LENGTH(2) 387
735	N00026	ADDRESS. HEX LOCATION(00002764) IN CSECT(I7808) LENGTH(2) 390 721
738	N00027	ADDRESS. HEX LOCATION(00002768) IN CSECT(I7808) LENGTH(2) 393 709
750	N00028	ADDRESS. HEX LOCATION(0000277E) IN CSECT(I7808) LENGTH(2) 396
762	N00029	ADDRESS. HEX LOCATION(00002790) IN CSECT(I7808) LENGTH(2) 399
765	N00030	ADDRESS. HEX LOCATION(00002794) IN CSECT(I7808) LENGTH(2) 402 751
768	N00031	ADDRESS. HEX LOCATION(00002798) IN CSECT(I7808) LENGTH(2) 405 739
780	N00032	ADDRESS. HEX LOCATION(000027AE) IN CSECT(I7808) LENGTH(2) 408
792	N00033	ADDRESS. HEX LOCATION(000027C0) IN CSECT(I7808) LENGTH(2) 411
795	N00034	ADDRESS. HEX LOCATION(000027C4) IN CSECT(I7808) LENGTH(2) 414 781
798	N00035	ADDRESS. HEX LOCATION(000027C8) IN CSECT(I7808) LENGTH(2) 417 769
810	N00036	ADDRESS. HEX LOCATION(000027DE) IN CSECT(I7808) LENGTH(2) 420
813	N00037	ADDRESS. HEX LOCATION(000027E2) IN CSECT(I7808) LENGTH(2) 423 799
825	N00038	ADDRESS. HEX LOCATION(000027F8) IN CSECT(I7808) LENGTH(2) 426
828	N00039	ADDRESS. HEX LOCATION(000027FC) IN CSECT(I7808) LENGTH(2) 429 814
840	N00040	ADDRESS. HEX LOCATION(00002812) IN CSECT(I7808) LENGTH(2) 432
843	N00041	ADDRESS. HEX LOCATION(00002816) IN CSECT(I7808) LENGTH(2) 435 829
855	N00042	ADDRESS. HEX LOCATION(00002828) IN CSECT(I7808) LENGTH(2) 438
858	N00043	ADDRESS. HEX LOCATION(0000282C) IN CSECT(I7808) LENGTH(2) 441 844
870	N00044	ADDRESS. HEX LOCATION(00002842) IN CSECT(I7808) LENGTH(2) 444
873	N00045	ADDRESS. HEX LOCATION(00002846) IN CSECT(I7808) LENGTH(2) 447 859
885	N00046	ADDRESS. HEX LOCATION(00002858) IN CSECT(I7808) LENGTH(2) 450
887	N00047	ADDRESS. HEX LOCATION(0000285A) IN CSECT(I7808) LENGTH(2) 453 874
899	N00048	ADDRESS. HEX LOCATION(00002870) IN CSECT(I7808) LENGTH(2) 456
902	N00049	ADDRESS. HEX LOCATION(00002874) IN CSECT(I7808) LENGTH(2) 459 888
914	N00050	ADDRESS. HEX LOCATION(0000288A) IN CSECT(I7808) LENGTH(2) 462
926	N00051	ADDRESS. HEX LOCATION(0000289C) IN CSECT(I7808) LENGTH(2) 465
929	N00052	ADDRESS. HEX LOCATION(000028A0) IN CSECT(I7808) LENGTH(2) 468 915
932	N00053	ADDRESS. HEX LOCATION(000028A4) IN CSECT(I7808) LENGTH(2) 471 903
944	N00054	ADDRESS. HEX LOCATION(000028BA) IN CSECT(I7808) LENGTH(2) 474
956	N00055	ADDRESS. HEX LOCATION(000028CC) IN CSECT(I7808) LENGTH(2) 477
959	N00056	ADDRESS. HEX LOCATION(000028D0) IN CSECT(I7808) LENGTH(2) 480 945
962	N00057	ADDRESS. HEX LOCATION(000028D4) IN CSECT(I7808) LENGTH(2) 483 933
974	N00058	ADDRESS. HEX LOCATION(000028EA) IN CSECT(I7808) LENGTH(2) 486
986	N00059	ADDRESS. HEX LOCATION(000028FC) IN CSECT(I7808) LENGTH(2) 489
998	N00060	ADDRESS. HEX LOCATION(0000290E) IN CSECT(I7808) LENGTH(2) 492
1001	N00061	ADDRESS. HEX LOCATION(00002912) IN CSECT(I7808) LENGTH(2) 495 987
1004	N00062	ADDRESS. HEX LOCATION(00002916) IN CSECT(I7808) LENGTH(2) 498 975
1007	N00063	ADDRESS. HEX LOCATION(0000291A) IN CSECT(I7808) LENGTH(2) 501 963
1019	N00064	ADDRESS. HEX LOCATION(00002930) IN CSECT(I7808) LENGTH(2) 504
1031	N00065	ADDRESS. HEX LOCATION(00002942) IN CSECT(I7808) LENGTH(2) 507
1043	N00066	ADDRESS. HEX LOCATION(00002954) IN CSECT(I7808) LENGTH(2) 510
1046	N00067	ADDRESS. HEX LOCATION(00002958) IN CSECT(I7808) LENGTH(2) 513 1032
1049	N00068	ADDRESS. HEX LOCATION(0000295C) IN CSECT(I7808) LENGTH(2) 516 1020
1052	N00069	ADDRESS. HEX LOCATION(00002960) IN CSECT(I7808) LENGTH(2) 519 1008
1064	N00070	ADDRESS. HEX LOCATION(00002976) IN CSECT(I7808) LENGTH(2) 522
1067	N00071	ADDRESS. HEX LOCATION(0000297A) IN CSECT(I7808) LENGTH(2) 525 1053
1079	N00072	ADDRESS. HEX LOCATION(0000298C) IN CSECT(I7808) LENGTH(2) 528
1081	N00073	ADDRESS. HEX LOCATION(0000298E) IN CSECT(I7808) LENGTH(2) 531 1068
1093	N00074	ADDRESS. HEX LOCATION(000029A4) IN CSECT(I7808) LENGTH(2) 534
1096	N00075	ADDRESS. HEX LOCATION(000029A8) IN CSECT(I7808) LENGTH(2) 537 1082
1231	OPTN1	ADDRESS. HEX LOCATION(00002D9C) IN CSECT(I7808) LENGTH(2)

CROSS-REFERENCE LISTING

DECLARED	NAME	ATTRIBUTES AND REFERENCES
		1458 1520 1904 1944
1254	OPTN3	ADDRESS. HEX LOCATION(00002DA0) IN CSECT(I7808) LENGTH(2) 1991 2039
101	PARMARA	ADDRESS. HEX LOCATION(0000196E) IN CSECT(I7808) LENGTH(1) 568 580 598 610 622 634 646 673 688 703 718 730 748 760 778 790 808 823 838 853 868 883 897 912 924 942 954 972 984 996 1017 1029 1041 1062 1077 1091
69	PID	ADDRESS. HEX LOCATION(00001800) IN CSECT(I7808) 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 2098
2133	PIDMSG10	ABSOLUTE. HEX VALUE(0000F1F0) 2098
1348	PREP	ABSOLUTE. HEX VALUE(0000000C) 2053
1359	RELSD	ABSOLUTE. HEX VALUE(00000017) 2108
1358	REQSD	ABSOLUTE. HEX VALUE(00000016) 2041
1355	PICB	ABSOLUTE. HEX VALUE(00000013) 2110
1294	SCTID	ADDRESS. HEX LOCATION(00002DAA) IN CSECT(I7808) LENGTH(2) 1573 1585 1663 2106
1346	STAPT	ABSOLUTE. HEX VALUE(0000000A) 1818
104	SUPSTAT	ADDRESS. HEX LOCATION(000019C4) IN CSECT(I7808) LENGTH(1) 2101
1320	SVCAL	ADDRESS. HEX LOCATION(00002DDE) IN CSECT(I7808) LENGTH(2) 2040 2106 2107
92	TUMSGWTR	ADDRESS. HEX LOCATION(000018BA) IN CSECT(I7808) LENGTH(1) 2103
76	TUPARM1	ADDRESS. HEX LOCATION(0000189A) IN CSECT(I7808) LENGTH(1) 1463
98	TURESUL	ADDRESS. HEX LOCATION(000018C8) IN CSECT(I7808) LENGTH(1) 1480 1487 1488 1522
1318	TURTN	ADDRESS. HEX LOCATION(00002DDA) IN CSECT(I7808) LENGTH(2) 1456 1518 2111
74	TUSTATUS	ADDRESS. HEX LOCATION(00001818) IN CSECT(I7808) LENGTH(1) 2081
75	TUWOPK	ADDRESS. HEX LOCATION(0000181A) IN CSECT(I7808) LENGTH(1) 2085 2140
1495	T3C00I	ADDRESS. HEX LOCATION(00002E58) IN CSECT(I7808) LENGTH(2) 1464 1465 1466 1467 1468 1470 1478 1487
1482	T3C00N	ADDRESS. HEX LOCATION(00002E40) IN CSECT(I7808) LENGTH(2) 1477
1487	T3C00S	ADDRESS. HEX LOCATION(00002E48) IN CSECT(I7808) LENGTH(6) 1475 1483
1488	T3C00X	ADDRESS. HEX LOCATION(00002E4E) IN CSECT(I7808) LENGTH(6) 1481 1485
1327	T3C02	ADDRESS. HEX LOCATION(00002DE2) IN CSECT(I7808) LENGTH(6) 572 602 614 626 722 752 782 845 916 946 976 988 1021 1033
1524	T777	ADDRESS. HEX LOCATION(00002E72) IN CSECT(I7808) LENGTH(2) 1525
1456	T7800	ADDRESS. HEX LOCATION(00002DEA) IN CSECT(I7808) LENGTH(4) 560 590 638 665 680 695 710 740 770 800 815 830 860 889 904 934 964 1009 1054 1083
1518	T7805	ADDRESS. HEX LOCATION(00002E5C) IN CSECT(I7808) LENGTH(4) 875 1069
1684	WRSID	ADDRESS. HEX LOCATION(00002F60) IN CSECT(I7808) LENGTH(2) 1563 1652
1270	XE	ABSOLUTE. HEX VALUE(00000024) 1911 1973
1268	XI	ABSOLUTE. HEX VALUE(00000022) 1817 1958
1973	XIOCK	ADDRESS. HEX LOCATION(00003092) IN CSECT(I7808) LENGTH(2) 1827
1980	XIOCO	ADDRESS. HEX LOCATION(000030A4) IN CSECT(I7808) LENGTH(2) 1978
1797	XIOCS	ADDRESS. HEX LOCATION(00002FD4) IN CSECT(I7808) LENGTH(6) 1989
1982	XIOCV	ADDRESS. HEX LOCATION(000030A8) IN CSECT(I7808) LENGTH(2) 1976
1991	XIOCX	ADDRESS. HEX LOCATION(000030C2) IN CSECT(I7808) LENGTH(4) 1983
1866	XIOER	ADDRESS. HEX LOCATION(00003030) IN CSECT(I7808) LENGTH(2) 1997
1801	XIO1	ADDRESS. HEX LOCATION(00002FE4) IN CSECT(I7808) LENGTH(4) 1793
1814	XIO2	ADDRESS. HEX LOCATION(0000300A) IN CSECT(I7808) LENGTH(2) 1800
1826	XIO8	ADDRESS. HEX LOCATION(0000301E) IN CSECT(I7808) LENGTH(2) 1831

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