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 LOCTR  OBJECT TEXT        STMT SOURCE STATEMENT                    COPYRIGHT IBM CORP 1976
                             3       COPY  LOG7A14                ** MAP EC HISTORY **
                             4 ********************************************************************
                             5 *                                                                  *
                             6 *                     ***       PREREQUISITES        ***           *
                             7 *                                                                  *
                             8 *                                NONE                              *
                             9 *                                                                  *
                            10 ********************************************************************
                            11 *                                                                  *
                            12 *                     ***       MODIFICATIONS        ***           *
                            13 *                                                                  *
                            14 *     CHANGES MADE TO CORRECT ERRORS FOUND WHILE IN TEST           *
                            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 17AUG78  DATE 02OCT78  DATE 10JAN79  DATE             *
                            33 *       E.C. 755391   E.C. 375102   E.C. 375222   E.C.              *
                            34 *                                                                  *
                            35 ********************************************************************
002500                      37 I7A14    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'        ADDRESS OF LENGTH OF TU RESULTS
0018C8                      98 TURESUL  EQU   PID+X'00C8'        ADDRESS OF TU RESULTS FIELD
0018FC                      99 MAPNAME  EQU   PID+X'00FC'        ADDRESS OF MAP NAME FIELD IN HEX
001948                     100 TUINPT   EQU   PID+X'0148'        ADDRESS OF $INPT DATA
00196E                     101 PARMARA  EQU   PID+X'016E'        ADDRESS OF $INPT INPUT AREA
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

 LOCTR  OBJECT TEXT        STMT SOURCE STATEMENT                    COPYRIGHT IBM CORP 1976
002500 2B8C                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 **
                           241 **                                                                **
                           242 **             $CALL                                              **
                           243 **                   A) RULE EQUATE X'0201'                       **
                           244 **                   B) ADDRESS OF MESSAGE                        **
                           245 **                   C) NAME OF MAP TO CALL                       **
                           246 **                   D) ENTRY POINT WITHIN CALLED MAP TO USE      **
                           247 **                   E) INDICATOR FOR EXTERNAL OR INTERNAL REFERENCE **
                           248 **                                                                **
                           249 **             $INPT                                              **
                           250 **                   A) RULE EQUATE X'0300'                       **
                           251 **                   B) INPUT TYPE (EBCDIC OR HEX)                **
                           252 **                   C) ADDRESS OF YES LEG RULE                   **
                           253 **                   D) DESTINATION LOCATION OF INPUT DATA        **
                           254 **                   E) LENGTH OF INPUT DATA                      **
                           255 **                   F) LOWER LIMIT OF GOOD DATA                  **
                           256 **                   G) HIGHER LIMIT OF GOOD DATA                 **
                           257 **                                                                **
                           258 **             $QUXX                                              **
                           259 **                   A) RULE EQUATE X'0400'                       **
                           260 **                   B) ADDRESS OF YES LEG RULE                   **
                           261 **                   C) TU BRANCH TO ADDRESS (INITIAL)            **
                           262 **                   D) TU BRANCH TO ADDRESS (SECONDARY)          **
                           263 **                   E) LENGTH OF PARAMETER IN BYTES              **
                           264 **                   F) PARAMETER TO PASS TO TU                   **
                           265 **                   G) STORE ADDRESS FOR FIRST 8 WORDS OF PARAMETER **
                           266 **                                                                **
                           267 **             $TUXX                                              **
                           268 **                   A) RULE EQUATE X'0500'                       **
                           269 **                   B) ADDRESS OF YES LEG RULE                   **
                           270 **                   C) TU BRANCH TO ADDRESS                      **
                           271 **                   D) TYPE OF COMPARE TO MAKE ON RESULTS        **
                           272 **                   E) LENGTH OF COMPARED RESULTS                **
                           273 **                   F) MASK FIELD FOR COMPARE                    **
                           274 **                   G) LENGTH OF PARAMETER IN BYTES              **
                           275 **                   H) PARAMETER TO PASS TO THE TU               **
                           276 **                   I) STORE ADDRESS FOR FIRST 8 WORDS OF PARAMETER **
                           277 **                                                                **
                           278 **             $NVLD                                              **
                           279 **                   A) RULE EQUATE X'0600'                       **
                           280 **                                                                **
                           281 **   ENTRY POINT TABLE                                            **
                           282 **        THIS TABLE CONTAINS THE ENTRY POINTS WITHIN THE MAP THAT **
                           283 **        THE MAP CAN BE ENTERED FROM THESE ENTRY POINTS ARE      **
                           284 **        REFERENCED BY NAME AND ADDRESS. ENTRIES ARE AS FOLLOWES: **
                           285 **                                                                **
                           286 **             A) NAME OF ENTRY POINT                             **
                           287 **             B) ADDRESS OF ENTRY POINT RULE TABLE               **
                           288 **                                                                **
                           289 **        THE ENTRY POINT TABLE END IS INDICATED BY A X'0000'     **
                           290 **                                                                **
                           291 **   MESSAGE TABLE                                                **
                           292 **        THIS TABLE CONTAINES THE MESSAGE PASSED TO THE OPERATOR  **
                           293 **        VIA THE MDI SUPERVISOR. THE TABLE IS AS FOLLOWES:       **
                           294 **                                                                **
                           295 **             A) EQUATE FOR START OF MESSAGE BLOCK               **
                           296 **             B) NUMBER OF LINES OF MESSAGE                      **
                           297 **             C) LENGTH OF FOLLOWING LINE                        **
                           298 **             D) FIRST LINE OF MESSAGE                           **
                           299 **             E) LENGTH OF FOLLOWING LINE                        **
                           300 **             F) SECOND LINE OF MESSAGE                          **
                           301 **             G) ETC.                                            **
                           302 **                                                                **
                           303 **                                                                **
                           304 ********************************************************************
                           305 ********************************************************************
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 LOCTR  OBJECT TEXT        STMT SOURCE STATEMENT
                            308 ************************************************************************
                            309 ************************************************************************
                            310 **                                                                    **
                            311 **                    STEP AND RULE ADDRESS TABLE                     **
                            312 **                                                                    **
                            313 ************************************************************************
                            314 ************************************************************************
002502  26B0                315          DC    AL2(N00001)
002504  0001                316          DC    XL2'0001'
000001                      317 EQN00001 EQU       0001
002506  26C2                318          DC    AL2(N00002)
002508  0002                319          DC    XL2'0002'
000002                      320 EQN00002 EQU       0002
00250A  26C6                321          DC    AL2(N00003)
00250C  0003                322          DC    XL2'0003'
000003                      323 EQN00003 EQU       0003
00250E  26D8                324          DC    AL2(N00004)
002510  0004                325          DC    XL2'0004'
000004                      326 EQN00004 EQU       0004
002512  26DC                327          DC    AL2(N00005)
002514  0005                328          DC    XL2'0005'
000005                      329 EQN00005 EQU       0005
002516  26F0                330          DC    AL2(N00006)
002518  0006                331          DC    XL2'0006'
000006                      332 EQN00006 EQU       0006
00251A  26F4                333          DC    AL2(N00007)
00251C  0007                334          DC    XL2'0007'
000007                      335 EQN00007 EQU       0007
00251E  2706                336          DC    AL2(N00008)
002520  0008                337          DC    XL2'0008'
000008                      338 EQN00008 EQU       0008
002522  2712                339          DC    AL2(N00009)
002524  0009                340          DC    XL2'0009'
000009                      341 EQN00009 EQU       0009
002526  2722                342          DC    AL2(N00010)
002528  0010                343          DC    XL2'0010'
00000A                      344 EQN00010 EQU       0010
00252A  2726                345          DC    AL2(N00011)
00252C  0011                346          DC    XL2'0011'
00000B                      347 EQN00011 EQU       0011
00252E  2740                348          DC    AL2(N00012)
002530  0012                349          DC    XL2'0012'
00000C                      350 EQN00012 EQU       0012
002532  275A                351          DC    AL2(N00013)
002534  0013                352          DC    XL2'0013'
00000D                      353 EQN00013 EQU       0013
002536  2774                354          DC    AL2(N00014)
002538  0014                355          DC    XL2'0014'
00000E                      356 EQN00014 EQU       0014
00253A  278E                357          DC    AL2(N00015)
00253C  0015                358          DC    XL2'0015'
00000F                      359 EQN00015 EQU       0015
00253E  27A8                360          DC    AL2(N00016)
002540  0016                361          DC    XL2'0016'
000010                      362 EQN00016 EQU       0016
002542  27C2                363          DC    AL2(N00017)
002544  0017                364          DC    XL2'0017'
000011                      365 EQN00017 EQU       0017
002546  27DC                366          DC    AL2(N00018)
002548  0018                367          DC    XL2'0018'
000012                      368 EQN00018 EQU       0018
00254A  27F6                369          DC    AL2(N00019)
00254C  0019                370          DC    XL2'0019'
000013                      371 EQN00019 EQU       0019
00254E  2810                372          DC    AL2(N00020)
002550  0020                373          DC    XL2'0020'
000014                      374 EQN00020 EQU       0020
002552  282A                375          DC    AL2(N00021)
002554  0021                376          DC    XL2'0021'
000015                      377 EQN00021 EQU       0021
002556  2844                378          DC    AL2(N00022)
002558  0022                379          DC    XL2'0022'
000016                      380 EQN00022 EQU       0022
00255A  285E                381          DC    AL2(N00023)
00255C  0023                382          DC    XL2'0023'
000017                      383 EQN00023 EQU       0023
00255E  2878                384          DC    AL2(N00024)
002560  0024                385          DC    XL2'0024'
000018                      386 EQN00024 EQU       0024
002562  2892                387          DC    AL2(N00025)
002564  0025                388          DC    XL2'0025'
000019                      389 EQN00025 EQU       0025
002566  28AC                390          DC    AL2(N00026)
002568  0026                391          DC    XL2'0026'
00001A                      392 EQN00026 EQU       0026
00256A  28C6                393          DC    AL2(N00027)
00256C  0027                394          DC    XL2'0027'
00001B                      395 EQN00027 EQU       0027
00256E  28CA                396          DC    AL2(N00028)
002570  0028                397          DC    XL2'0028'
00001C                      398 EQN00028 EQU       0028
002572  28DA                399          DC    AL2(N00029)
002574  0029                400          DC    XL2'0029'
00001D                      401 EQN00029 EQU       0029
002576  28EA                402          DC    AL2(N00030)
002578  0030                403          DC    XL2'0030'
00001E                      404 EQN00030 EQU       0030
00257A  28EE                405          DC    AL2(N00031)
00257C  0031                406          DC    XL2'0031'
00001F                      407 EQN00031 EQU       0031
00257E  28F2                408          DC    AL2(N00032)
002580  0032                409          DC    XL2'0032'
000020                      410 EQN00032 EQU       0032
002582  28F6                411          DC    AL2(N00033)
002584  0033                412          DC    XL2'0033'
000021                      413 EQN00033 EQU       0033
002586  2906                414          DC    AL2(N00034)
002588  0034                415          DC    XL2'0034'
000022                      416 EQN00034 EQU       0034
00258A  2916                417          DC    AL2(N00035)
00258C  0035                418          DC    XL2'0035'
000023                      419 EQN00035 EQU       0035
00258E  291A                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  291E                423          DC    AL2(N00037)
002594  0037                424          DC    XL2'0037'
000025                      425 EQN00037 EQU       0037
002596  2922                426          DC    AL2(N00038)
002598  0038                427          DC    XL2'0038'
000026                      428 EQN00038 EQU       0038
00259A  2932                429          DC    AL2(N00039)
00259C  0039                430          DC    XL2'0039'
000027                      431 EQN00039 EQU       0039
00259E  2942                432          DC    AL2(N00040)
0025A0  0040                433          DC    XL2'0040'
000028                      434 EQN00040 EQU       0040
0025A2  2946                435          DC    AL2(N00041)
0025A4  0041                436          DC    XL2'0041'
000029                      437 EQN00041 EQU       0041
0025A6  294A                438          DC    AL2(N00042)
0025A8  0042                439          DC    XL2'0042'
00002A                      440 EQN00042 EQU       0042
0025AA  294E                441          DC    AL2(N00043)
0025AC  0043                442          DC    XL2'0043'
00002B                      443 EQN00043 EQU       0043
0025AE  295E                444          DC    AL2(N00044)
0025B0  0044                445          DC    XL2'0044'
00002C                      446 EQN00044 EQU       0044
0025B2  296E                447          DC    AL2(N00045)
0025B4  0045                448          DC    XL2'0045'
00002D                      449 EQN00045 EQU       0045
0025B6  2972                450          DC    AL2(N00046)
0025B8  0046                451          DC    XL2'0046'
00002E                      452 EQN00046 EQU       0046
0025BA  2976                453          DC    AL2(N00047)
0025BC  0047                454          DC    XL2'0047'
00002F                      455 EQN00047 EQU       0047
0025BE  297A                456          DC    AL2(N00048)
0025C0  0048                457          DC    XL2'0048'
000030                      458 EQN00048 EQU       0048
0025C2  298A                459          DC    AL2(N00049)
0025C4  0049                460          DC    XL2'0049'
000031                      461 EQN00049 EQU       0049
0025C6  299A                462          DC    AL2(N00050)
0025C8  0050                463          DC    XL2'0050'
000032                      464 EQN00050 EQU       0050
0025CA  299E                465          DC    AL2(N00051)
0025CC  0051                466          DC    XL2'0051'
000033                      467 EQN00051 EQU       0051
0025CE  29A2                468          DC    AL2(N00052)
0025D0  0052                469          DC    XL2'0052'
000034                      470 EQN00052 EQU       0052
0025D2  29A6                471          DC    AL2(N00053)
0025D4  0053                472          DC    XL2'0053'
000035                      473 EQN00053 EQU       0053
0025D6  29B6                474          DC    AL2(N00054)
0025D8  0054                475          DC    XL2'0054'
000036                      476 EQN00054 EQU       0054
0025DA  29C6                477          DC    AL2(N00055)
0025DC  0055                478          DC    XL2'0055'
000037                      479 EQN00055 EQU       0055
0025DE  29CA                480          DC    AL2(N00056)
0025E0  0056                481          DC    XL2'0056'
000038                      482 EQN00056 EQU       0056
0025E2  29CE                483          DC    AL2(N00057)
0025E4  0057                484          DC    XL2'0057'
000039                      485 EQN00057 EQU       0057
0025E6  29D2                486          DC    AL2(N00058)
0025E8  0058                487          DC    XL2'0058'
00003A                      488 EQN00058 EQU       0058
0025EA  29E2                489          DC    AL2(N00059)
0025EC  0059                490          DC    XL2'0059'
00003B                      491 EQN00059 EQU       0059
0025EE  29F2                492          DC    AL2(N00060)
0025F0  0060                493          DC    XL2'0060'
00003C                      494 EQN00060 EQU       0060
0025F2  29F6                495          DC    AL2(N00061)
0025F4  0061                496          DC    XL2'0061'
00003D                      497 EQN00061 EQU       0061
0025F6  29FA                498          DC    AL2(N00062)
0025F8  0062                499          DC    XL2'0062'
00003E                      500 EQN00062 EQU       0062
0025FA  29FE                501          DC    AL2(N00063)
0025FC  0063                502          DC    XL2'0063'
00003F                      503 EQN00063 EQU       0063
0025FE  2A0E                504          DC    AL2(N00064)
002600  0064                505          DC    XL2'0064'
000040                      506 EQN00064 EQU       0064
002602  2A1E                507          DC    AL2(N00065)
002604  0065                508          DC    XL2'0065'
000041                      509 EQN00065 EQU       0065
002606  2A22                510          DC    AL2(N00066)
002608  0066                511          DC    XL2'0066'
000042                      512 EQN00066 EQU       0066
00260A  2A26                513          DC    AL2(N00067)
00260C  0067                514          DC    XL2'0067'
000043                      515 EQN00067 EQU       0067
00260E  2A2A                516          DC    AL2(N00068)
002610  0068                517          DC    XL2'0068'
000044                      518 EQN00068 EQU       0068
002612  2A3A                519          DC    AL2(N00069)
002614  0069                520          DC    XL2'0069'
000045                      521 EQN00069 EQU       0069
002616  2A4A                522          DC    AL2(N00070)
002618  0070                523          DC    XL2'0070'
000046                      524 EQN00070 EQU       0070
00261A  2A4E                525          DC    AL2(N00071)
00261C  0071                526          DC    XL2'0071'
000047                      527 EQN00071 EQU       0071
00261E  2A52                528          DC    AL2(N00072)
002620  0072                529          DC    XL2'0072'
000048                      530 EQN00072 EQU       0072
002622  2A56                531          DC    AL2(N00073)
002624  0073                532          DC    XL2'0073'
000049                      533 EQN00073 EQU       0073
002626  2A66                534          DC    AL2(N00074)
002628  0074                535          DC    XL2'0074'
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LOCTR  OBJECT TEXT   STMT SOURCE STATEMENT
00004A                536 EQN00074 EQU     0074
00262A  2A76          537          DC    AL2(N00075)
00262C  0075          538          DC    XL2'0075'
00004B                539 EQN00075 EQU     0075
00262E  2A7A          540          DC    AL2(N00076)
002630  0076          541          DC    XL2'0076'
00004C                542 EQN00076 EQU     0076
002632  2A7E          543          DC    AL2(N00077)
002634  0077          544          DC    XL2'0077'
00004D                545 EQN00077 EQU     0077
002636  2A82          546          DC    AL2(N00078)
002638  0078          547          DC    XL2'0078'
00004E                548 EQN00078 EQU     0078
00263A  2A92          549          DC    AL2(N00079)
00263C  0079          550          DC    XL2'0079'
00004F                551 EQN00079 EQU     0079
00263E  2AA2          552          DC    AL2(N00080)
002640  0080          553          DC    XL2'0080'
000050                554 EQN00080 EQU     0080
002642  2AA6          555          DC    AL2(N00081)
002644  0081          556          DC    XL2'0081'
000051                557 EQN00081 EQU     0081
002646  2AAA          558          DC    AL2(N00082)
002648  0082          559          DC    XL2'0082'
000052                560 EQN00082 EQU     0082
00264A  2AAE          561          DC    AL2(N00083)
00264C  0083          562          DC    XL2'0083'
000053                563 EQN00083 EQU     0083
00264E  2ABE          564          DC    AL2(N00084)
002650  0084          565          DC    XL2'0084'
000054                566 EQN00084 EQU     0084
002652  2ACE          567          DC    AL2(N00085)
002654  0085          568          DC    XL2'0085'
000055                569 EQN00085 EQU     0085
002656  2AD2          570          DC    AL2(N00086)
002658  0086          571          DC    XL2'0086'
000056                572 EQN00086 EQU     0086
00265A  2AD6          573          DC    AL2(N00087)
00265C  0087          574          DC    XL2'0087'
000057                575 EQN00087 EQU     0087
00265E  2ADA          576          DC    AL2(N00088)
002660  0088          577          DC    XL2'0088'
000058                578 EQN00088 EQU     0088
002662  2AEA          579          DC    AL2(N00089)
002664  0089          580          DC    XL2'0089'
000059                581 EQN00089 EQU     0089
002666  2AFA          582          DC    AL2(N00090)
002668  0090          583          DC    XL2'0090'
00005A                584 EQN00090 EQU     0090
00266A  2AFE          585          DC    AL2(N00091)
00266C  0091          586          DC    XL2'0091'
00005B                587 EQN00091 EQU     0091
00266E  2B02          588          DC    AL2(N00092)
002670  0092          589          DC    XL2'0092'
00005C                590 EQN00092 EQU     0092
002672  2B06          591          DC    AL2(N00093)
002674  0093          592          DC    XL2'0093'
00005D                593 EQN00093 EQU     0093
002676  2B16          594          DC    AL2(N00094)
002678  0094          595          DC    XL2'0094'
00005E                596 EQN00094 EQU     0094
00267A  2B26          597          DC    AL2(N00095)
00267C  0095          598          DC    XL2'0095'
00005F                599 EQN00095 EQU     0095
00267E  2B2A          600          DC    AL2(N00096)
002680  0096          601          DC    XL2'0096'
000060                602 EQN00096 EQU     0096
002682  2B2E          603          DC    AL2(N00097)
002684  0097          604          DC    XL2'0097'
000061                605 EQN00097 EQU     0097
002686  2B32          606          DC    AL2(N00098)
002688  0098          607          DC    XL2'0098'
000062                608 EQN00098 EQU     0098
00268A  2B42          609          DC    AL2(N00099)
00268C  0099          610          DC    XL2'0099'
000063                611 EQN00099 EQU     0099
00268E  2B52          612          DC    AL2(N00100)
002690  0100          613          DC    XL2'0100'
000064                614 EQN00100 EQU     0100
002692  2B56          615          DC    AL2(N00101)
002694  0101          616          DC    XL2'0101'
000065                617 EQN00101 EQU     0101
002696  2B5A          618          DC    AL2(N00102)
002698  0102          619          DC    XL2'0102'
000066                620 EQN00102 EQU     0102
00269A  2B5E          621          DC    AL2(N00103)
00269C  0103          622          DC    XL2'0103'
000067                623 EQN00103 EQU     0103
00269E  2B6E          624          DC    AL2(N00104)
0026A0  0104          625          DC    XL2'0104'
000068                626 EQN00104 EQU     0104
0026A2  2B7E          627          DC    AL2(N00105)
0026A4  0105          628          DC    XL2'0105'
000069                629 EQN00105 EQU     0105
0026A6  2B82          630          DC    AL2(N00106)
0026A8  0106          631          DC    XL2'0106'
00006A                632 EQN00106 EQU     0106
0026AA  2B86          633          DC    AL2(N00107)
0026AC  0107          634          DC    XL2'0107'
00006B                635 EQN00107 EQU     0107
0026AE  0000          636          DC    AL2(DUMMY)
                      637 ********************************************************************
                      638 ********************************************************************
                      639 **                                                                **
                      640 **                    RULE INFORMATION TABLE                      **
                      641 **                                                                **
                      642 ********************************************************************
                      643 ********************************************************************
                      644 N00001   $TUXX T7A02,02,0040,OF,QT=(Q00084),YES=N00003,CT=(C00009),    X
0026B0  0500          645+N00001   DC    A(@TUXX)
0026B2  26C6          646+         DC    AL2(N00003)
0026B4  39AA          647+         DC    A(T7A02)
0026B6  0202          648+         DC    AL2(OF)
0026B8  0002          649+         DC    AL2(02)
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LOCTR  OBJECT TEXT   STMT SOURCE STATEMENT
0026BA  0040          650+         DC    X'0040'
                      651+         ALIGN WORD
0026BC  0000          652+         DC    AL2(0)
0026BE  C1C1          653+         DC    C'AA'
                      654+         ALIGN WORD
0026C0  196E          655+         DC     AL2(PARMARA)
                      656 N00002   $FIXT FT=(F00086)
0026C2  0101          657+N00002   DC    A(@FIXT)
0026C4  2B9A          658+         DC    A(F00086)
                      659 N00003   $TUXX T7A02,02,0020,OF,QT=(Q00089),YES=N00005,CT=(C00009)
0026C6  0500          660+N00003   DC    A(@TUXX)
0026C8  26DC          661+         DC    AL2(N00005)
0026CA  39AA          662+         DC    A(T7A02)
0026CC  0202          663+         DC    AL2(OF)
0026CE  0002          664+         DC    AL2(02)
0026D0  0020          665+         DC    X'0020'
                      666+         ALIGN WORD
0026D2  0000          667+         DC    AL2(0)
0026D4  C1C1          668+         DC    C'AA'
                      669+         ALIGN WORD
0026D6  196E          670+         DC     AL2(PARMARA)
                      671 N00004   $FIXT FT=(F00091)
0026D8  0101          672+N00004   DC    A(@FIXT)
0026DA  2BFA          673+         DC    A(F00091)
                      674 N00005   $TUXX T7A02,04,00004000,OF,QT=(Q00094),YES=N00007,CT=(C00009)
0026DC  0500          675+N00005   DC    A(@TUXX)
0026DE  26F4          676+         DC    AL2(N00007)
0026E0  39AA          677+         DC    A(T7A02)
0026E2  0202          678+         DC    AL2(OF)
0026E4  0004          679+         DC    AL2(04)
0026E6  00004000      680+         DC    X'00004000'
                      681+         ALIGN WORD
0026EA  0000          682+         DC    AL2(0)
0026EC  C1C1          683+         DC    C'AA'
                      684+         ALIGN WORD
0026EE  196E          685+         DC     AL2(PARMARA)
                      686 N00006   $FIXT FT=(F00096)
0026F0  0101          687+N00006   DC    A(@FIXT)
0026F2  2C5A          688+         DC    A(F00096)
                      689 N00007   $TUXX T7A02,02,0010,ON,QT=(Q00099),YES=N00009,CT=(C00009)
0026F4  0500          690+N00007   DC    A(@TUXX)
0026F6  2712          691+         DC    AL2(N00009)
0026F8  39AA          692+         DC    A(T7A02)
0026FA  0200          693+         DC    AL2(ON)
0026FC  0002          694+         DC    AL2(02)
0026FE  0010          695+         DC    X'0010'
                      696+         ALIGN WORD
002700  0000          697+         DC    AL2(0)
002702  C1C1          698+         DC    C'AA'
                      699+         ALIGN WORD
002704  196E          700+         DC     AL2(PARMARA)
                      701 N00008   $GOTO TYPE=XTRNL,EP=A,MAP=7A13,FT=(F00101)
002706  0200          702+N00008   DC    A(@GOTO)
002708  2CBA          703+         DC    A(F00101)
00270A  F7C1F1F3      704+         DC    CL4'7A13'
00270E  C140          705+         DC    CL2'A'
002710  0001          706+         DC    AL2(XTRNL)
                      707 N00009   $QUXX T7A28,REPT=L7A28,PLNG=4,PARM=FFFF,QT=(Q00060),          X
002712  0400          708+N00009   DC    A(@QUXX)
002714  2726          709+         DC    AL2(N00011)
002716  3EEE          710+         DC    A(T7A28)
002718  3F02          711+         DC    AL2(L7A28)
00271A  0004          712+         DC    AL2(4)
00271C  C6C6C6C6      713+         DC    C'FFFF'
                      714+         ALIGN WORD
002720  196E          715+         DC     AL2(PARMARA)
                      716 N00010   $FIXT FT=(F00107)
002722  0101          717+N00010   DC    A(@FIXT)
002724  2CCE          718+         DC    A(F00107)
                      719 N00011   $TUXX T7A02,10,0000000000000008000,EQ,QT=(Q00110),YES=N00103,X
002726  0500          720+N00011   DC    A(@TUXX)
002728  2B5E          721+         DC    AL2(N00103)
00272A  39AA          722+         DC    A(T7A02)
00272C  0000          723+         DC    AL2(EQ)
00272E  000A          724+         DC    AL2(10)
002730  00000000000000008          725+         DC    X'00000000000000008000'
                      726+         ALIGN WORD
00273A  0000          727+         DC    AL2(0)
00273C  C1C1          728+         DC    C'AA'
                      729+         ALIGN WORD
00273E  196E          730+         DC     AL2(PARMARA)
                      731 N00012   $TUXX T7A02,10,0000000000000004000,EQ,QT=(Q00114),YES=N00098,X
002740  0500          732+N00012   DC    A(@TUXX)
002742  2B32          733+         DC    AL2(N00098)
002744  39AA          734+         DC    A(T7A02)
002746  0000          735+         DC    AL2(EQ)
002748  000A          736+         DC    AL2(10)
00274A  00000000000000004          737+         DC    X'00000000000000004000'
                      738+         ALIGN WORD
002754  0000          739+         DC    AL2(0)
002756  C1C1          740+         DC    C'AA'
                      741+         ALIGN WORD
002758  196E          742+         DC     AL2(PARMARA)
                      743 N00013   $TUXX T7A02,10,0000000000000002000,EQ,QT=(Q00118),YES=N00093,X
00275A  0500          744+N00013   DC    A(@TUXX)
00275C  2B06          745+         DC    AL2(N00093)
00275E  39AA          746+         DC    A(T7A02)
002760  0000          747+         DC    AL2(EQ)
002762  000A          748+         DC    AL2(10)
002764  00000000000000002          749+         DC    X'00000000000000002000'
                      750+         ALIGN WORD
00276E  0000          751+         DC    AL2(0)
002770  C1C1          752+         DC    C'AA'
                      753+         ALIGN WORD
002772  196E          754+         DC     AL2(PARMARA)
                      755 N00014   $TUXX T7A02,10,0000000000000001000,EQ,QT=(Q00122),YES=N00088,X
002774  0500          756+N00014   DC    A(@TUXX)
002776  2ADA          757+         DC    AL2(N00088)
002778  39AA          758+         DC    A(T7A02)
00277A  0000          759+         DC    AL2(EQ)
00277C  000A          760+         DC    AL2(10)
00277E  00000000000000001          761+         DC    X'00000000000000001000'
                      762+         ALIGN WORD
002788  0000          763+         DC    AL2(0)
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 LOCTR  OBJECT TEXT        STMT SOURCE STATEMENT                                  COPYRIGHT IBM CORP 1976
00278A  C1C1                764+         DC    C'AA'
                            765+         ALIGN WORD
00278C  196E                766+         DC     AL2(PARMARA)
                            767 N00015   $TUXX T7A02,10,00000000000000000800,EQ,QT=(Q00126),YES=N00083,X
00278E  0500                768+N00015   DC    A(@TUXX)
002790  2AAE                769+         DC    AL2(N00083)
002792  39AA                770+         DC    A(T7A02)
002794  0000                771+         DC    AL2(EQ)
002796  000A                772+         DC    AL2(10)
002798  00000000000000000   773+         DC    X'00000000000000000800'
                            774+         ALIGN WORD
0027A2  0000                775+         DC    AL2(0)
0027A4  C1C1                776+         DC    C'AA'
                            777+         ALIGN WORD
0027A6  196E                778+         DC     AL2(PARMARA)
                            779 N00016   $TUXX T7A02,10,00000000000000000400,EQ,QT=(Q00130),YES=N00078,X
0027A8  0500                780+N00016   DC    A(@TUXX)
0027AA  2A82                781+         DC    AL2(N00078)
0027AC  39AA                782+         DC    A(T7A02)
0027AE  0000                783+         DC    AL2(EQ)
0027B0  000A                784+         DC    AL2(10)
0027B2  00000000000000000   785+         DC    X'00000000000000000400'
                            786+         ALIGN WORD
0027BC  0000                787+         DC    AL2(0)
0027BE  C1C1                788+         DC    C'AA'
                            789+         ALIGN WORD
0027C0  196E                790+         DC     AL2(PARMARA)
                            791 N00017   $TUXX T7A02,10,00000000000000000200,EQ,QT=(Q00134),YES=N00073,X
0027C2  0500                792+N00017   DC    A(@TUXX)
0027C4  2A56                793+         DC    AL2(N00073)
0027C6  39AA                794+         DC    A(T7A02)
0027C8  0000                795+         DC    AL2(EQ)
0027CA  000A                796+         DC    AL2(10)
0027CC  00000000000000000   797+         DC    X'00000000000000000200'
                            798+         ALIGN WORD
0027D6  0000                799+         DC    AL2(0)
0027D8  C1C1                800+         DC    C'AA'
                            801+         ALIGN WORD
0027DA  196E                802+         DC     AL2(PARMARA)
                            803 N00018   $TUXX T7A02,10,00000000000000000100,EQ,QT=(Q00138),YES=N00068,X
0027DC  0500                804+N00018   DC    A(@TUXX)
0027DE  2A2A                805+         DC    AL2(N00068)
0027E0  39AA                806+         DC    A(T7A02)
0027E2  0000                807+         DC    AL2(EQ)
0027E4  000A                808+         DC    AL2(10)
0027E6  00000000000000000   809+         DC    X'00000000000000000100'
                            810+         ALIGN WORD
0027F0  0000                811+         DC    AL2(0)
0027F2  C1C1                812+         DC    C'AA'
                            813+         ALIGN WORD
0027F4  196E                814+         DC     AL2(PARMARA)
                            815 N00019   $TUXX T7A02,10,00000000000000000080,EQ,QT=(Q00142),YES=N00063,X
0027F6  0500                816+N00019   DC    A(@TUXX)
0027F8  29FE                817+         DC    AL2(N00063)
0027FA  39AA                818+         DC    A(T7A02)
0027FC  0000                819+         DC    AL2(EQ)
0027FE  000A                820+         DC    AL2(10)
002800  00000000000000000   821+         DC    X'00000000000000000080'
                            822+         ALIGN WORD
00280A  0000                823+         DC    AL2(0)
00280C  C1C1                824+         DC    C'AA'
                            825+         ALIGN WORD
00280E  196E                826+         DC     AL2(PARMARA)
                            827 N00020   $TUXX T7A02,10,00000000000000000040,EQ,QT=(Q00146),YES=N00058,X
002810  0500                828+N00020   DC    A(@TUXX)
002812  29D2                829+         DC    AL2(N00058)
002814  39AA                830+         DC    A(T7A02)
002816  0000                831+         DC    AL2(EQ)
002818  000A                832+         DC    AL2(10)
00281A  00000000000000000   833+         DC    X'00000000000000000040'
                            834+         ALIGN WORD
002824  0000                835+         DC    AL2(0)
002826  C1C1                836+         DC    C'AA'
                            837+         ALIGN WORD
002828  196E                838+         DC     AL2(PARMARA)
                            839 N00021   $TUXX T7A02,10,00000000000000000020,EQ,QT=(Q00150),YES=N00053,X
00282A  0500                840+N00021   DC    A(@TUXX)
00282C  29A6                841+         DC    AL2(N00053)
00282E  39AA                842+         DC    A(T7A02)
002830  0000                843+         DC    AL2(EQ)
002832  000A                844+         DC    AL2(10)
002834  00000000000000000   845+         DC    X'00000000000000000020'
                            846+         ALIGN WORD
00283E  0000                847+         DC    AL2(0)
002840  C1C1                848+         DC    C'AA'
                            849+         ALIGN WORD
002842  196E                850+         DC     AL2(PARMARA)
                            851 N00022   $TUXX T7A02,10,00000000000000000010,EQ,QT=(Q00154),YES=N00048,X
002844  0500                852+N00022   DC    A(@TUXX)
002846  297A                853+         DC    AL2(N00048)
002848  39AA                854+         DC    A(T7A02)
00284A  0000                855+         DC    AL2(EQ)
00284C  000A                856+         DC    AL2(10)
00284E  00000000000000000   857+         DC    X'00000000000000000010'
                            858+         ALIGN WORD
002858  0000                859+         DC    AL2(0)
00285A  C1C1                860+         DC    C'AA'
                            861+         ALIGN WORD
00285C  196E                862+         DC     AL2(PARMARA)
                            863 N00023   $TUXX T7A02,10,00000000000000000008,EQ,QT=(Q00158),YES=N00043,X
00285E  0500                864+N00023   DC    A(@TUXX)
002860  294E                865+         DC    AL2(N00043)
002862  39AA                866+         DC    A(T7A02)
002864  0000                867+         DC    AL2(EQ)
002866  000A                868+         DC    AL2(10)
002868  00000000000000000   869+         DC    X'00000000000000000008'
                            870+         ALIGN WORD
002872  0000                871+         DC    AL2(0)
002874  C1C1                872+         DC    C'AA'
                            873+         ALIGN WORD
002876  196E                874+         DC     AL2(PARMARA)
                            875 N00024   $TUXX T7A02,10,00000000000000000004,EQ,QT=(Q00162),YES=N00038,X
002878  0500                876+N00024   DC    A(@TUXX)
00287A  2922                877+         DC    AL2(N00038)
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 LOCTR  OBJECT TEXT        STMT SOURCE STATEMENT                                  COPYRIGHT IBM CORP 1976
00287C  39AA                878+         DC    A(T7A02)
00287E  0000                879+         DC    AL2(EQ)
002880  000A                880+         DC    AL2(10)
002882  00000000000000000   881+         DC    X'00000000000000000004'
                            882+         ALIGN WORD
00288C  0000                883+         DC    AL2(0)
00288E  C1C1                884+         DC    C'AA'
                            885+         ALIGN WORD
002890  196E                886+         DC     AL2(PARMARA)
                            887 N00025   $TUXX T7A02,10,00000000000000000002,EQ,QT=(Q00166),YES=N00033,X
002892  0500                888+N00025   DC    A(@TUXX)
002894  28F6                889+         DC    AL2(N00033)
002896  39AA                890+         DC    A(T7A02)
002898  0000                891+         DC    AL2(EQ)
00289A  000A                892+         DC    AL2(10)
00289C  00000000000000000   893+         DC    X'00000000000000000002'
                            894+         ALIGN WORD
0028A6  0000                895+         DC    AL2(0)
0028A8  C1C1                896+         DC    C'AA'
                            897+         ALIGN WORD
0028AA  196E                898+         DC     AL2(PARMARA)
                            899 N00026   $TUXX T7A02,10,00000000000000000010,EQ,QT=(Q00170),YES=N00028,X
0028AC  0500                900+N00026   DC    A(@TUXX)
0028AE  28CA                901+         DC    AL2(N00028)
0028B0  39AA                902+         DC    A(T7A02)
0028B2  0000                903+         DC    AL2(EQ)
0028B4  000A                904+         DC    AL2(10)
0028B6  00000000000000000   905+         DC    X'00000000000000000010'
                            906+         ALIGN WORD
0028C0  0000                907+         DC    AL2(0)
0028C2  C1C1                908+         DC    C'AA'
                            909+         ALIGN WORD
0028C4  196E                910+         DC     AL2(PARMARA)
                            911 N00027   $FIXT FT=(F00173)
0028C6  0101                912+N00027   DC    A(@FIXT)
0028C8  2D2E                913+         DC    A(F00173)
                            914 N00028   $QUXX T7A28,REPT=L7A28,PLNG=4,PARM=0001,QT=(Q00060),          X
0028CA  0400                915+N00028   DC    A(@QUXX)
0028CC  28F2                916+         DC    AL2(N00032)
0028CE  3EEE                917+         DC    A(T7A28)
0028D0  3F02                918+         DC    AL2(L7A28)
0028D2  0004                919+         DC    AL2(4)
0028D4  F0F0F0F1            920+         DC    C'0001'
                            921+         ALIGN WORD
0028D8  196E                922+         DC     AL2(PARMARA)
                            923 N00029   $QUXX T7A28,REPT=L7A28,PLNG=4,PARM=0001,QT=(Q00060),          X
0028DA  0400                924+N00029   DC    A(@QUXX)
0028DC  28EE                925+         DC    AL2(N00031)
0028DE  3EEE                926+         DC    A(T7A28)
0028E0  3F02                927+         DC    AL2(L7A28)
0028E2  0004                928+         DC    AL2(4)
0028E4  F0F0F0F1            929+         DC    C'0001'
                            930+         ALIGN WORD
0028E8  196E                931+         DC     AL2(PARMARA)
                            932 N00030   $FIXT FT=(F00062),ST=(S00066)
0028EA  0101                933+N00030   DC    A(@FIXT)
0028EC  2D8E                934+         DC    A(F00062)
                            935 N00031   $FIXT FT=(F00306)
0028EE  0101                936+N00031   DC    A(@FIXT)
0028F0  2E1A                937+         DC    A(F00306)
                            938 N00032   $FIXT FT=(F00308)
0028F2  0101                939+N00032   DC    A(@FIXT)
0028F4  2E74                940+         DC    A(F00308)
                            941 N00033   $QUXX T7A28,REPT=L7A28,PLNG=4,PARM=0002,QT=(Q00060),          X
0028F6  0400                942+N00033   DC    A(@QUXX)
0028F8  291E                943+         DC    AL2(N00037)
0028FA  3EEE                944+         DC    A(T7A28)
0028FC  3F02                945+         DC    AL2(L7A28)
0028FE  0004                946+         DC    AL2(4)
002900  F0F0F0F2            947+         DC    C'0002'
                            948+         ALIGN WORD
002904  196E                949+         DC     AL2(PARMARA)
                            950 N00034   $QUXX T7A28,REPT=L7A28,PLNG=4,PARM=0002,QT=(Q00060),          X
002906  0400                951+N00034   DC    A(@QUXX)
002908  2918                952+         DC    AL2(N00036)
00290A  3EEE                953+         DC    A(T7A28)
00290C  3F02                954+         DC    AL2(L7A28)
00290E  0004                955+         DC    AL2(4)
002910  F0F0F0F2            956+         DC    C'0002'
                            957+         ALIGN WORD
002914  196E                958+         DC     AL2(PARMARA)
                            959 N00035   $FIXT FT=(F00062),ST=(S00066)
002916  0101                960+N00035   DC    A(@FIXT)
002918  2D8E                961+         DC    A(F00062)
                            962 N00036   $FIXT FT=(F00321)
00291A  0101                963+N00036   DC    A(@FIXT)
00291C  2ECE                964+         DC    A(F00321)
                            965 N00037   $FIXT FT=(F00323)
00291E  0101                966+N00037   DC    A(@FIXT)
002920  2F28                967+         DC    A(F00323)
                            968 N00038   $QUXX T7A28,REPT=L7A28,PLNG=4,PARM=0004,QT=(Q00060),          X
002922  0400                969+N00038   DC    A(@QUXX)
002924  294A                970+         DC    AL2(N00042)
002926  3EEE                971+         DC    A(T7A28)
002928  3F02                972+         DC    AL2(L7A28)
00292A  0004                973+         DC    AL2(4)
00292C  F0F0F0F4            974+         DC    C'0004'
                            975+         ALIGN WORD
002930  196E                976+         DC     AL2(PARMARA)
                            977 N00039   $QUXX T7A28,REPT=L7A28,PLNG=4,PARM=0004,QT=(Q00060),          X
002932  0400                978+N00039   DC    A(@QUXX)
002934  2946                979+         DC    AL2(N00041)
002936  3EEE                980+         DC    A(T7A28)
002938  3F02                981+         DC    AL2(L7A28)
00293A  0004                982+         DC    AL2(4)
00293C  F0F0F0F4            983+         DC    C'0004'
                            984+         ALIGN WORD
002940  196E                985+         DC     AL2(PARMARA)
                            986 N00040   $FIXT FT=(F00062),ST=(S00066)
002942  0101                987+N00040   DC    A(@FIXT)
002944  2D8E                988+         DC    A(F00062)
                            989 N00041   $FIXT FT=(F00336)
002946  0101                990+N00041   DC    A(@FIXT)
002948  2F82                991+         DC    A(F00336)
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                            992 N00042   $FIXT FT=(F00338)
002294A  0101               993+N00042   DC    A(@FIXT)
002294C  2FDC               994+         DC    A(F00338)
                            995 N00043   $QUXX T7A28,REPT=L7A28,PLNG=4,PARM=0008,QT=(Q00060),          X
002294E  0400               996+N00043   DC    A(@QUXX)
002950  2976               997+         DC    AL2(N00047)
002952  3EEE               998+         DC    A(T7A28)
002954  3F02               999+         DC    AL2(L7A28)
002956  0004              1000+         DC    AL2(4)
002958  F0F0F0F8          1001+         DC    C'0008'
                           1002+         ALIGN WORD
00295C  196E               1003+         DC    AL2(PARMARA)
                           1004 N00044   $QUXX T7A28,REPT=L7A28,PLNG=4,PARM=0008,QT=(Q00060),          X
00295E  0400               1005+N00044   DC    A(@QUXX)
002960  2972               1006+         DC    AL2(N00046)
002962  3EEE               1007+         DC    A(T7A28)
002964  3F02               1008+         DC    AL2(L7A28)
002966  0004               1009+         DC    AL2(4)
002968  F0F0F0F8          1010+         DC    C'0008'
                           1011+         ALIGN WORD
00296C  196E               1012+         DC    AL2(PARMARA)
                           1013 N00045   $FIXT FT=(F00062),ST=(S00066)
00296E  0101               1014+N00045   DC    A(@FIXT)
002970  2D8E               1015+         DC    A(F00062)
                           1016 N00046   $FIXT FT=(F00351)
002972  0101               1017+N00046   DC    A(@FIXT)
002974  3036               1018+         DC    A(F00351)
                           1019 N00047   $FIXT FT=(F00353)
002976  0101               1020+N00047   DC    A(@FIXT)
002978  3090               1021+         DC    A(F00353)
                           1022 N00048   $QUXX T7A28,REPT=L7A28,PLNG=4,PARM=0010,QT=(Q00060),          X
00297A  0400               1023+N00048   DC    A(@QUXX)
00297C  29A2               1024+         DC    AL2(N00052)
00297E  3EEE               1025+         DC    A(T7A28)
002980  3F02               1026+         DC    AL2(L7A28)
002982  0004               1027+         DC    AL2(4)
002984  F0F0F1F0           1028+         DC    C'0010'
                           1029+         ALIGN WORD
002988  196E               1030+         DC    AL2(PARMARA)
                           1031 N00049   $QUXX T7A28,REPT=L7A28,PLNG=4,PARM=0010,QT=(Q00060),          Y
00298A  0400               1032+N00049   DC    A(@QUXX)
00298C  299E               1033+         DC    AL2(N00051)
00298E  3EEE               1034+         DC    A(T7A28)
002990  3F02               1035+         DC    AL2(L7A28)
002992  0004               1036+         DC    AL2(4)
002994  F0F0F1F0           1037+         DC    C'0010'
                           1038+         ALIGN WORD
002998  196E               1039+         DC    AL2(PARMARA)
                           1040 N00050   $FIXT FT=(F00062),ST=(S00066)
00299A  0101               1041+N00050   DC    A(@FIXT)
00299C  2D8E               1042+         DC    A(F00062)
                           1043 N00051   $FIXT FT=(F00366)
00299E  0101               1044+N00051   DC    A(@FIXT)
0029A0  30EA               1045+         DC    A(F00366)
                           1046 N00052   $FIXT FT=(F00368)
0029A2  0101               1047+N00052   DC    A(@FIXT)
0029A4  3144               1048+         DC    A(F00368)
                           1049 N00053   $QUXX T7A28,REPT=L7A28,PLNG=4,PARM=0020,QT=(Q00060),          Y
0029A6  0400               1050+N00053   DC    A(@QUXX)
0029A8  29CE               1051+         DC    AL2(N00057)
0029AA  3EEE               1052+         DC    A(T7A28)
0029AC  3F02               1053+         DC    AL2(L7A28)
0029AE  0004               1054+         DC    AL2(4)
0029B0  F0F0F2F0           1055+         DC    C'0020'
                           1056+         ALIGN WORD
0029B4  196E               1057+         DC    AL2(PARMARA)
                           1058 N00054   $QUXX T7A28,REPT=L7A28,PLNG=4,PARM=0020,QT=(Q00060),          X
0029B6  0400               1059+N00054   DC    A(@QUXX)
0029B8  29CA               1060+         DC    AL2(N00056)
0029BA  3EEE               1061+         DC    A(T7A28)
0029BC  3F02               1062+         DC    AL2(L7A28)
0029BE  0004               1063+         DC    AL2(4)
0029C0  F0F0F2F0           1064+         DC    C'0020'
                           1065+         ALIGN WORD
0029C4  196E               1066+         DC    AL2(PARMARA)
                           1067 N00055   $FIXT FT=(F00062),ST=(S00066)
0029C6  0101               1068+N00055   DC    A(@FIXT)
0029C8  2D8E               1069+         DC    A(F00062)
                           1070 N00056   $FIXT FT=(F00381)
0029CA  0101               1071+N00056   DC    A(@FIXT)
0029CC  319E               1072+         DC    A(F00381)
                           1073 N00057   $FIXT FT=(F00383)
0029CE  0101               1074+N00057   DC    A(@FIXT)
0029D0  31F8               1075+         DC    A(F00383)
                           1076 N00058   $QUXX T7A28,REPT=L7A28,PLNG=4,PARM=0040,QT=(Q00060),          X
0029D2  0400               1077+N00058   DC    A(@QUXX)
0029D4  29FA               1078+         DC    AL2(N00062)
0029D6  3EEE               1079+         DC    A(T7A28)
0029D8  3F02               1080+         DC    AL2(L7A28)
0029DA  0004               1081+         DC    AL2(4)
0029DC  F0F0F4F0           1082+         DC    C'0040'
                           1083+         ALIGN WORD
0029E0  196E               1084+         DC    AL2(PARMARA)
                           1085 N00059   $QUXX T7A28,REPT=L7A28,PLNG=4,PARM=0040,QT=(Q00060),          X
0029E2  0400               1086+N00059   DC    A(@QUXX)
0029E4  29F6               1087+         DC    AL2(N00061)
0029E6  3EEE               1088+         DC    A(T7A28)
0029E8  3F02               1089+         DC    AL2(L7A28)
0029EA  0004               1090+         DC    AL2(4)
0029EC  F0F0F4F0           1091+         DC    C'0040'
                           1092+         ALIGN WORD
0029F0  196E               1093+         DC    AL2(PARMARA)
                           1094 N00060   $FIXT FT=(F00062),ST=(S00066)
0029F2  0101               1095+N00060   DC    A(@FIXT)
0029F4  2D8E               1096+         DC    A(F00062)
                           1097 N00061   $FIXT FT=(F00396)
0029F6  0101               1098+N00061   DC    A(@FIXT)
0029F8  3252               1099+         DC    A(F00396)
                           1100 N00062   $FIXT FT=(F00398)
0029FA  0101               1101+N00062   DC    A(@FIXT)
0029FC  32AC               1102+         DC    A(F00398)
                           1103 N00063   $QUXX T7A28,REPT=L7A28,PLNG=4,PARM=0080,QT=(Q00060),          X
0029FE  0400               1104+N00063   DC    A(@QUXX)
002A00  2A26               1105+         DC    AL2(N00067)
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002A02  3EEE               1106+         DC    A(T7A28)
002A04  3F02               1107+         DC    AL2(L7A28)
002A06  0004               1108+         DC    AL2(4)
002A08  F0F0F8F0           1109+         DC    C'0080'
                           1110+         ALIGN WORD
002A0C  196E               1111+         DC    AL2(PARMARA)
                           1112 N00064   $QUXX T7A28,REPT=L7A28,PLNG=4,PARM=0080,QT=(Q00060),          X
002A0E  0400               1113+N00064   DC    A(@QUXX)
002A10  2A22               1114+         DC    AL2(N00066)
002A12  3EEE               1115+         DC    A(T7A28)
002A14  3F02               1116+         DC    AL2(L7A28)
002A16  0004               1117+         DC    AL2(4)
002A18  F0F0F8F0           1118+         DC    C'0080'
                           1119+         ALIGN WORD
002A1C  196E               1120+         DC    AL2(PARMARA)
                           1121 N00065   $FIXT FT=(F00062),ST=(S00066)
002A1E  0101               1122+N00065   DC    A(@FIXT)
002A20  2D8E               1123+         DC    A(F00062)
                           1124 N00066   $FIXT FT=(F00411)
002A22  0101               1125+N00066   DC    A(@FIXT)
002A24  3306               1126+         DC    A(F00411)
                           1127 N00067   $FIXT FT=(F00413)
002A26  0101               1128+N00067   DC    A(@FIXT)
002A28  3360               1129+         DC    A(F00413)
                           1130 N00068   $QUXX T7A28,REPT=L7A28,PLNG=4,PARM=0100,QT=(Q00060),          X
002A2A  0400               1131+N00068   DC    A(@QUXX)
002A2C  2A52               1132+         DC    AL2(N00072)
002A2E  3EEE               1133+         DC    A(T7A28)
002A30  3F02               1134+         DC    AL2(L7A28)
002A32  0004               1135+         DC    AL2(4)
002A34  F0F1F0F0           1136+         DC    C'0100'
                           1137+         ALIGN WORD
002A38  196E               1138+         DC    AL2(PARMARA)
                           1139 N00069   $QUXX T7A28,REPT=L7A28,PLNG=4,PARM=0100,QT=(Q00060),          X
002A3A  0400               1140+N00069   DC    A(@QUXX)
002A3C  2A4E               1141+         DC    AL2(N00071)
002A3E  3EEE               1142+         DC    A(T7A28)
002A40  3F02               1143+         DC    AL2(L7A28)
002A42  0004               1144+         DC    AL2(4)
002A44  F0F1F0F0           1145+         DC    C'0100'
                           1146+         ALIGN WORD
002A48  196E               1147+         DC    AL2(PARMARA)
                           1148 N00070   $FIXT FT=(F00062),ST=(S00066)
002A4A  0101               1149+N00070   DC    A(@FIXT)
002A4C  2D8E               1150+         DC    A(F00062)
                           1151 N00071   $FIXT FT=(F00186)
002A4E  0101               1152+N00071   DC    A(@FIXT)
002A50  33BA               1153+         DC    A(F00186)
                           1154 N00072   $FIXT FT=(F00188)
002A52  0101               1155+N00072   DC    A(@FIXT)
002A54  3414               1156+         DC    A(F00188)
                           1157 N00073   $QUXX T7A28,REPT=L7A28,PLNG=4,PARM=0200,QT=(Q00060),          X
002A56  0400               1158+N00073   DC    A(@QUXX)
002A58  2A7E               1159+         DC    AL2(N00077)
002A5A  3EEE               1160+         DC    A(T7A28)
002A5C  3F02               1161+         DC    AL2(L7A28)
002A5E  0004               1162+         DC    AL2(4)
002A60  F0F2F0F0           1163+         DC    C'0200'
                           1164+         ALIGN WORD
002A64  196E               1165+         DC    AL2(PARMARA)
                           1166 N00074   $QUXX T7A28,REPT=L7A28,PLNG=4,PARM=0200,QT=(Q00060),          X
002A66  0400               1167+N00074   DC    A(@QUXX)
002A68  2A7A               1168+         DC    AL2(N00076)
002A6A  3EEE               1169+         DC    A(T7A28)
002A6C  3F02               1170+         DC    AL2(L7A28)
002A6E  0004               1171+         DC    AL2(4)
002A70  F0F2F0F0           1172+         DC    C'0200'
                           1173+         ALIGN WORD
002A74  196E               1174+         DC    AL2(PARMARA)
                           1175 N00075   $FIXT FT=(F00062),ST=(S00066)
002A76  0101               1176+N00075   DC    A(@FIXT)
002A78  2D8E               1177+         DC    A(F00062)
                           1178 N00076   $FIXT FT=(F00201)
002A7A  0101               1179+N00076   DC    A(@FIXT)
002A7C  346E               1180+         DC    A(F00201)
                           1181 N00077   $FIXT FT=(F00203)
002A7E  0101               1182+N00077   DC    A(@FIXT)
002A80  34C8               1183+         DC    A(F00203)
                           1184 N00078   $QUXX T7A28,REPT=L7A28,PLNG=4,PARM=0400,QT=(Q00060),          X
002A82  0400               1185+N00078   DC    A(@QUXX)
002A84  2AAA               1186+         DC    AL2(N00082)
002A86  3EEE               1187+         DC    A(T7A28)
002A88  3F02               1188+         DC    AL2(L7A28)
002A8A  0004               1189+         DC    AL2(4)
002A8C  F0F4F0F0           1190+         DC    C'0400'
                           1191+         ALIGN WORD
002A90  196E               1192+         DC    AL2(PARMARA)
                           1193 N00079   $QUXX T7A28,REPT=L7A28,PLNG=4,PARM=0400,QT=(Q00060),          X
002A92  0400               1194+N00079   DC    A(@QUXX)
002A94  2AA6               1195+         DC    AL2(N00081)
002A96  3EEE               1196+         DC    A(T7A28)
002A98  3F02               1197+         DC    AL2(L7A28)
002A9A  0004               1198+         DC    AL2(4)
002A9C  F0F4F0F0           1199+         DC    C'0400'
                           1200+         ALIGN WORD
002AA0  196E               1201+         DC    AL2(PARMARA)
                           1202 N00080   $FIXT FT=(F00062),ST=(S00066)
002AA2  0101               1203+N00080   DC    A(@FIXT)
002AA4  2D8E               1204+         DC    A(F00062)
                           1205 N00081   $FIXT FT=(F00216)
002AA6  0101               1206+N00081   DC    A(@FIXT)
002AA8  3522               1207+         DC    A(F00216)
                           1208 N00082   $FIXT FT=(F00218)
002AAA  0101               1209+N00082   DC    A(@FIXT)
002AAC  357C               1210+         DC    A(F00218)
                           1211 N00083   $QUXX T7A28,REPT=L7A28,PLNG=4,PARM=0800,QT=(Q00060),          Y
002AAE  0400               1212+N00083   DC    A(@QUXX)
002AB0  2AD6               1213+         DC    AL2(N00087)
002AB2  3EEE               1214+         DC    A(T7A28)
002AB4  3F02               1215+         DC    AL2(L7A28)
002AB6  0004               1216+         DC    AL2(4)
002AB8  F0F8F0F0           1217+         DC    C'0800'
                           1218+         ALIGN WORD
002ABC  196E               1219+         DC    AL2(PARMARA)
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                          1220 N00084   $QUXX T7A28,REPT=L7A28,PLNG=4,PARM=0800,QT=(Q00060),          X
002ABE  0400              1221+N00084   DC    A(@QUXX)
002AC0  2AD2              1222+         DC    AL2(N00086)
002AC2  3EEE              1223+         DC    A(T7A28)
002AC4  3F02              1224+         DC    AL2(L7A28)
002AC6  0004              1225+         DC    AL2(4)
002AC8  F0F8F0F0          1226+         DC    C'0800'
                          1227+         ALIGN WORD
002ACC  196E              1228+         DC    AL2(PARMARA)
                          1229 N00085   $FIXT FT=(F00062),ST=(S00066)
002ACE  0101              1230+N00085   DC    A(@FIXT)
002AD0  2D8E              1231+         DC    A(F00062)
                          1232 N00086   $FIXT FT=(F00231)
002AD2  0101              1233+N00086   DC    A(@FIXT)
002AD4  35D6              1234+         DC    A(F00231)
                          1235 N00087   $FIXT FT=(F00233)
002AD6  0101              1236+N00087   DC    A(@FIXT)
002AD8  3630              1237+         DC    A(F00233)
                          1238 N00088   $QUXX T7A28,REPT=L7A28,PLNG=4,PARM=1000,QT=(Q00060),          X
002ADA  0400              1239+N00088   DC    A(@QUXX)
002ADC  2B02              1240+         DC    AL2(N00092)
002ADE  3EEE              1241+         DC    A(T7A28)
002AE0  3F02              1242+         DC    AL2(L7A28)
002AE2  0004              1243+         DC    AL2(4)
002AE4  F1F0F0F0          1244+         DC    C'1000'
                          1245+         ALIGN WORD
002AE8  196E              1246+         DC    AL2(PARMARA)
                          1247 N00089   $QUXX T7A28,REPT=L7A28,PLNG=4,PARM=1000,QT=(Q00060),          X
002AEA  0400              1248+N00089   DC    A(@QUXX)
002AEC  2AFE              1249+         DC    AL2(N00091)
002AEE  3EEE              1250+         DC    A(T7A28)
002AF0  3F02              1251+         DC    AL2(L7A28)
002AF2  0004              1252+         DC    AL2(4)
002AF4  F1F0F0F0          1253+         DC    C'1000'
                          1254+         ALIGN WORD
002AF8  196E              1255+         DC    AL2(PARMARA)
                          1256 N00090   $FIXT FT=(F00062),ST=(S00066)
002AFA  0101              1257+N00090   DC    A(@FIXT)
002AFC  2D8E              1258+         DC    A(F00062)
                          1259 N00091   $FIXT FT=(F00246)
002AFE  0101              1260+N00091   DC    A(@FIXT)
002B00  368A              1261+         DC    A(F00246)
                          1262 N00092   $FIXT FT=(F00248)
002B02  0101              1263+N00092   DC    A(@FIXT)
002B04  36E4              1264+         DC    A(F00248)
                          1265 N00093   $QUXX T7A28,REPT=L7A28,PLNG=4,PARM=2000,QT=(Q00060),          X
002B06  0400              1266+N00093   DC    A(@QUXX)
002B08  2B2E              1267+         DC    AL2(N00097)
002B0A  3EEE              1268+         DC    A(T7A28)
002B0C  3F02              1269+         DC    AL2(L7A28)
002B0E  0004              1270+         DC    AL2(4)
002B10  F2F0F0F0          1271+         DC    C'2000'
                          1272+         ALIGN WORD
002B14  196E              1273+         DC    AL2(PARMARA)
                          1274 N00094   $QUXX T7A28,REPT=L7A28,PLNG=4,PARM=2000,QT=(Q00060),          X
002B16  0400              1275+N00094   DC    A(@QUXX)
002B18  2B2A              1276+         DC    AL2(N00096)
002B1A  3EEE              1277+         DC    A(T7A28)
002B1C  3F02              1278+         DC    AL2(L7A28)
002B1E  0004              1279+         DC    AL2(4)
002B20  F2F0F0F0          1280+         DC    C'2000'
                          1281+         ALIGN WORD
002B24  196E              1282+         DC    AL2(PARMARA)
                          1283 N00095   $FIXT FT=(F00062),ST=(S00066)
002B26  0101              1284+N00095   DC    A(@FIXT)
002B28  2D8E              1285+         DC    A(F00062)
                          1286 N00096   $FIXT FT=(F00261)
002B2A  0101              1287+N00096   DC    A(@FIXT)
002B2C  373E              1288+         DC    A(F00261)
                          1289 N00097   $FIXT FT=(F00263)
002B2E  0101              1290+N00097   DC    A(@FIXT)
002B30  3798              1291+         DC    A(F00263)
                          1292 N00098   $QUXX T7A28,REPT=L7A28,PLNG=4,PARM=4000,QT=(Q00060),          X
002B32  0400              1293+N00098   DC    A(@QUXX)
002B34  2B5A              1294+         DC    AL2(N00102)
002B36  3EEE              1295+         DC    A(T7A28)
002B38  3F02              1296+         DC    AL2(L7A28)
002B3A  0004              1297+         DC    AL2(4)
002B3C  F4F0F0F0          1298+         DC    C'4000'
                          1299+         ALIGN WORD
002B40  196E              1300+         DC    AL2(PARMARA)
                          1301 N00099   $QUXX T7A28,REPT=L7A28,PLNG=4,PARM=4000,QT=(Q00060),          X
002B42  0400              1302+N00099   DC    A(@QUXX)
002B44  2B56              1303+         DC    AL2(N00101)
002B46  3EEE              1304+         DC    A(T7A28)
002B48  3F02              1305+         DC    AL2(L7A28)
002B4A  0004              1306+         DC    AL2(4)
002B4C  F4F0F0F0          1307+         DC    C'4000'
                          1308+         ALIGN WORD
002B50  196E              1309+         DC    AL2(PARMARA)
                          1310 N00100   $FIXT FT=(F00062),ST=(S00066)
002B52  0101              1311+N00100   DC    A(@FIXT)
002B54  2D8E              1312+         DC    A(F00062)
                          1313 N00101   $FIXT FT=(F00276)
002B56  0101              1314+N00101   DC    A(@FIXT)
002B58  37F2              1315+         DC    A(F00276)
                          1316 N00102   $FIXT FT=(F00278)
002B5A  0101              1317+N00102   DC    A(@FIXT)
002B5C  384C              1318+         DC    A(F00278)
                          1319 N00103   $QUXX T7A28,REPT=L7A28,PLNG=4,PARM=8000,QT=(Q00060),          X
002B5E  0400              1320+N00103   DC    A(@QUXX)
002B60  2B86              1321+         DC    AL2(N00107)
002B62  3EEE              1322+         DC    A(T7A28)
002B64  3F02              1323+         DC    AL2(L7A28)
002B66  0004              1324+         DC    AL2(4)
002B68  F8F0F0F0          1325+         DC    C'8000'
                          1326+         ALIGN WORD
002B6C  196E              1327+         DC    AL2(PARMARA)
                          1328 N00104   $QUXX T7A28,REPT=L7A28,PLNG=4,PARM=8000,QT=(Q00060),          X
002B6E  0400              1329+N00104   DC    A(@QUXX)
002B70  2B82              1330+         DC    AL2(N00106)
002B72  3EEE              1331+         DC    A(T7A28)
002B74  3F02              1332+         DC    AL2(L7A28)
002B76  0004              1333+         DC    AL2(4)
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 LOCTR  OBJECT TEXT        STMT SOURCE STATEMENT                                    COPYRIGHT IBM CORP 1976

002B78  F8F0F0F0          1334+         DC    C'8000'
                          1335+         ALIGN WORD
002B7C  196E              1336+         DC    AL2(PARMARA)
                          1337 N00105   $FIXT FT=(F00062),ST=(S00066)
002B7E  0101              1338+N00105   DC    A(@FIXT)
002B80  2D8E              1339+         DC    A(F00062)
                          1340 N00106   $FIXT FT=(F00291)
002B82  0101              1341+N00106   DC    A(@FIXT)
002B84  38A6              1342+         DC    A(F00291)
                          1343 N00107   $FIXT FT=(F00293)
002B86  0101              1344+N00107   DC    A(@FIXT)
002B88  3900              1345+         DC    A(F00293)
002B8A  0000              1346          DC    AL2(DUMMY)
002B8C                    1347 ENTPT    EQU   *
                          1348 ********************************************************************************
                          1349 ********************************************************************************
                          1350 **                                                                            **
                          1351 **                          ENTRY POINT TABLE                                 **
                          1352 **                                                                            **
                          1353 ********************************************************************************
                          1354 ********************************************************************************
                          1355          ENTPT EP=A,STEP=00001
002B8C  C140              1356+         DC    CL2'A'
002B8E  26B0              1357+         DC    A(N00001)
                          1358          ENTPT EP=C,STEP=00011
002B90  C340              1359+         DC    CL2'C'
002B92  2726              1360+         DC    A(N00011)
                          1361          ENTPT EP=G,STEP=00068
002B94  C740              1362+         DC    CL2'G'
002B96  2A2A              1363+         DC    A(N00068)
002B98  0000              1364          DC    AL2(DUMMY)
                          1365 ********************************************************************************
                          1366 ********************************************************************************
                          1367 **                                                                            **
                          1368 **                          MESSAGE TABLE                                     **
                          1369 **                                                                            **
                          1370 ********************************************************************************
                          1371 ********************************************************************************
002B9A                    1372 F00086   EQU   *
002B9A  0004              1373          DC    AL2(0004)
002B9C  0010              1374          DC    A(0016)
002B9E  C5E7C3C8C1D5C7C54 1375          DC    CL0016'EXCHANGE CARD(S)'
002BAE  0010              1376          DC    A(0016)
002BB0  C1F260C4F240C1D5C 1377          DC    CL0016'A2-D2 AND A2-C2 '
002BC0  001C              1378          DC    A(0028)
002BC2  C9C640E3C8C9E240C 1379          DC    CL0028'IF THIS FAILS TO CORRECT THE'
002BDE  001A              1380          DC    A(0026)
002BE0  D7D9D6C2D3C5D440C 1381          DC    CL0026'PROBLEM EXCHANGE BOARD A2.'
002BFA                    1382 F00091   EQU   *
002BFA  0004              1383          DC    AL2(0004)
002BFC  0010              1384          DC    A(0016)
002BFE  C5E7C3C8C1D5C7C54 1385          DC    CL0016'EXCHANGE CARD(S)'
002C0E  0010              1386          DC    A(0016)
002C10  C1F260C4F240C1D5C 1387          DC    CL0016'A2-D2 AND A2-C2 '
002C20  001C              1388          DC    A(0028)
002C22  C9C640E3C8C9E240C 1389          DC    CL0028'IF THIS FAILS TO CORRECT THE'
002C3E  001A              1390          DC    A(0026)
002C40  D7D9D6C2D3C5D440C 1391          DC    CL0026'PPOBLEM EXCHANGE BOARD A2.'
002C5A                    1392 F00096   EQU   *
002C5A  0004              1393          DC    AL2(0004)
002C5C  0010              1394          DC    A(0016)
002C5E  C5E7C3C8C1D5C7C54 1395          DC    CL0016'EXCHANGE CARD(S)'
002C6E  0010              1396          DC    A(0016)
002C70  C1F260C4F240C1D5C 1397          DC    CL0016'A2-D2 AND A2-C2 '
002C80  001C              1398          DC    A(0028)
002C82  C9C640E3C8C9E240C 1399          DC    CL0028'IF THIS FAILS TO CORRECT THE'
002C9E  001A              1400          DC    A(0026)
002CA0  D7D9D6C2D3C5D440C 1401          DC    CL0026'PROBLEM EXCHANGE BOARD A2.'
002CBA                    1402 F00101   EQU   *
002CBA  0001              1403          DC    AL2(0001)
002CBC  0010              1404          DC    A(0016)
002CBE  C7D6E3D640D4C1D74 1405          DC    CL0016'GOTO MAP 7A13-A '
002CCE                    1406 F00107   EQU   *
002CCE  0004              1407          DC    AL2(0004)
002CD0  0010              1408          DC    A(0016)
002CD2  C5E7C3C8C1D5C7C54 1409          DC    CL0016'EXCHANGE CARD(S)'
002CE2  0010              1410          DC    A(0016)
002CE4  C1F260C4F240C1D5C 1411          DC    CL0016'A2-D2 AND A2-C2 '
002CF4  001C              1412          DC    A(0028)
002CF6  C9C640E3C8C9E240C 1413          DC    CL0028'IF THIS FAILS TO CORRECT THE'
002D12  001A              1414          DC    A(0026)
002D14  D7D9D6C2D3C5D440C 1415          DC    CL0026'PROBLEM EXCHANGE BOARD A2.'
002D2E                    1416 F00173   EQU   *
002D2E  0004              1417          DC    AL2(0004)
002D30  0010              1418          DC    A(0016)
002D32  C5E7C3C8C1D5C7C54 1419          DC    CL0016'EXCHANGE CARD(S)'
002D42  0010              1420          DC    A(0016)
002D44  C1F260C4F240C1D5C 1421          DC    CL0016'A2-D2 AND A2-C2 '
002D54  001C              1422          DC    A(0028)
002D56  C9C640E3C8C9E240C 1423          DC    CL0028'IF THIS FAILS TO CORRECT THE'
002D72  001A              1424          DC    A(0026)
002D74  D7D9D6C2D3C5D440C 1425          DC    CL0026'PROBLEM EXCHANGE BOARD A2.'
002D8E                    1426 F00062   EQU   *
002D8E  0005              1427          DC    AL2(0005)
002D90  001A              1428          DC    A(0026)
002D92  60C9D5E2D7C5C3E34 1429          DC    CL0026'-INSPECT AND RESEAT CABLES'
002DAC  001A              1430          DC    A(0026)
002DAE  C2C5E3E6C5C5D540C 1431          DC    CL0026'BETWEEN ATTACH. AND 4963. '
002DC8  0020              1432          DC    A(0032)
002DCA  60C5E7C3C8C1D5C7C 1433          DC    CL0032'-EXCHANGE THE 4963 ATTACH. CARD.'
002DEA  0016              1434          DC    A(0022)
002DEC  60C5E7C3C8C1D5C7C 1435          DC    CL0022'-EXCHANGE CARD -A2-C2.'
002E02  0016              1436          DC    A(0022)
002E04  60C5E7C3C8C1D5C7C 1437          DC    CL0022'-EXCHANGE CARD -A2-D2.'
002E1A                    1438 F00306   EQU   *
002E1A  0003              1439          DC    AL2(0003)
002E1C  0010              1440          DC    A(0016)
002E1E  C5E7C3C8C1D5C7C54 1441          DC    CL0016'EXCHANGE CARD(S)'
002E2E  0024              1442          DC    A(0036)
002E30  60C1F260C3F26040C 1443          DC    CL0036'-A2-C2- IF THIS FAILS TO CORRECT THE'
002E54  001E              1444          DC    A(0030)
002E56  D7D9D6C2D3C5D440C 1445          DC    CL0030'PROBLEM EXCHANGE CARD -A2-D2. '
002E74                    1446 F00308   EQU   *
002E74  0003              1447          DC    AL2(0003)
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 LOCTR  OBJECT TEXT         STMT SOURCE STATEMENT                                  COPYRIGHT IBM CORP 1976

002E76  0010               1448          DC    A(0016)
002E78  C5E7C3C8C1D5C7C54  1449          DC    CL0016'EXCHANGE CARD(S)'
002E88  0024               1450          DC    A(0036)
002E8A  60C1F260C4F26040C  1451          DC    CL0036'-A2-D2- IF THIS FAILS TO CORRECT THE'
002EAE  001E               1452          DC    A(0030)
002EB0  D7D9D6C2D3C5D440C  1453          DC    CL0030'PROBLEM EXCHANGE CARD -A2-C2. '
002ECE                     1454 F00321   EQU   *
002ECE  0003               1455          DC    AL2(0003)
002ED0  0010               1456          DC    A(0016)
002ED2  C5E7C3C8C1D5C7C54  1457          DC    CL0016'EXCHANGE CARD(S)'
002EE2  0024               1458          DC    A(0036)
002EE4  60C1F260C3F26040C  1459          DC    CL0036'-A2-C2- IF THIS FAILS TO CORRECT THE'
002F08  001E               1460          DC    A(0030)
002F0A  D7D9D6C2D3C5D440C  1461          DC    CL0030'PROBLEM EXCHANGE CARD -A2-D2. '
002F28                     1462 F00323   EQU   *
002F28  0003               1463          DC    AL2(0003)
002F2A  0010               1464          DC    A(0016)
002F2C  C5E7C3C8C1D5C7C54  1465          DC    CL0016'EXCHANGE CARD(S)'
002F3C  0024               1466          DC    A(0036)
002F3E  60C1F260C4F26040C  1467          DC    CL0036'-A2-D2- IF THIS FAILS TO CORRECT THE'
002F62  001E               1468          DC    A(0030)
002F64  D7D9D6C2D3C5D440C  1469          DC    CL0030'PROBLEM EXCHANGE CARD -A2-C2. '
002F82                     1470 F00336   EQU   *
002F82  0003               1471          DC    AL2(0003)
002F84  0010               1472          DC    A(0016)
002F86  C5E7C3C8C1D5C7C54  1473          DC    CL0016'EXCHANGE CARD(S)'
002F96  0024               1474          DC    A(0036)
002F98  60C1F260C3F26040C  1475          DC    CL0036'-A2-C2- IF THIS FAILS TO CORRECT THE'
002FBC  001E               1476          DC    A(0030)
002FBE  D7D9D6C2D3C5D440C  1477          DC    CL0030'PROBLEM EXCHANGE CARD -A2-D2. '
002FDC                     1478 F00338   EQU   *
002FDC  0003               1479          DC    AL2(0003)
002FDE  0010               1480          DC    A(0016)
002FE0  C5E7C3C8C1D5C7C54  1481          DC    CL0016'EXCHANGE CARD(S)'
002FF0  0024               1482          DC    A(0036)
002FF2  60C1F260C4F26040C  1483          DC    CL0036'-A2-D2- IF THIS FAILS TO CORRECT THE'
003016  001E               1484          DC    A(0030)
003018  D7D9D6C2D3C5D440C  1485          DC    CL0030'PROBLEM EXCHANGE CARD -A2-C2. '
003036                     1486 F00351   EQU   *
003036  0003               1487          DC    AL2(0003)
003038  0010               1488          DC    A(0016)
00303A  C5E7C3C8C1D5C7C54  1489          DC    CL0016'EXCHANGE CARD(S)'
00304A  0024               1490          DC    A(0036)
00304C  60C1F260C3F26040C  1491          DC    CL0036'-A2-C2- IF THIS FAILS TO CORRECT THE'
003070  001E               1492          DC    A(0030)
003072  D7D9D6C2D3C5D440C  1493          DC    CL0030'PROBLEM EXCHANGE CARD -A2-D2. '
003090                     1494 F00353   EQU   *
003090  0003               1495          DC    AL2(0003)
003092  0010               1496          DC    A(0016)
003094  C5E7C3C8C1D5C7C54  1497          DC    CL0016'EXCHANGE CARD(S)'
0030A4  0024               1498          DC    A(0036)
0030A6  60C1F260C4F26040C  1499          DC    CL0036'-A2-D2- IF THIS FAILS TO CORRECT THE'
0030CA  001E               1500          DC    A(0030)
0030CC  D7D9D6C2D3C5D440C  1501          DC    CL0030'PROBLEM EXCHANGE CARD -A2-C2. '
0030EA                     1502 F00366   EQU   *
0030EA  0003               1503          DC    AL2(0003)
0030EC  0010               1504          DC    A(0016)
0030EE  C5E7C3C8C1D5C7C54  1505          DC    CL0016'EXCHANGE CARD(S)'
0030FE  0024               1506          DC    A(0036)
003100  60C1F260C3F26040C  1507          DC    CL0036'-A2-C2- IF THIS FAILS TO CORRECT THE'
003124  001E               1508          DC    A(0030)
003126  D7D9D6C2D3C5D440C  1509          DC    CL0030'PROBLEM EXCHANGE CARD -A2-D2. '
003144                     1510 F00368   EQU   *
003144  0003               1511          DC    AL2(0003)
003146  0010               1512          DC    A(0016)
003148  C5E7C3C8C1D5C7C54  1513          DC    CL0016'EXCHANGE CARD(S)'
003158  0024               1514          DC    A(0036)
00315A  60C1F260C4F26040C  1515          DC    CL0036'-A2-D2- IF THIS FAILS TO CORRECT THE'
00317E  001E               1516          DC    A(0030)
003180  D7D9D6C2D3C5D440C  1517          DC    CL0030'PROBLEM EXCHANGE CARD -A2-C2. '
00319E                     1518 F00381   EQU   *
00319E  0003               1519          DC    AL2(0003)
0031A0  0010               1520          DC    A(0016)
0031A2  C5E7C3C8C1D5C7C54  1521          DC    CL0016'EXCHANGE CARD(S)'
0031B2  0024               1522          DC    A(0036)
0031B4  60C1F260C3F26040C  1523          DC    CL0036'-A2-C2- IF THIS FAILS TO CORRECT THE'
0031D8  001E               1524          DC    A(0030)
0031DA  D7D9D6C2D3C5D440C  1525          DC    CL0030'PROBLEM EXCHANGE CARD -A2-D2. '
0031F8                     1526 F00383   EQU   *
0031F8  0003               1527          DC    AL2(0003)
0031FA  0010               1528          DC    A(0016)
0031FC  C5E7C3C8C1D5C7C54  1529          DC    CL0016'EXCHANGE CARD(S)'
00320C  0024               1530          DC    A(0036)
00320E  60C1F260C4F26040C  1531          DC    CL0036'-A2-D2- IF THIS FAILS TO CORRECT THE'
003232  001E               1532          DC    A(0030)
003234  D7D9D6C2D3C5D440C  1533          DC    CL0030'PROBLEM EXCHANGE CARD -A2-C2. '
003252                     1534 F00396   EQU   *
003252  0003               1535          DC    AL2(0003)
003254  0010               1536          DC    A(0016)
003256  C5E7C3C8C1D5C7C54  1537          DC    CL0016'EXCHANGE CARD(S)'
003266  0024               1538          DC    A(0036)
003268  60C1F260C3F26040C  1539          DC    CL0036'-A2-C2- IF THIS FAILS TO CORRECT THE'
00328C  001E               1540          DC    A(0030)
00328E  D7D9D6C2D3C5D440C  1541          DC    CL0030'PROBLEM EXCHANGE CARD -A2-D2. '
0032AC                     1542 F00398   EQU   *
0032AC  0003               1543          DC    AL2(0003)
0032AE  0010               1544          DC    A(0016)
0032B0  C5E7C3C8C1D5C7C54  1545          DC    CL0016'EXCHANGE CARD(S)'
0032C0  0024               1546          DC    A(0036)
0032C2  60C1F260C4F26040C  1547          DC    CL0036'-A2-D2- IF THIS FAILS TO CORRECT THE'
0032E6  001E               1548          DC    A(0030)
0032E8  D7D9D6C2D3C5D440C  1549          DC    CL0030'PROBLEM EXCHANGE CARD -A2-C2. '
003306                     1550 F00411   EQU   *
003306  0003               1551          DC    AL2(0003)
003308  0010               1552          DC    A(0016)
00330A  C5E7C3C8C1D5C7C54  1553          DC    CL0016'EXCHANGE CARD(S)'
00331A  0024               1554          DC    A(0036)
00331C  60C1F260C3F26040C  1555          DC    CL0036'-A2-C2- IF THIS FAILS TO CORRECT THE'
003340  001E               1556          DC    A(0030)
003342  D7D9D6C2D3C5D440C  1557          DC    CL0030'PROBLEM EXCHANGE CARD -A2-D2. '
003360                     1558 F00413   EQU   *
003360  0003               1559          DC    AL2(0003)
003362  0010               1560          DC    A(0016)
003364  C5E7C3C8C1D5C7C54  1561          DC    CL0016'EXCHANGE CARD(S)'
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003374  0024               1562          DC    A(0036)
003376  60C1F260C4F26040C  1563          DC    CL0036'-A2-D2- IF THIS FAILS TO CORRECT THE'
003396  001E               1564          DC    A(0030)
00339C  D7D9D6C2D3C5D440C  1565          DC    CL0030'PROBLEM EXCHANGE CARD -A2-C2. '
0033BA                     1566 F00186   EQU   *
0033BA  0003               1567          DC    AL2(0003)
0033BC  0010               1568          DC    A(0016)
0033BE  C5E7C3C8C1D5C7C54  1569          DC    CL0016'EXCHANGE CARD(S)'
0033CE  0024               1570          DC    A(0036)
0033D0  60C1F260C3F26040C  1571          DC    CL0036'-A2-C2- IF THIS FAILS TO CORRECT THE'
0033F4  001E               1572          DC    A(0030)
0033F6  D7D9D6C2D3C5D440C  1573          DC    CL0030'PROBLEM EXCHANGE CARD -A2-D2. '
003414                     1574 F00188   EQU   *
003414  0003               1575          DC    AL2(0003)
003416  0010               1576          DC    A(0016)
003418  C5E7C3C8C1D5C7C54  1577          DC    CL0016'EXCHANGE CARD(S)'
003428  0024               1578          DC    A(0036)
00342A  60C1F260C4F26040C  1579          DC    CL0036'-A2-D2- IF THIS FAILS TO CORRECT THE'
00344E  001E               1580          DC    A(0030)
003450  D7D9D6C2D3C5D440C  1581          DC    CL0030'PROBLEM EXCHANGE CARD -A2-C2. '
00346E                     1582 F00201   EQU   *
00346E  0003               1583          DC    AL2(0003)
003470  0010               1584          DC    A(0016)
003472  C5E7C3C8C1D5C7C54  1585          DC    CL0016'EXCHANGE CARD(S)'
003482  0024               1586          DC    A(0036)
003484  60C1F260C3F26040C  1587          DC    CL0036'-A2-C2- IF THIS FAILS TO COPRECT THE'
0034A8  001E               1588          DC    A(0030)
0034AA  D7D9D6C2D3C5D440C  1589          DC    CL0030'PROBLEM EXCHANGE CARD -A2-D2. '
0034C8                     1590 F00203   EQU   *
0034C8  0003               1591          DC    AL2(0003)
0034CA  0010               1592          DC    A(0016)
0034CC  C5E7C3C8C1D5C7C54  1593          DC    CL0016'EXCHANGE CARD(S)'
0034DC  0024               1594          DC    A(0036)
0034DE  60C1F260C4F26040C  1595          DC    CL0036'-A2-D2- IF THIS FAILS TO CORRECT THE'
003502  001E               1596          DC    A(0030)
003504  D7D9D6C2D3C5D440C  1597          DC    CL0030'PROBLEM EXCHANGE CARD -A2-C2. '
003522                     1598 F00216   EQU   *
003522  0003               1599          DC    AL2(0003)
003524  0010               1600          DC    A(0016)
003526  C5E7C3C8C1D5C7C54  1601          DC    CL0016'EXCHANGE CARD(S)'
003536  0024               1602          DC    A(0036)
003538  60C1F260C3F26040C  1603          DC    CL0036'-A2-C2- IF THIS FAILS TO CORRECT THE'
00355C  001E               1604          DC    A(0030)
00355E  D7D9D6C2D3C5D440C  1605          DC    CL0030'PROBLEM EXCHANGE CARD -A2-D2. '
00357C                     1606 F00218   EQU   *
00357C  0003               1607          DC    AL2(0003)
00357E  0010               1608          DC    A(0016)
003580  C5E7C3C8C1D5C7C54  1609          DC    CL0016'EXCHANGE CARD(S)'
003590  0024               1610          DC    A(0036)
003592  60C1F260C4F26040C  1611          DC    CL0036'-A2-D2- IF THIS FAILS TO CORRECT THE'
0035B6  001E               1612          DC    A(0030)
0035B8  D7D9D6C2D3C5D440C  1613          DC    CL0030'PROBLEM EXCHANGE CARD -A2-C2. '
0035D6                     1614 F00231   EQU   *
0035D6  0003               1615          DC    AL2(0003)
0035D8  0010               1616          DC    A(0016)
0035DA  C5E7C3C8C1D5C7C54  1617          DC    CL0016'EXCHANGE CARD(S)'
0035EA  0024               1618          DC    A(0036)
0035EC  60C1F260C3F26040C  1619          DC    CL0036'-A2-C2- IF THIS FAILS TO CORRECT THE'
003610  001E               1620          DC    A(0030)
003612  D7D9D6C2D3C5D440C  1621          DC    CL0030'PROBLEM EXCHANGE CARD -A2-D2. '
003630                     1622 F00233   EQU   *
003630  0003               1623          DC    AL2(0003)
003632  0010               1624          DC    A(0016)
003634  C5E7C3C8C1D5C7C54  1625          DC    CL0016'EXCHANGE CARD(S)'
003644  0024               1626          DC    A(0036)
003646  60C1F260C4F26040C  1627          DC    CL0036'-A2-D2- IF THIS FAILS TO CORRECT THE'
00366A  001E               1628          DC    A(0030)
00366C  D7D9D6C2D3C5D440C  1629          DC    CL0030'PROBLEM EXCHANGE CARD -A2-C2. '
00368A                     1630 F00246   EQU   *
00368A  0003               1631          DC    AL2(0003)
00368C  0010               1632          DC    A(0016)
00368E  C5E7C3C8C1D5C7C54  1633          DC    CL0016'EXCHANGE CARD(S)'
00369E  0024               1634          DC    A(0036)
0036A0  60C1F260C3F26040C  1635          DC    CL0036'-A2-C2- IF THIS FAILS TO CORRECT THE'
0036C4  001E               1636          DC    A(0030)
0036C6  D7D9D6C2D3C5D440C  1637          DC    CL0030'PROBLEM EXCHANGE CARD -A2-D2. '
0036E4                     1638 F00248   EQU   *
0036E4  0003               1639          DC    AL2(0003)
0036E6  0010               1640          DC    A(0016)
0036E8  C5E7C3C8C1D5C7C54  1641          DC    CL0016'EXCHANGE CARD(S)'
0036F8  0024               1642          DC    A(0036)
0036FA  60C1F260C4F26040C  1643          DC    CL0036'-A2-D2- IF THIS FAILS TO CORRECT THE'
00371E  001E               1644          DC    A(0030)
003720  D7D9D6C2D3C5D440C  1645          DC    CL0030'PROBLEM EXCHANGE CARD -A2-C2. '
00373E                     1646 F00261   EQU   *
00373E  0003               1647          DC    AL2(0003)
003740  0010               1648          DC    A(0016)
003742  C5E7C3C8C1D5C7C54  1649          DC    CL0016'EXCHANGE CARD(S)'
003752  0024               1650          DC    A(0036)
003754  60C1F260C3F26040C  1651          DC    CL0036'-A2-C2- IF THIS FAILS TO CORRECT THE'
003778  001E               1652          DC    A(0030)
00377A  D7D9D6C2D3C5D440C  1653          DC    CL0030'PROBLEM EXCHANGE CARD -A2-D2. '
003798                     1654 F00263   EQU   *
003798  0003               1655          DC    AL2(0003)
00379A  0010               1656          DC    A(0016)
00379C  C5E7C3C8C1D5C7C54  1657          DC    CL0016'EXCHANGE CARD(S)'
0037AC  0024               1658          DC    A(0036)
0037AE  60C1F260C4F26040C  1659          DC    CL0036'-A2-D2- IF THIS FAILS TO CORRECT THE'
0037D2  001E               1660          DC    A(0030)
0037D4  D7D9D6C2D3C5D440C  1661          DC    CL0030'PROBLEM EXCHANGE CARD -A2-C2. '
0037F2                     1662 F00276   EQU   *
0037F2  0003               1663          DC    AL2(0003)
0037F4  0010               1664          DC    A(0016)
0037F6  C5E7C3C8C1D5C7C54  1665          DC    CL0016'EXCHANGE CARD(S)'
003806  0024               1666          DC    A(0036)
003808  60C1F260C3F26040C  1667          DC    CL0036'-A2-C2- IF THIS FAILS TO CORRECT THE'
00382C  001E               1668          DC    A(0030)
00382E  D7D9D6C2D3C5D440C  1669          DC    CL0030'PROBLEM EXCHANGE CARD -A2-D2. '
00384C                     1670 F00278   EQU   *
00384C  0003               1671          DC    AL2(0003)
00384E  0010               1672          DC    A(0016)
003850  C5E7C3C8C1D5C7C54  1673          DC    CL0016'EXCHANGE CARD(S)'
003860  0024               1674          DC    A(0036)
003862  60C1F260C4F26040C  1675          DC    CL0036'-A2-D2- IF THIS FAILS TO CORRECT THE'
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 LOCTR  OBJECT TEXT        STMT SOURCE STATEMENT                                  COPYRIGHT IBM CORP 1976

003886  001E              1676          DC    A(0030)
003888  D7D9D6C2D3C5D440C 1677          DC    CL0030'PROBLEM EXCHANGE CARD -A2-C2. '
0038A6                    1678 F00291   EQU   *
0038A6  0003              1679          DC    AL2(0003)
0038A8  0010              1680          DC    A(0016)
0038AA  C5E7C3C8C1D5C7C54 1681          DC    CL0016'EXCHANGE CARD(S)'
0038BA  0024              1682          DC    A(0036)
0038BC  60C1F260C3F26040C 1683          DC    CL0036'-A2-C2- IF THIS FAILS TO CORRECT THE'
0038E0  001E              1684          DC    A(0030)
0038E2  D7D9D6C2D3C5D440C 1685          DC    CL0030'PROBLEM EXCHANGE CARD -A2-D2. '
003900                    1686 F00293   EQU   *
003900  0003              1687          DC    AL2(0003)
003902  0010              1688          DC    A(0016)
003904  C5E7C3C8C1D5C7C54 1689          DC    CL0016'EXCHANGE CARD(S)'
003914  0024              1690          DC    A(0036)
003916  60C1F260C4F26040C 1691          DC    CL0036'-A2-D2- IF THIS FAILS TO CORRECT THE'
00393A  001E              1692          DC    A(0030)
00393C  D7D9D6C2D3C5D440C 1693          DC    CL0030'PROBLEM EXCHANGE CARD -A2-C2. '
                          1694          PDIT  00
00395A  0000              1696+OPTN1    DC    X'0000'                  PROGRAM OPTION CONTROL WORD 1
00395C  0000              1698+OPTN2    DC    X'0000'                  PROGRAM OPTION CONTROL WORD 2
                          1699+*                      BIT     HEX
000010                    1700+B48      EQU   16      0       8        PROBLEM PROGRAM CONTROL BITS
000011                    1701+B49      EQU   17      1       4        *
000012                    1702+B50      EQU   18      2       2        * THESE BITS ARE USED WITH THE
000013                    1703+B51      EQU   19      3       1        * SECOND OPTION WD   AND ARE TO
000014                    1704+B52      EQU   20      4       8        * BE ASSIGNED BY EACH PROGRAMMER
000015                    1705+B53      EQU   21      5       4        *
000016                    1706+B54      EQU   22      6       2        *
000017                    1707+B55      EQU   23      7       1        *
000018                    1708+B56      EQU   24      8       8        *
000019                    1709+B57      EQU   25      9       4        *
00001A                    1710+B58      EQU   26      10      2        *
00001B                    1711+B59      EQU   27      11      1        *
00001C                    1712+B60      EQU   28      12      8        *
00001D                    1713+B61      EQU   29      13      4        *
00001E                    1714+B62      EQU   30      14      2        *
00001F                    1715+B63      EQU   31      15      1        *
00001E                    1716+CH       EQU   30      14      2        CHARACTER SUPPLIED
00001F                    1717+CMP      EQU   31      15      1        COMPARE OPERATION
00395E  0000              1719+OPTN3    DC    X'0000'                  PPOGRAM OPTION CONTROL WORD 3
                          1720+*
                          1721+*  0  MYSTERY INTERRUPT     MI        8  CS STATUS IN PROGRESS    CS
                          1722+*  1  ERROR INTERRUPT       ER        9  CS AVAILABLE             CSA
                          1723+*  2  EXPECTED INTERRUPT    XI       10  CS STATUS INTERRUPT ERR  CE
                          1724+*  3  INTERRUPT RECEIVED    IN       11  ISB BITS ON (1-7)        ISBON
                          1725+*
                          1726+*  4  EXPECTED ERR/ATTENT   XE       12  TEST UNIT RESULTS VOID   NG
                          1727+*  5  HARD ERROR FOUND      HE       13  OIO CC ERROR             IOCC
                          1728+*  6  WRONG INTR LEVEL      $LE      14  NO INTERRUPT             NOIN
                          1729+*  7  NO INTR EXPECTED      NI       15  INTERRUPT CC ERROR       INCC
                          1730+*                      BIT     HEX
000020                    1731+MI       EQU   32      0       8        MYSTERY INTERRUPT HAPPENED
000021                    1732+ER       EQU   33      1       4        ERROR RECEIVED ON INTERRUPT
000022                    1733+XI       EQU   34      2       2        EXPECTED INTERRUPT CONTROL BIT
000023                    1734+IN       EQU   35      3       1        INTERRUPT RECEIVED CONTROL BIT
000024                    1735+XE       EQU   36      4       8        EXPECTED ERROR RESPONSE
000025                    1736+HE       EQU   37      5       4        HARD ERROR, 8 RETRIES
000026                    1737+$LE      EQU   38      6       2        INTERRUPT ON WRONG LEVEL ERROR
000027                    1738+NI       EQU   39      7       1        NO INTERRUPT EXPECTED E
000028                    1739+CS       EQU   40      8       8        CYCLE STATUS IN PROGRESS
000029                    1740+CSA      EQU   41      9       4        CYCLE STEAL AVAILABLE
00002A                    1741+CE       EQU   42      10      2        CYCLE STEAL STATUS INERRRUPT ERROR
00002B                    1742+ISBON    EQU   43      11      1        ISB BITS ON (1-7)
00002C                    1743+NG       EQU   44      12      8        TFST UNIT RESULTS NO GOOD
00002D                    1744+IOCC     EQU   45      13      4        OIO CC ERROR
00002E                    1745+NOIN     EQU   46      14      2        NO INTERRUPT
00002F                    1746+INCC     EQU   47      15      1        INTERRUPT CC ERROR
                          1747+*
                          1748+*      COMMON BUFFER FOR PRINTING DATA
                          1749+*
003960  0000              1751+$TUID    DC    A(*-*)                   TEST UNIT IDENTIFICATION
003962  0000              1752+$IOIN    DC    A(*-*)                   I/O AND INTR CONDITION CODES
003964  0000              1753+$ISB     DC    A(*-*)                   R7, INTR STATUS BYTE & DEV ADRS
003966  0000              1754+LSTIO    DC    A(*-*)                   ADRS OF LAST I/O + 4 BYTES
003968  0000              1755+DEV1     DC    A(*-*)                   DEVICE DEPENDENT DATA
00396A  0000              1756+DEV2     DC    A(*-*)                   *
00396C  0000              1757+DEV3     DC    A(*-*)                   *
00396E  0000              1758+DEV4     DC    A(*-*)                   CS STATUS ERROR ISB & INTR CC
003968                    1759+SCTID    EQU   DEV1                     PEAD ID BUFFER FOR IBIS & TERN
003970                    1760+DCBUF    EQU   *                        DCB BUFFER FOR LAST DCB USED
003970  0000              1761+DCB1     DC    A(*-*)                   LAST DCB TABLE, CONTROL WORD
003972  0000              1762+DCB2     DC    A(*-*)                   LAST DCB TABLE, DEV DEP WORD
003974  0000              1763+DCB3     DC    A(*-*)                   LAST DCB TABLE, DEV DEP WORD
003976  0000              1764+DCB4     DC    A(*-*)                   LAST DCB TABLE, DEV DEP WORD
003978  0000              1765+DCB5     DC    A(*-*)                   LAST DCB TABLE, DEV DEP WORD
00397A  0000              1766+DCB6     DC    A(*-*)                   LAST DCB TABLE, CHAIN ADRS
00397C  0000              1767+DCB7     DC    A(*-*)                   LAST DCB TABLE, BYTE COUNT
00397E  0000              1768+DCB8     DC    A(*-*)                   LAST DCB TABLE, BUFFER ADDRESS
                          1769+*
003980                    1770+CSBUF    EQU   *                        CYCLE STEAL DATA BUFFER
003980  0000              1771+CSTL1    DC    A(*-*)                   CS STATUS WD 0, RESIDUAL ADDRESS
003982  0000              1772+CSTL2    DC    A(*-*)                   CS STATUS WD 1, RESIDUAL COUNT
003984  0000              1773+CSTL3    DC    A(*-*)                   CS STATUS WD 2, RETRY CNT WD 1
003986  0000              1774+CSTL4    DC    A(*-*)                   CS STATUS WD 3, RETRY CNT WD 2
003988  0000              1775+CSTL5    DC    A(*-*)                   CS STATUS WD 4, ERROR STATUS WD 1
00398A  0000              1776+CSTL6    DC    A(*-*)                   CS STATUS WD 5, ERROR STATUS WD 2
00398C  0000              1777+CSTL7    DC    A(*-*)                   CS STATUS WD 6, LAST DCB ADDRESS
00398E  0000              1778+CSTL8    DC    A(*-*)                   CS STATUS WD 7, PREVIOUS HD/CYL
003990  0000              1779+CSTL9    DC    A(*-*)                   CS STATUS WD 8, CURRENT HD/CYL
003992  0000              1780+CST10    DC    A(*-*)                   CS STATUS WD 9, FLAG/SECTOR
003994  0000              1781+CST11    DC    A(*-*)                   CS STATUS WD 10, HEAD/CYLINDER
003996  0000              1782+CST12    DC    A(*-*)                   CS STATUS WD 11, DIAG BYTES 1, 2
003998  0000              1783+CST13    DC    A(*-*)                   CS STATUS WD 12, AND 3 + WRAP BYTE
                          1784+*
00399A  0000              1785+$SUBN    DC    A(*-*)                   LAST SUBROUTINE ADDRESS USED
00399C  00000000          1786+$DATA    DC    2A(*-*)                  OPTIONAL DATA
00399A  0021              1787+$INTL    DC    X'0021'                  INTERRUPT LEVEL REQUESTED
0039A2  0000              1788+TURTN    DC    A(*-*)                   TEST UNIT RETURN ADRS TO MDI
0039A4  00                1789+$DVID    DC    X'00'                    DEVICE ID
0039A6  19D0              1790+SVCAI    DC    A(DEVADD)                ADRS OF DEVICE ADDRESS
0039A8  0000              1791+         DC    A(*-*)                   IBIS CYLINDER ADDRESS
                          1792+*
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 LOCTR  OBJECT TEXT        STMT SOURCE STATEMENT                                  COPYRIGHT IBM CORP 1976

                          1793+*      THIS TEST UNIT WILL RETURN TO MDI WITHOUT DOING ANY PROGRAM
                          1794+*      FUNCTION. THE RESULTS THAT WERE SET UP IN THE RESULTS AREA ARE
                          1795+*      STILL VALID BUT A DIFFERENT TEST IS TO BE PERFORMED.
                          1796+*
0039AA  4020 3960 7A02    1797+T7A02    MVWI  X'7A02',$TUID              SET UP TEST UNIT ID
0039B0  5700              1798+         BXS   (R7)                       RETURN TO MDI SUPVR
                          1800          COPY  COMEQU
                          1801 ********************************************************************
                          1802 *                                                                  *
                          1803 *              EQUATED NAMES FOR SUPPORTED SVC'S                   *
                          1804 *                                                                  *
                          1805 ********************************************************************
000000                    1806 OUT      EQU   0                          OUT SVC
000001                    1807 OUTIN    EQU   1                          OUTIN SVC
000002                    1808 IDLE     EQU   2                          IDLE SVC
000003                    1809 IDLE5    EQU   3                          IDLE SVC - INDEPENDENT OF CPU TYPE
000004                    1810 CHNGE    EQU   4                          CHANGE LEVEL SVC
000005                    1811 PGMCK    EQU   5                          ALLOW RETURN ON PROGRAM CHECK SVC
000006                    1812 EXIT     EQU   6                          EXIT SVC
000007                    1813 TERM     EQU   7                          TERMINATE SVC
000008                    1814 RESET    EQU   8                          RESET DEVICE SVC
000009                    1815 RID      EQU   9                          READ ID SVC
00000A                    1816 START    EQU   10                         START CYCLE STEAL SVC
00000B                    1817 STCSS    EQU   11                         START CYCLE STEAL STATUS SVC
00000C                    1818 PREP     EQU   12                         PREPARE DEVICE SVC
00000D                    1819 READO    EQU   13                         READ WITH FUNCTION BIT 3 OFF SVC
00000E                    1820 READ1    EQU   14                         READ WITH FUNCTION BIT 3 ON SVC
00000F                    1821 RSTAT    EQU   15                         READ STATUS SVC
000010                    1822 WRITO    EQU   16                         WRITE WITH FUNCTION BIT 3 OFF SVC
000011                    1823 WRIT1    EQU   17                         WRITE WITH FUNCTION BIT 3 ON SVC
000012                    1824 CTRL     EQU   18                         CONTROL SVC
000013                    1825 RICB     EQU   19                         RELEASE INTERUPT CONTROL BLOCK SVC
000014                    1826 CICB     EQU   20                         CONNECT INTERUPT CONTROL BLOCK SVC
000015                    1827 HIO      EQU   21                         HALT ALL I/O
000016                    1828 REQSD    EQU   22                         REQUEST USE OF DCP DISK SVC
000017                    1829 RELSD    EQU   23                         RELEASE USE OF DCP DISK SVC
000018                    1830 HALT     EQU   24                         HALT SVC
000019                    1831 ETOH     EQU   25                         EBCDIC TO HEX SVC (STRING)
00001A                    1832 HTOE     EQU   26                         HEX TO EBCDIC SVC (STRING)
00001B                    1833 ATOH     EQU   27                         ASCII TO HEX SVC (STRING)
00001C                    1834 HTOA     EQU   28                         HEX TO ASCII SVC (STRING)
00001D                    1835 ETOA     EQU   29                         EBCDIC TO ASCII SVC (STRING)
00001E                    1836 ATOE     EQU   30                         ASCII TO EBCDIC SVC (STRING)
00001F                    1837 READI    EQU   31                         READ DATA SETS FOR MDI/UTIL
000020                    1838 WRITI    EQU   32                         WRITE DATA SETS FOR UTIL
                          1840 ********************************************************************
                          1841 *                                                                  *
                          1842 *              EQUATES USED BY TU'S AS CONSTANTS                   *
                          1843 *                                                                  *
                          1844 ********************************************************************
00004E                    1845 PLUS     EQU   C'+'                       PLUS CHAR
000060                    1846 MINUS    EQU   C'-'                       MINUS CHAR
000000                    1848 ZERO     EQU   0
000001                    1849 ONE      EQU   1
000002                    1850 TWO      EQU   2
000003                    1851 THREE    EQU   3
000004                    1852 FOUR     EQU   4
000005                    1853 FIVE     EQU   5
000006                    1854 SIX      EQU   6
000007                    1855 SEVEN    EQU   7
000008                    1856 EIGHT    EQU   8
000009                    1857 NINE     EQU   9
00000A                    1858 TEN      EQU   10
00000B                    1859 ELEVN    EQU   11                                   11
00000C                    1860 TWELV    EQU   12                                   12
00000D                    1861 THRTN    EQU   13                                   13
00000F                    1862 FIVTN    EQU   15                                   15
000010                    1863 SIXTN    EQU   16                                   16
000020                    1864 THRY2    EQU   32                                   32
000040                    1865 SIX44    EQU   64                                   64
000080                    1866 ONE28    EQU   128                                  128
000100                    1867 TWO56    EQU   256                                  256
000400                    1868 ONEK     EQU   1024                                 1024
000800                    1869 TWOK     EQU   2048                                 2048
000C00                    1870 THREK    EQU   3072                                 3072
001000                    1871 FOURK    EQU   4096                                 4096
FFFFFF                    1873 M1       EQU   -1                                   -1
FFFFFE                    1874 M2       EQU   -2                                   -2
FFFFFD                    1875 M3       EQU   -3                                   -3
FFFFFC                    1876 M4       EQU   -4                                   -4
                          1878 ********************************************************************
                          1879 *                                                                  *
                          1880 *     THE FOLLOWING ARE EQUATES FOR BIT DISPLACEMENTS FROM THE     *
                          1881 *     BEGINNING OF THE BYTE TO EACH BIT IN THE WORD OF SWITCHES.   *
                          1882 *                                                                  *
                          1883 ********************************************************************
000000                    1884 BS0      EQU   0
000001                    1885 BS1      EQU   1
000002                    1886 BS2      EQU   2
000003                    1887 BS3      EQU   3
000004                    1888 BS4      EQU   4
000005                    1889 BS5      EQU   5
000006                    1890 BS6      EQU   6
000007                    1891 BS7      EQU   7
000008                    1892 BS8      EQU   8
000009                    1893 BS9      EQU   9
00000A                    1894 BS10     EQU   10
00000B                    1895 BS11     EQU   11
00000C                    1896 BS12     EQU   12
00000D                    1897 BS13     EQU   13
00000E                    1898 BS14     EQU   14
00000F                    1899 BS15     EQU   15
                          1901          COPY  T7A00DCB                260CT77
                          1902 ** (T7A00DCB)
                          1903 *
                          1904 ***************************************************4/28/77**********
                          1905 *
                          1906 *     DCB TABLES AND DC'S
                          1907 *
                          1908 ********************************************************************
                          1909 *
                          1910 ***** DIAGNOSTIC DCB   ********
                          1911 *
0039B2  2008              1912 DGDCB DC     X'2008'                      DIAGNOSTIC DCB
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 LOCTR  OBJECT TEXT        STMT SOURCE STATEMENT                    COPYRIGHT IBM CORP 1976
0039B4  0000              1913         DC    A(*-*)               FLAG / PHYSICAL SECTOR#
0039B6  0000              1914         DC    A(*-*)               HEAD / CYLINDER#'S
0039B8  0000              1915         DC    X'0000'              NOT USED
0039BA  3A8C              1916         DC    A(RSBA)              RSB ADDRESS
0039BC  0000              1917         DC    A(*-*)               CHAINING ADDRESS
0039BE  0100              1918         DC    X'0100'              BYTE COUNT
0039C0  0000              1919         DC    A(*-*)               DATA ADDRESS
                          1920 *
                          1921 ***** RECALIBRATE DCB  ********
                          1922 *
0039C2  0001              1923 CLDCB   DC    X'0001'              RECALIBRATE DCB
0039C4  00000000000000000 1924         DC    7A(*-*)
                          1925 *
                          1926 ***** WRITE SECTOR ID  ********
                          1927 *
0039D2  002D              1928 WSDCB   DC    X'002D'              WRITE SECTOR ID CNTL WORD
0039D4  0000              1929         DC    A(*-*)               FLAG / PHYSICAL SECTOR#
0039D6  0000              1930         DC    A(*-*)               HEAD / CYLINDER#'S
0039D8  0000              1931         DC    X'0000'              NOT USED
0039DA  3A8C              1932         DC    A(RSBA)              RSB ADDRESS
0039DC  0000              1933         DC    A(*-*)               CHAIN ADDRESS
0039DE  0004              1934         DC    X'0004'              BYTE COUNT
0039E0  3A80              1935         DC    A(WRSID)             ADDP OF SECTOR ID DATA
                          1936 *
                          1937 ***** READ SECTOR ID DCB  *******
                          1938 *
0039E2  201C              1939 RSDCB   DC    X'201C'              READ SECTOR ID CNTL WORD
0039E4  0000              1940         DC    A(*-*)               FLAG / PHYSICAL SECTOR#
0039E6  0000              1941         DC    X'0000'              HEAD / CYLINDER#'S
0039E8  0000              1942         DC    X'0000'              NOT USED
0039EA  3A8C              1943         DC    A(RSBA)              RSB ADDRESS
0039EC  0000              1944         DC    A(*-*)               CHAIN ADDRESS
0039EE  0004              1945         DC    X'0004'              BYTE COUNT FOR READ SECTOR ID
0039F0  3968              1946         DC    A(SCTID)             SECTOR ID DATA ADDRESS
                          1947 *
                          1948 ***** SEEK DCB  ********
                          1949 *
0039F2  0000              1950 SKDCB   DC    X'0000'              SEEK DCB CONTROL WORD
0039F4  0000              1951         DC    X'0000'              NOT USED
0039F6  0000              1952         DC    A(*-*)               HEAD / CYLINDER#'S
0039F8  0000              1953         DC    X'0000'              NOT USED
0039FA  3A8C              1954         DC    A(RSBA)              PSB ADDRESS
0039FC  0000              1955         DC    A(*-*)               CHAIN ADDRESS
0039FE  0000              1956         DC    X'0000'              NOT USED
003A00  0000              1957         DC    X'0000'              NOT USED
                          1958 *
                          1959 ***** CYCLE STEAL STATUS DCB  ********
                          1960 *
003A02  2000              1961 CSDCB   DC    X'2000'              CONTROL WORD
003A04  0000              1962         DC    F'0'                 NOT USED
003A06  0000              1963         DC    F'0'                 NOT USED
003A08  0000              1964         DC    F'0'                 NOT USED
003A0A  0000              1965         DC    F'0'                 NOT USED
003A0C  0000              1966         DC    F'0'                 NOT USED
003A0E  001A              1967         DC    X'001A'              13 WORDS OF STATUS
003A10  3980              1968         DC    A(CSBUF)             ADDRESS OF CYCLE STEAL STATUS DATA
                          1969 *
                          1970 ***** WRITE DCB  **********
                          1971 *
003A12  0028              1972 WRDCB   DC    X'0028'              WRITE DATA DCB CNTL WORD
003A14  0000              1973         DC    A(*-*)               FLAG / RECORD#
003A16  0000              1974         DC    A(*-*)               HEAD / CYLIDNER#'S
003A18  0000              1975         DC    A(*-*)               SCAN / REPEAT COUNT
003A1A  3A8C              1976         DC    A(RSBA)              RSB ADDRESS
003A1C  0000              1977         DC    A(*-*)               CHAIN ADDRESS
003A1E  0100              1978         DC    X'0100'              BYTE COUNT
003A20  0000              1979         DC    A(*-*)               WRITE DATA ADDRESS
                          1980 *
                          1981 ***** VERIFY DCB   *******
                          1982 *
003A22  0019              1983 VRDCB   DC    X'0019'              CONTROL WORD
003A24  0000              1984         DC    A(*-*)               FLAG / RECORD#
003A26  0000              1985         DC    A(*-*)               HEAD / CYLINDER#'S
003A28  0000              1986         DC    A(*-*)               SCAN / REPEAT COUNT
003A2A  3A8C              1987         DC    A(RSBA)              RSB ADDRESS
003A2C  0000              1988         DC    A(*-*)               CHAIN ADDRESS
003A2E  0000              1989         DC    A(*-*)               BYTE COUNT
003A30  0000              1990         DC    F'0'                 NOT USED
                          1991 *
                          1992 ***** READ DCB   *******
                          1993 *
003A32  2018              1994 RDDCB   DC    X'2018'              READ DCB CONTROL WORD
003A34  0000              1995         DC    A(*-*)               FLAG / RECORD#
003A36  0000              1996         DC    A(*-*)               HEAD / CYLINDER#'S
003A38  0000              1997         DC    A(*-*)               SCAN / REPEAT COUNT
003A3A  3A8C              1998         DC    A(RSBA)              RSB ADDRESS
003A3C  0000              1999         DC    A(*-*)               CHAIN ADDRESS
003A3E  0100              2000         DC    X'0100'              BYTE COUNT
003A40  0000              2001         DC    A(*-*)               READ DATA ADDRESS
                          2002 *
                          2003 ****  WRITE SECTOR ID SKEWED    ****
                          2004 *
003A42  002F              2005 WKDCB   DC    X'002F'              CONTROL WORD
003A44  0000              2006         DC    A(*-*)               FLAG / PHYSICAL SECTOR#
003A46  0000              2007         DC    A(*-*)               HEAD / CYLINDER#'S
003A48  0000              2008         DC    F'0'                 NOT USED
003A4A  3A8C              2009         DC    A(RSBA)              RSB ADDRESS
003A4C  0000              2010         DC    A(*-*)               CHAIN ADDRESS
003A4E  0004              2011         DC    X'0004'              BYTE COUNT
003A50  3A80              2012         DC    A(WRSID)             ADDR OF SECTOR ID DATA
                          2013 *
                          2014 ****  READ SECTOR ID SKEWED     ****
                          2015 *
003A52  201D              2016 RKDCB   DC    X'201D'              CONTROL WORD
003A54  0000              2017         DC    A(*-*)               FLAG / PHYSICAL SECTOR#
003A56  0000              2018         DC    A(*-*)               HEAD / CYLINDER#'S
003A58  0000              2019         DC    F'0'                 NOT USED
003A5A  3A8C              2020         DC    A(RSBA)              RSB ADDRESS
003A5C  0000              2021         DC    A(*-*)               CHAIN ADDRESS
003A5E  0004              2022         DC    X'0004'              BYTE COUNT
003A60  3968              2023         DC    A(SCTID)             SECTOR ID DATA ADDRESS
                          2024 *
                          2025 ****  READ MULTIPLE SECTOR IDS     ****
                          2026 *
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 LOCTR  OBJECT TEXT        STMT SOURCE STATEMENT                    COPYRIGHT IBM CORP 1976
003A62  201C              2027 RMDCB   DC    X'201C'              CONTROL WORD
003A64  0000              2028         DC    A(*-*)               FLAG / PHYSICAL SECTOR#
003A66  0000              2029         DC    A(*-*)               HEAD / CYLINDER#'S
003A68  0000              2030         DC    F'0'                 NOT USED
003A6A  3A8C              2031         DC    A(RSBA)              RSB ADDRESS
003A6C  0000              2032         DC    A(*-*)               CHAIN ADDRESS
003A6E  0084              2033         DC    X'0084'              BYTE COUNT
003A70  3A9C              2034         DC    A(IDO0)              DATA AREA ADDRESS
                          2035 *
                          2036 *     CONSTANTS AND DEFINED STORAGE  LOCATIONS
003A72  0000              2037 ZERO0   DC    X'0000'              CONSTANT ZERO
003A74  0001              2038 ONE1    DC    X'0001'              CONSTANT ONE
003A76  0000              2039 RAY     DC    A(*-*)               WRITE PARAMETER POINTER
003A78  EB6D              2040 WDATA   DC    X'EB6D'              WRITE DATA
003A7A  6BDB              2041         DC    X'6BDB'              *
003A7C  0000              2042 LGSEC   DC    X'0000'              LOGICAL SECTOR #
003A7E  0000              2043 PHYSC   DC    X'0000'              CONVERTED PHYSICAL SEC #
003A80  0000              2044 WRSID   DC    X'0000'              FLAG,SECTOR   (WRT SECTOR ID DATA)
003A82  0000              2045         DC    X'0000'              HEAD,CYLINDER
003A84  FF34              2046 WSIDT   DC    X'FF34'              WRITE SECTOR ID TEST DATA
003A86  5678              2047         DC    X'5678'              *
003A88  0000              2048 SCTST   DC    X'0000'              READ SECTOR ID TEST DATA BUFFER
003A8A  0000              2049         DC    X'0000'              *
003A8C  00000000000000000 2050 RSBA    DC    6A(*-*)              RESIDUAL STATUS BLOCK
003A98  0000              2051 CTR02   DC    X'0000'              COUNTER
003A9A  0000              2052 CTR03   DC    X'0000'              COUNTER
003A9C  0000              2053 IDO0    DC    X'0000'              ID ADDRESS TO BE SET BY USER
003A9E  1010              2054 PDATA   DC    X'1010'              WRITE DIAG WORD 1 DATA PATTERNS
003AA0  5555              2055         DC    X'5555'              *
003AA2  AAAA              2056         DC    X'AAAA'              *
003AA4  FFFF              2057         DC    X'FFFF'              *
                          2058 *
                          2059 ****************************4/06/77**********************************
                          2060 *
                          2061 *  SUBROUTINE
                          2062 *
                          2063 *     PURPOSE
                          2064 *
                          2065 *          COMPARE READ SECTOR ID DATA TO WRITE SECTOR ID DATA
                          2066 *
                          2067 *     CALLING SEQUENCE
                          2068 *
                          2069 *          BAL  CMPRW,R6          (NORMAL)
                          2070 *
                          2071 *     RETURN
                          2072 *
                          2073 *          BXS (R6,2)     -   NORMAL
                          2074 *
                          2075 *
                          2076 ************************************************************************
                          2077 *
003AA6  4724 0004         2078 CMPRW   MVWI  4,R7                   COMPARE BYTE COUNT
003AAA  4324 3968         2079         MVA   SCTID,R3               ADDR OF RD SEC ID DATA
003AAE  4524 3A80         2080         MVA   WRSID,R5               ADDR OF WR SEC ID DATA
003AB2  2BA6              2081         CFNEN (R3),(R5)              COMPARE ID DATA
003AB4  68C0 0002         2082         BE    (R6,2)                 BCH IF WRITE ID DATA OK
003AB8  68D2 0000         2083         B     (R6)*                  COMPARE ERROR
                          2084 ************************************************************
                          2085 *
                          2086 *     EXECUTE INPUT & OUTPUT COMMANDS
                          2087 *     TO EXECUTE ALL I/O COMMANDS FROM A COMMON PLACE.
                          2088 *     EACH OF THESE ENTRIES SET R7 WITH THE ADRS OF ITS PARAMETER
                          2089 *     LIST AND ANY SPECIAL SWITCHES BEFORE BRANCHING TO THE
                          2090 *     SUPVR CALL.
                          2091 *
                          2092 *     THIS SUBROUTINE WILL CHECK FOR THE FOLLOWING:
                          2093 *
                          2094 *     1. LOST INTERRUPTS BY TIMING OUT A COUNTING LOOP
                          2095 *     2. ERROR INTERRUPTS RECEIVED FROM SUPVR
                          2096 *
                          2097 *     THIS ROUTINE HAS THE FOLLOWING ENTRIES:
                          2098 *
                          2099 *     1    BAL   $RKEW,R6              READ SECTOR ID SKEWED
                          2100 *          .
                          2101 *     2    BAL   $WKEW,R6              WRITE SECTOR ID SKEWED
                          2102 *          .
                          2103 *     3    BAL   $WSEC,R6              WRITE SECTOR ID
                          2104 *          .
                          2105 *     4    BAL   $DIAG,R6              DIAGNOSTIC
                          2106 *          .
                          2107 *     5    BAL   XIOCS,R6              CYCLE STEAL STATUS
                          2108 *          .
                          2109 *     6    BAL   $SEEK,R6              SEEK
                          2110 *          .
                          2111 *     7    BAL   $RECL,R6              RECALIBRATE
                          2112 *          .
                          2113 *     8    BAL   $RDID,R6              READ SECTOR ID
                          2114 *          .
                          2115 *     9    BAL   $RD,R6                READ
                          2116 *          .
                          2117 *     10   BAL   $RDVY,R6              READ VERIFY
                          2118 *          .
                          2119 *     11   BAL   $WRT,R6               WRITE
                          2120 *          .
                          2121 *     12   BAL   $RDIM,R6              READ MULTI SECTOR IDS
                          2122 *
                          2123 ************************************************************************
                          2124 *
003ABC  4020 3CD4 39F2    2125 $SEEK   MVA   SKDCB,IODCB             SET UP CONTROL BLOCK FOR SVC CALL
003AC2  507F              2126         J     XIO
                          2127 *
003AC4  4020 3CD4 39C2    2128 $RECL   MVA   CLDCB,IODCB             SET UP BLOCK FOR SVC CALL
003ACA  507B              2129         J     XIO
                          2130 *
003ACC  4020 3CD4 39E2    2131 $RDID   MVA   RSDCB,IODCB             SET UP BLOCK FOR SVC CALL
003AD2  0BBB              2132         MVBI  X'BB',R3               SET BUFFER TO B'S
003AD4  4524 3968         2133         MVA   SCTID,R5               SETUP READ SECTOR ID BUFFER ADRS
003AD8  4724 0004         2134         MVWI  4,R7                   SETUP BUFFER LENGTH
003ADC  2BAC              2135         FFN   R3,(R5)                INIT READ SECTOR ID BUFFER
003ADE  4020 39F0 3968    2136         MVA   SCTID,RSDCB+14         DATA ADDR
003AE4  506E              2137         J     XIO
                          2138 *
003AE6  4020 3CD4 3A62    2139 $RDIM   MVA   RMDCB,IODCB             SET UP CONTROL BLOCK FOR SVC CALL
003AEC  4724 0084         2140         MVWI  132,R7                 SET BUFFER LENGTH
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 LOCTR  OBJECT TEXT        STMT SOURCE STATEMENT                    COPYRIGHT IBM CORP 1976

003AF0  4524 3A9C          2142         MVA   IDOO,R5               SET BUFFER ADDRESS
003AF4  0BBB               2143         MVBI  X'BB',R3              SET CLEAR CHARACTERS
003AF6  2BAC               2144         FFN   R3,(R5)               CLEAR THE BUFFER
003AF8  5064               2145         J     XIO
                           2146 *
003AFA  0BFF               2147 $RD     MVBI  X'FF',R3              SETRD BUFFER TO ALL F'S
003AFC  6D08 3A40          2148         MVW   RDDCB+14,R5           SET UP READ BUFFER ADRS
003B00  6F08 3A3E          2149         MVW   RDDCB+12,R7           SET UP BUFFER LENGTH
003B04  2BAC               2150         FFN   R3,(R5)               CLEAR READ BUFFER
003B06  4020 3CD4 3A32     2151 $RD$    MVA   RDDCB,IODCB           SET UP BLOCK FOR SVC CALL
003B0C  505A               2152         J     XIO
                           2153 *
003B0E  4020 3CD4 3A22     2154 $RDVY   MVA   VRDCB,IODCB           SET UP CONTROL BLOCK FOR SVC CALL
003B14  5056               2155         J     XIO
                           2156 *
003B16  4020 3CD4 3A12     2157 $WRT    MVA   WRDCB,IODCB           SET UP CONTROL BLOCK FOR SVC CALL
003B1C  5052               2158         J     XIO
                           2159 *
003B1E  4020 3CD4 3A52     2160 $RKEW   MVA   RKDCB,IODCB            SET UP CONTROL BLOCK FOR SVC CALL
003B24  0BBB               2161         MVBI  X'BB',R3              SET BUFFER TO B'S
003B26  4524 3968          2162         MVA   SCTID,R5              SETUP READ SECTOR ID BUFFER ADRS
003B2A  4724 0004          2163         MVWI  4,R7                  SETUP BUFFER LENGTH
003B2E  2BAC               2164         FFN   R3,(R5)               INIT READ SECTOR ID BUFFER
003B30  4020 3A60 3968     2165         MVA   SCTID,RKDCB+14         DATA ADDR
003B36  5045               2166         J     XIO
                           2167 *
003B38  4020 3CD4 3A42     2168 $WKEW   MVA   WKDCB,IODCB            SET UP CONTROL BLOCK FOR SVC CALL
003B3E  4020 3A50 3A80     2169         MVA   WRSID,WKDCB+14        DATA ADDR
003B44  503E               2170         J     XIO
                           2171 *
003B46  4020 3CD4 39D2     2172 $WSEC   MVA   WSDCB,IODCB            SET UP CONTROL BLOCK FOR SVC CALL
003B4C  4020 39E0 3A80     2173         MVA   WRSID,WSDCB+14        DATA ADDR
003B52  5037               2174         J     XIO
                           2175 *
003B54  4020 3CD4 39B2     2176 $DIAG   MVA   DGDCB,IODCB           SET UP CONTROL BLOCK FOR SVC CALL
003B5A  5033               2177         J     XIO
                           2178 *
003B5C  6E0D 3966          2179 $WRT0   MVW   R6,LSTIO              SAVE IAR FOR RETRY IF REQUESTED
003B60  0BFF               2180         MVBI  255,R3                CLEAR CYCLE STATUS BUFFER
003B62  4524 3980          2181         MVA   CSBUF,R5              *  TO ALL ONES  *
003B66  0F16               2182         MVBI  22,R7                 *
003B68  2BAC               2183         FFN   R3,(R5)               *
003B6A  4524 3970          2184         MVA   DCBUF,R5              CLEAR DCB BUFFER TO ALL ONES
003B6E  0F10               2185         MVBI  16,R7                 *
003B70  2BAC               2186         FFN   R3,(R5)               *
003B72  4020 3962 0708     2187         MVWI  X'0708',$IOIN         OVERLAY OLD CONDITION CODES
003B78  CB25 3964          2188         MVWZ  $ISB,R3               ZERO OUT OLD ISB VALUE
003B7C  4CA3               2189         TBTR  (R4,IN)               CLEAR INTERRUPT RECEIVED CNTL BIT
003B7E  4CA1               2190         TBTR  (R4,ER)               RESET ANY ERROR BEFORE I/O COMMAND
003B80  4C62               2191         TBTS  (R4,XI)               SET EXPECTED INTR CONTROL BIT
003B82  4724 3CD0          2192         MVA   IOBLK,R7              SET UP CONTROL BLK FOR SUPR
003B86  C020 3CD7          2193         MVB   IOMOD+1,R0            GET IDCB FUNC/MODIFIER
003B8A  402D 3CD6 00F0     2194         RBTWI X'00F0',IOMOD         REMOVE FUNCTION  FROM 'IOMOD'
003B90  2022               2195         SRL   4,R0                  RIGHT JUSTIFY FUNCTION BITS IN R0
003B92  F005               2196         CBI   5,R0                  IDCB FUNCTION = 5?
003B94  1003               2197         JE    $WRT1                 YES - ISSUE 'SVC  WRIT1'
003B96  6010               2198         SVC   WRIT0                 ISSUE WRITE DPC '4X' OP
003B98  6802 3C1C          2199         B     XIO8-4                GO WAIT FOR THE INTERRUPT
003B9C  6011               2200 $WRT1   SVC   WRIT1                 ISSUE WRITE DPC '5X' OP
003B9E  6802 3C1C          2201         B     XIO8-4                GO WAIT FOR THE INTERRUPT
                           2202 *
003BA2  4020 3CD4 3A12     2203 $DGWR   MVA   WRDCB,IODCB           SET UP CONTROL BLK FOR SVC CALL
003BA8  6802 3BC8          2204         B     XIODG                 ISSUE START CS DIAG CMD
                           2205 *
003BAC  4020 3CD4 3A32     2206 $DGRD   MVA   RDDCB,IODCB           SET UP CONTROL BLK FOR SVC CALL
003BB2  6F08 3A3E          2207         MVW   RDDCB+12,R7           GET NO. OF BYTES TO CLEAR
003BB6  6D08 3A40          2208         MVW   RDDCB+14,R5           ADDR OF  READ BUFFER
003BBA  0BFF               2209         MVBI  X'FF',R3              CLEAR TO F'S
003BBC  2BAC               2210         FFN   R3,(R5)               *
003BBE  6802 3BC8          2211         B     XIODG                 ISSUE START CS DIAG CMD
                           2213         COPY  T7AXEQ                09MAR78
                           2214           PRINT OFF
                           2778         T7AXEQ
2779+*************************************************************29JUL76**
2780+*
2781+* SUB-ROUTINE
2782+*
2783+*      EXECUTE INPUT AND OUTPUT COMMANDS
2784+*
2785+* PURPOSE
2786+*
2787+*      TO EXECUTE ALL I/O COMMANDS FROM A COMMON PLACE.
2788+*      THIS SUBROUTINE WILL DO THE FOLLOWING FUNCTIONS:
2789+*
2790+*        1. SAVE THE ADDRESS THAT POINTS TO THE INSTRUCTION THAT STARTED
2791+*           THE I/O COMMAND.
2792+*        2. SAVES THE DCB BLOCK USED UNLESS IT IS A START CYCLE STATUS
2793+*           ISSUED BY THIS SUBROUTINE.
2794+*        3. CLEAR OUT THE CYCLE STEAL STATUS STORAGE UNLESS THE
2795+*           START CYCLE STATUS WAS ISSUED BY THIS SUBROUTINE.
2796+*        4. RESETS THE INTERRUPT INDICATOR AND CHECKS FOR ANY INTERRUPT
2797+*           SINCE THE LAST EXPECTED INTERRUPT. IF AN INTERRUPT IS FOUND,
2798+*           MYSTERY INTERRUPT (MI) CONTROL BIT IS SET.
2799+*        5. MOVES THE ADDRESS OF THE I/O CONTROL BLOCK IN R7, SET THE
2800+*           EXPECTED INTERRUPT CONTROL BIT AND ISSUE THE 'SVC  START'.
2801+*        6. WHEN THE SUPVR RETURNS AFTER ISSUING THE I/O COMMAND, TIMING
2802+*           STARTS TO DETERMINE A LOST INTERRUPT.
2803+*        7. EXCEPT THE INTERRUPT AND GATHER INFORMATION TO DETERMINE IF IT
2804+*           WAS AN ERROR OR OKAY AND EXIT OFF THE INTERRUPT LEVEL.
2805+*        8. CHECK IF THERE WAS A WRONG INTERRUPT LEVEL.
2806+*        9. CHECK IF AN ERROR WAS EXPECTED AND IF THERE WAS RETURN.
2807+*       10. CHECK IF THERE WAS AN ERROR CONDITION, IF NOT RETURN.
2808+*       11. CHECK TO SEE IF THE EXERCISER IS TO BE TERMINATED.
2809+*       12. CHECK IF A CYCLE STEAL OPERATION WAS IN PROGRESS THAT WAS
2810+*           ISSUED BY THIS SUBROUTINE.
2811+*       13. CHECK THE ISB BITS THAT ARE ON. IF BIT 0 IS ON, ISSUE A
2812+*           CYCLE STEAL STATUS COMMAND. CHECK FOR ANY OTHER BIT BEING ON,
2813+*           COUNT IT AND SET UP THE PROPER ERROR MESSAGE TO BE PRINTED.
2814+*
2815+* CALLING SEQUENCE
2816+*
2817+*      THIS ROUTINE HAS THE FOLLOWING ENTRIES:
2818+*
2819+* --> BAL   XIO        OR         XEQ ANY CYCLE STEAL COMMAND, MOD=0
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 LOCTR  OBJECT TEXT        STMT SOURCE STATEMENT                    COPYRIGHT IBM CORP 1976

                           2820+* --> BAL   XIO1                    MOD PARM PRELOADED IN 'IOMOD'
                           2821+* --> BAL   XIOCS,F6    OR          XEQ START CYCLE STEAL STATUS, MOD=F
                           2822+* --> BAL   XIOCS-4,R6              AUTO CS STATUS (FOLLOWING OTHER XIO
                           2823+*     -                             AND DOES NOT POST INTERRUPT STATUS)
                           2824+*
                           2825+* RETURN CONTROL
                           2826+*
                           2827+*     BXS   (R6,2)                 RETURN TO USER NO ERROR
                           2828+* OR  B     (R6)*                  RETURN AND RETRY ON ERROR
                           2829+*************************************************************************
003BC2  CB25 3CD6          2831+XIO     MVWZ  IOMOD,R3              SET MOF OF 0 FOR CYCLE STEAL OP
003BC6  500E               2832+        J     XIO1                  CS I/O'S ARE NOT RETRIED
                           2833+*
003BC8  4020 3CD6 000D     2834+XIODG   MVWI  X'000D',IOMOD          SET MODIFIER FOR DIAGNOSTIC OPS
003BCE  500A               2835+        J     XIO1                  GO TO CS OPS
                           2836+*
003BD0  4CAA               2837+        TBTR  (R4,CE)               RESET CS STATUS INTER ERROR INDICAT.
003BD2  4C68               2838+        TBTS  (R4,CS)               SET 'CYCLE STEAL STATUS' IN PROGRESS
003BD4  4020 3CD4 3A02     2839+XIOCS   MVA   CSDCB,IODCB           SET UP CONTROL BLOCK FOR SVC CALL
003BDA  4020 3CD6 000F     2840+        MVWI  X'000F',IOMOD          SET CYCLE STEAL MODIFIER
003BE0  4C28               2841+        TBT   (R4,CS)               IS CS IN PROGRESS, ERROR CONDITION
003BE2  1213               2842+        JON   XIO2                  * YES, BYPASS SAVING I/O ADRS
003BE4  6E0D 3966          2843+XIO1    MVW   R6,LSTIO              SAVE IAR FOR RETRY IF REQUESTED
003BE8  4324 3970          2844+        MVA   DCBUF,R3              SET UP TO ADRS  TO MOVE DCB TABLE
003BEC  6D08 3CD4          2845+        MVW   IODCB,R5              * AND THE FROM ADRS, ALONG WITH
003BF0  0F1A               2846+        MVBI  26,R7                 * THE NUMBER OF MOVES
003BF2  2D64               2847+        MVFN  (R5),(R3)             MOVE 1 STATUS WORD AND ADJUST
003BF4  0BFF               2848+        MVBI  255,R3                CLEAR CYCLE STATUS BUFFER
003BF6  4524 3980          2849+        MVA   CSBUF,R5              *  TO ALL ONES  *
003BFA  0F1A               2850+        MVBI  26,R7                 *
003BFC  2BAC               2851+        FFN   R3,(R5)               *
003BFE  4020 3962 0708     2852+        MVWI  X'0708',$IOIN         OVERLAY OLD CONDITION CODES
003C04  CB25 3964          2853+        MVWZ  $ISB,R3               ZERO OUT OLD ISB VALUE
                           2854+*
003C08  4CA1               2855+        TBTR  (R4,ER)               RESET ANY ERROR BEFORE I/O COMMAND
003C0A  4CA3               2856+XIO2    TBTR  (R4,IN)               CLEAR INTERRUPT RECEIVED CNTL BIT
003C0C  4724 3CD0          2857+        MVA   IOBLK,R7              SET UP CONTROL BLOCK FOR SUPVR
003C10  4CA6               2858+        TBTR  (R4,LE)               RESET LEVEL ERROR INDICATOR
003C12  4C62               2859+        TBTS  (R4,XI)               SET EXPECTED INTR CONTROL BIT
003C14  600A               2860+        SVC   START                 CALL SUPVR FOR I/O COMMAND
                           2861+*
003C16  4CA7               2862+        TBTR  (R4,NI)               IS AN INTR EXPECTED
003C18  6AC0 0002          2863+        BN    (R6,2)                * NO, RETURN TO USER
                           2864+*
                           2865+*                 THE INTR SHOULD OCCUR WHILE SPINNING IN THE NEXT SECTION
                           2866+*
003C1C  4524 0000          2867+        MVWI  0,R5                  SET UP WORK REG FOR 'LOST INTR'
003C20  4CA3               2868+XIO8    TBTR  (R4,IN)               HAS INTERRUPT BEEN RECEIVED
003C22  1239               2869+        JON   XIOCK                 * YES, CHECK IF ALL WAS SATISFACTORY
003C24  6002               2870+        SVC   IDLE                  ALLOW ANOTHER PROGRAM A CHANCE TO RUN
                           2871+*                                   SUPVR WILL RETURN HERE
003C26  6002               2872+        SVC   IDLE                  ALLOW ANOTHER PROGRAM A CHANCE TO RUN
                           2873+*                                   SUPVR WILL RETURN HERE
003C28  7DA1 0001          2874+        AWI   1,R5                  ADVANCE TIME OUT COUNT
003C2C  18F9               2875+        JNZ   XIO8                  BCH IF TIME OUT NOT REACHED
003C2E  4C61               2876+        TBTS  (R4,ER)               SET ON ERROR CONTROL BIT
003C30  68D2 0000          2877+        B     (R6)*                 ERR 'NO INTERRUPT'
2879+*************************************************************03FEB76**
2880+*
2881+* SUBROUTINE
2882+*
2883+*      I/O EXECUTE ERROR HANDLING ROUTINE
2884+*
2885+* PURPOSE
2886+*
2887+*      THIS ROUTINE WILL COLLECT INFORMATION TO HELP DETERMINE THE
2888+*      PROBLEM THAT WAS FOUND WHEN THE I/O COMMAND WAS ISSUED BY THE
2889+*      SUPERVISOR AND IT WAS NOT ACCEPTED.
2890+*
2891+* CALLING SEQUENCE
2892+*
2893+*      SUPVR WILL ENTER WHEN AN ERROR OCCURS ON AN I/O COMMAND
2894+*
2895+* RETURN CONTROL
2896+*
2897+*      B     (R6)*                  RETURN TO USERS ERROR HANDLER
2898+*
2899+*************************************************************************
2900+*
2901+* CC         0= DEVICE NOT ATTACHED
2902+* FOR        1= DEVICE BUSY
2903+* I/O        2= DEVICE BUSY AFTER RESET
2904+*            3= COMMAND REJECT
2905+*            4= INTERVENTION REQUIRED
2906+*            5= INTERFACE DATA CHECK
2907+*            6= CONTROLLER BUSY
2908+*            7= I/O COMMAND EXCEPTED
2909+*
003C34  706E               2910+XIOER CPLSR R3                     COPY STATUS ANY LEVEL INTO R3
003C36  336A               2911+      SRL   13,R3                  POSITION CC CODE TO BITS 13-15
003C38  C328 3962          2912+      MVB   R3,$IOIN               * PUT IN LOG OUT AREA
003C3C  68D2 0000          2913+      B     (R6)*                  RETURN TO USER ERROR HANDLER
2915+*************************************************************14APR76**
2916+*                                                                      IL
2917+* SUB-ROUTINE                                                          IL
2918+*                                                                      IL
2919+*      ERROR INTERRUPT            RUNS ON INTERRUPT LEVEL '$INTL'      IL
2920+*                                                                      IL
2921+* PURPOSE                                                              IL
2922+*                                                                      IL
2923+*      THIS ROUTINE WILL BE ENTERED WHEN THE SUPVR DETECTS AN ERROR    IL
2924+*      OR THE INTERRUPTING CONDITION CODE DOES NOT AGREE WITH THE       IL
2925+*      EXPECTED CODE.                                                  IL
2926+*                                                                      IL
2927+* CALLING SEQUENCE                                                     IL
2928+*                                                                      IL
2929+*      SUPVR WILL ENTER WHEN AN ERROR OCCURS ON AN I/O INTERRUPT       IL
2930+*                                                                      IL
2931+* RETURN CONTROL                                                       IL
2932+*                                                                      IL
2933+*      SVC   EXIT                 RETURN TO USER VIA SUPVR             IL
2934+*                                                                      IL
2935+*************************************************************************IL
2936+*                                                                      IL
```

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 LOCTR  OBJECT TEXT             STMT SOURCE STATEMENT                                  COPYRIGHT IBM CORP 1976
                                2937+* CC         0= CONTROLLER END                  ISB   0= ADD STATUS     IL
                                2938+* FOR        1= PROGRAM CONTROL INTERRUPT       BITS  1= COMD REJECT    IL
                                2939+* INTR       2= EXCEPTION INTERRUPT             FOR   2= INCOR LENGTH   IL
                                2940+*            3= DEVICE END INTERRUPT            INTR  3= DCB SPEC CK    IL
                                2941+*            4= ATTENTION INTERRUPT                   4= STG DATA CK    IL
                                2942+*            5= ATTENTION / PROGRAM CNTL INTR         5= INV STG ADRS   IL
                                2943+*            6= ATTENTION / EXCEPTION INTR            6= PROTRCT CK     IL
                                2944+*            7= ATTENTION / DEVICE END INTR           7= I-FACE DATA    IL
                                2945+*                                                                       IL
003C40  706E                    2946+INTER CPLSR R3                   COPY STATUS ANY LEVEL INTO R3          IL
003C42  336A                    2947+      SRL   13,R3                POSITION INDICATORS IN R3              IL
003C44  4424 395A               2948+      MVA   OPTN1,R4             SET UP BASE ADRS                       IL
003C48  4C28                    2949+      TBT   (R4,CS)              IS CS IN PROGRESS                      IL
003C4A  1006                    2950+      JOFF  INTES                * NO                                   IL
003C4C  4C6A                    2951+      TBTS  (R4,CE)              TURN ON CYCLE STEAL INTER ERROR        IL
003C4E  6F0D 396E               2952+      MVW   R7,DEV4              SAVE CS ERR ISB VALUE, BITS 0-7        IL
003C52  C328 396F               2953+      MVB   R3,DEV4+1            * AND THE COND CODE                    IL
003C56  500A                    2954+      J     INTR1                                                       IL
003C58  4C24                    2955+INTES TBT   (R4,XE)              TEST  EXPECTED ATTEN / ERROR IND       IL
003C5A  1002                    2956+      JOFF  INTET                BCH IF NOT EXPECTED                    IL
003C5C  F304                    2957+      CBI   4,R3                 IS THIS AN 'ATTENTION' INTR            IL
003C5E  1006                    2958+      JE    INTR1                * YES, BCH TO END INTR SEQUENCE        IL
003C60  4C61                    2959+INTET TBTS  (R4,ER)              SET ERROR ON I/O COMMAND CNTL BIT      IL
003C62  5004                    2960+      J     INTR1                                                       IL
                                2961+*                                THE ERROR INTERRUPT USES THE SAME      IL
                                2962+*                                ENDING SEQUENCF AS THE NORMAL INTR     IL
                                2964+*******************************************************************14APR76IL
                                2965+*                                                                       IL
                                2966+* SOUBROUTINE                                                           IL
                                2967+*                                                                       IL
                                2968+*     OKAY  INTERRUPT            RUNS ON INTERRUPT LEVEL '$INTL'        IL
                                2969+*                                                                       IL
                                2970+* PURPOSE                                                               IL
                                2971+*                                                                       IL
                                2972+*     TO CHECK THE INTERRUPT AND CONTINUE THE TEST                      IL
                                2973+*                                                                       IL
                                2974+* CALLING SEQUENCE                                                      IL
                                2975+*                                                                       IL
                                2976+*     SUPERVISOR WILL ENTER HERE  IF INTR CC IS AS REQUESTED            IL
                                2977+*     THE ERROR INTERRUPT HANDLER WILL BRANCH TO THIS ROUTINE           IL
                                2978+*     AFTER THE SPECIAL PART HAS BEEN COMPLETED  AND THE                IL
                                2979+*     COMMON SECTION IS HANDLED HERE.                                   IL
                                2980+*                                                                       IL
                                2981+* RETURN CONTROL                                                        IL
                                2982+*                                                                       IL
                                2983+*     SVC   EXIT                 RETURN TO USER VIA SUPVR               IL
                                2984+*                                                                       IL
                                2985+*********************************************************************IL
003C64  706E                    2986+INTOK CPLSR R3                   COPY STATUS ANY LEVEL INTO R3          IL
003C66  336A                    2987+      SRL   13,R3                POSITION INDICATORS IN R3              IL
003C68  4424 395A               2988+      MVA   OPTN1,R4             SET UP BASE ADRS                       IL
003C6C  4C63                    2989+INTR1 TBTS  (R4,IN)              SET   INTERRUPT RECEIVED               IL
003C6E  4C28                    2990+      TBT   (R4,CS)              IS 'CS IN PROGRESS' ON                 IL
003C70  1204                    2991+      JON   INTR2                * YES, BCH AROUND UPDATE               IL
003C72  C328 3963               2992+      MVB   R3,$IOIN+1           SAVE INTERRUPTING CC CODE              IL
003C76  6F0D 3964               2993+      MVW   R7,$ISB              SAVE INTR STATUS AND DEV ADRS          IL
003C7A                          2994+INTR2 EQU   *                                                           IL
                                2995+*     CPCL  R5                   CURRENT LEVEL COPIED BY DCP            IL
003C7A  3521                    2996+      SLL   4,R5                 POSITION INTR LEVEL AND PUT            IL
003C7C  0501                    2997+      ABI   1,R5                 * IN 'I' BIT                           IL
003C7E  CD24 39A0               2998+      CW    $INTL,R5             IS THIS THE CORRECT INTR LEVEL         IL
003C82  1002                    2999+      JE    INTR3                * YES, GO EXIT THIS LEVEL              IL
003C84  4C66                    3000+      TBTS  (R4,$LE)             SET INTR LEVEL ERROR CONTROL BIT       IL
003C86  4C61                    3001+      TBTS  (R4,ER)              SET ERROR ON I/O COMMAND CNTL BIT      IL
003C88  4CA2                    3002+INTR3 TBTR  (R4,XI)              WAS INTERRUPT EXPECTED                 IL
003C8A  1204                    3003+      JON   INTRX                * YES, EXIT OFF THIS INTR LEVEL        IL
003C8C  4C60                    3004+      TBTS  (R4,MI)              * NO, SET MYSTERY INTR CONTROL BIT     IL
003C8E  F304                    3005+      CBI   4,R3                 ATTENTION INTERRUPT?                   IL
003C90  1001                    3006+      JE    INTRX                YES                                    IL
003C92  4C6C                    3007+      TBTS  (R4,NG)              ERROR,UNEXPECTED INTERRUPT             IL
003C94  6006                    3008+INTRX SVC   EXIT                 EXIT THIS LEVEL VIA SUPVR TO PGM       IL
                                3010+*******************************************************************03FEB76**
                                3011+*
                                3012+*     THIS IS THE CONTINUATION OF EXECUTE I/O AFTER THE INTERRUPT
                                3013+*     HAS BEEN SERVICED. THE EXERCISER FINDS AN INTERRUPT HAS BEEN
                                3014+*     RECEIVED AND BRANCHES HERE TO CHECK FOR ANY ERROR CONDITIONS.
                                3015+*
                                3016+*
003C96  4CA4                    3017+XIOCK TBTR  (R4,XE)              WAS AN ERROR EXPECTED
003C98  6AC0 0002               3018+      BN    (R6,2)               * YES, EXIT THIS ROUTINE
003C9C  4CA8                    3019+      TBTR  (R4,CS)              WAS AUTO CS IN PROGRESS
003C9E  1006                    3020+      JOFF  XIOCV                * NO, CONTINUE CHECKING
003CA0  4C2A                    3021+      TBT   (R4,CE)              IS CS IN AN ERR CONDITION
003CA2  1002                    3022+      JOFF  XIOCO                * NO, BCH
003CA4  68D2 0000               3023+      B     (R6)*                CS ERROR
003CA8  4C69                    3024+XIOCO TBTS  (R4,CSA)             TURN ON CS STATS AVAIL FLAG
003CAA  5601                    3025+      BXS   (R6,2)               GO TO USER
003CAC  4C21                    3026+XIOCV TBT   (R4,ER)              WAS ERROR INTR CONTROL BIT ON
003CAE  100D                    3027+      JOFF  XIOCX                * NO, EXIT THIS ROUTINE
                                3028+*
003CB0  C520 3963               3029+      MVB   $IOIN+1,R5           GET LAST INTR CC CODE
003CB4  F502                    3030+      CBI   2,R5                 IS THIS CC=2
003CB6  1003                    3031+      JE    XIOCQ                YES
003CB8  F506                    3032+      CBI   6,R5                 IS THIS CC=6
003CBA  68D1 0000               3033+      BNE   (R6)*                * NO, BCH TO ERROR HANDLER
003CBE  C520 3964               3034+XIOCQ MVB   $ISB,R5              GET LAST ISB DATA BYTE AND IF CS
003CC2  6A00 3BD0               3035+      BN    XIOCS-4              * AVAILABLE, GO AND GET IT
003CC6  68D2 0000               3036+      B     (R6)*                ERROR
003CCA  CB25 395E               3037+XIOCX MVWZ  OPTN3,R3             CLEAR OUT OPTION 3 CNTL BITS
003CCE  5601                    3038+      BXS   (R6,2)               RETURN TO USER VIA REG 6
                                3039+*
                                3040+*           I/O   PARAMETER LIST
                                3041+*
003CD0  19D0                    3042+IOBLK DC    A(DEVADD)            ADRS OF DEVICE ADRS
003CD2  3C34                    3043+      DC    A(XIOER)             ERROR ROUTINE ADRS
003CD4  0000                    3044+IODCB DC    A(*-*)               DCB ADRS OR LEVEL & INTR
003CD6  0000                    3045+IOMOD DC    A(*-*)               MODIFIER
003CD8  0000                    3046+      DC    A(*-*)               ADRS OF LAST SVC CALL
003CDA  0000                    3047+IORSP DC    A(*-*)               SECOND WORD OF LAST IDCB
                                3048+*
                                3049+*           INTERRUPT CONTROL BLOCK FOR I/O COMMANDS
                                3050+*
003CDC  19D0                    3051+INTBL DC    A(DEVADD)            ADRS OF DEVICE ADRS
003CDE  3C64                    3052+      DC    A(INTOK)             INTERRUPT OK RETURN ADRS
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 LOCTR  OBJECT TEXT             STMT SOURCE STATEMENT                                  COPYRIGHT IBM CORP 1976
003CE0  3C40                    3053+      DC    A(INTER)             INTERRUPT ERROR ADRS
003CE2  0003                    3054+INTCC DC    X'0003'              INTERRUPT CODE EXPECTED
                                3056+*******************************************************************11MAY76**
                                3057+*
                                3058+* SUBROUTINE
                                3059+*
                                3060+*     CONNECT INTERRUPT CONTROL BLOCK & PREPARE DEVICE
                                3061+*
                                3062+* PURPOSE
                                3063+*
                                3064+*     TO CONNECT THE INTERRUPT CONTROL BLOCK TO THIS DEVICE AND
                                3065+*     PREPARE ON THE DESIRED INTERRUPT LEVEL AND TO ALLOW THE DEVICE
                                3066+*     TO INTERRUPT.
                                3067+*
                                3068+* CALLING SEQUENCE
                                3069+*
                                3070+*     THIS SUBROUTINE HAS THE FOLLOWING ENTRIES:
                                3071+*
                                3072+* --> BAL   $CONC,R6             CLEAR DEV DEP STG AND CONNECT I/O BLK
                                3073+* --> BAL   $CONP,R6             PREPARE DEVICE ONLY, ALREADY CONNECT
                                3074+*
                                3075+* RETURN CONTROL
                                3076+*
                                3077+*     BXS   (R6,2)               RETURN TO USER VIA REG 6 IF OKAY
                                3078+* OR  B     (R6)*                IF THE DEVICE COULD NOT BE CONNECTED
                                3079+*
                                3080+*********************************************************************
003CE4  0F06                    3081+$CONC MVBI  6,R7                 NUMBER OF BYTE TO CLEAR
003CE6  0B00                    3082+      MVBI  0,R3                 * AND THE DATA TO USE
003CE8  4524 3968               3083+      MVA   DEV1,R5              * ALONG WITH THE ADRS TO USE
003CEC  2BAC                    3084+      FFN   R3,(R5)              *
003CEE  CB25 395E               3085+      MVWZ  OPTN3,R3             CLEAR OLD CONTROLS FOR NEW ROUTINE
003CF2  4724 3CDC               3086+      MVA   INTBL,R7             SET R7 TO CONTROL BLOCK AND
003CF6  6014                    3087+      SVC   CICB                 * CONNECT IT TO THIS DEVICE
003CF8  6AD0 0000               3088+      BN    (R6)*                ERROR RETURN TO USER
                                3089+*
003CFC  8828 39A0 3CD4          3090+$CONP MVW   $INTL,IODCB          PUT IN LEVEL & INTR PARAMETER
003D02  4724 3CD0               3091+      MVA   IOBLK,R7             SET R7 TO CONTROL BLOCK TO PREPARE
003D06  4020 3962 0708          3092+      MVWI  X'0708',$IOIN        INITIALIZE CONDITION CODE STORAGE
003D0C  CB25 3964               3093+      MVWZ  $ISB,R3              * AND CLEAR OLD ISB VALUE
003D10  6E0D 3966               3094+      MVW   R6,LSTIO             SET UP ADDRESS THAT STARTED LAST I/O
003D14  600C                    3095+      SVC   PREP                 * AND CALL ON SUPVR
003D16  5601                    3096+      BXS   (R6,2)               RETURN TO USER
                                3098+*******************************************************************06APR76**
                                3099+*
                                3100+* SUBROUTINE
                                3101+*
                                3102+*     DISCONNECT THE INTERRUPT CONTROL BLOCK AND LOG ERRORS
                                3103+*
                                3104+* PURPOSE
                                3105+*
                                3106+*     DISCONNECT THE INTERRUPT CONTROL BLOCK TO THIS DEVICE AND
                                3107+*     SET THE 'NO GOOD' CONTROL BIT, THEN LOG THE DATA THAT HAS
                                3108+*     BEEN FOUND TO HELP THE OPERATOR DEFINE THE ERROR CONDITION.
                                3109+*
                                3110+* CALLING SEQUENCE
                                3111+*
                                3112+*     THIS SUBROUTINE HAS THE FOLLOWING ENTRIES:
                                3113+*
                                3114+* --> B     $ERR$                SET 'NG' BIT AND CONVERT DATA TO LOG
                                3115+* --> B     $CONX                RETURN TO MDI SUPERVISOR TO TEST STS
                                3116+*
                                3117+* RETURN CONTROL
                                3118+*
                                3119+*     B     TURTN*               RETURN TO MDI
                                3120+* OR  B     (R6)*                IF THE DEVICE COULD NOT BE CONNECTED
                                3121+*
                                3122+*********************************************************************
003D18  4020 1818 8000          3123+$ERR$  MVWI  X'8000',TUSTATUS    SET ON 'NO GOOD' STATUS BIT
003D1E  4724 3EE8               3124+       MVA   HEBLK,R7            GET ADRS OF CONTROL BLOCK
003D22  601A                    3125+       SVC   HTOE                CONVERT HEX TO EBC VIS DCP
003D24  4020 188E 4040          3126+       MVWI  X'4040',TUWORK+116
003D2A  4020 1890 4040          3127+       MVWI  X'4040',TUWORK+118
003D30  4020 1892 4040          3128+       MVWI  X'4040',TUWORK+120
003D36  0D04                    3129+$PRNT  MVBI  4,R5
003D38  4324 181A               3130+       MVA   TUWORK,R3           SET UP BUFFER STORAGE
003D3C  6B0D 3EE0               3131+       MVW   R3,BUFPT
003D40  4124 3DBC               3132+       MVA   LINE1,R1
003D44  0F04                    3133+       MVBI  4,R7
003D46  0E08                    3134+       MVBI  8,R6
003D48  2B24                    3135+MVBUF  MVFN  (R3),(R1)
003D4A  0F04                    3136+       MVBI  4,R7
003D4C  0A40                    3137+       MVBI  X'40',R2
003D4E  C258                    3138+       MVB   R2,(R1)+
003D50  BEFB                    3139+       JCT   MVBUF,R6
003D52  0E08                    3140+       MVBI  8,R6
003D54  7921 002C               3141+       AWI   44,R1
003D58  BDF7                    3142+       JCT   MVBUF,R5
003D5A  4020 1802 F1F0          3143+       MVWI  PIDMSG10,PID+2
003D60  4020 19B8 3EE6          3144+       MVA   FAKETU,@DCADD1
003D66  4020 19BA 3EE2          3145+       MVA   DC2PT,@DCADD2
003D6C  402C 19C4 0080          3146+       OWI   BIT0080,SUPSTAT
003D72  4324 3960               3147+       MVA   $TUID,R3            SET UP BUFFER STORAGE
003D76  6F13 18BA               3148+       BAL   TUMSGWTR*,R7        GO TO MESSAGE WRITER
                                3149+*
003D7A                          3150+$CONX  EQU    *
003D7A  C720 19D0               3151+       MVB    DEVADD,R7          GET DEVICE ADDRESS FROM MDI
003D7E  6013                    3152+       SVC    RICB               RELEASE INTERRUPT CONTROL BLOCK
003D80  6812 39A2               3153+       B      TURTN*             RETURN TO MDI SUPERVISOR
                                3154+*
003D84  0009                    3155+BEGIN  DC    A(0009)             NUMBER OF LINES TO PRINT
003D86  0008                    3156+       DC    A(0008)             LINE LENGTH = 8 CHAR
003D88  5C5C40C1C2D6D9E3        3157+       DC    C'** ABORT'
003D90  0028                    3158+       DC    A(0040)             LINE LENGTH = 40 CHAR
003D92  E3E4C9C440C9D6C9D       3159+       DC    C'TUID IOIN ISB  INST SECT  ID  DATA CSCC '
003DBA  0028                    3160+       DC    A(0040)             LINE LENGTH = 40 CHAR
003DBC  4040404040404040        3161+LINE1  DC    C'                                        '
003DE4  0028                    3162+       DC    A(0040)             LINE LENGTH = 40 CHAR
003DE6  C3D5E3D340C4C3C2F       3163+       DC    C'CNTL DCB1 DCB2 DCB3 DCB4 CHAD BYCT ADRS '
003E0E  0028                    3164+       DC    A(0040)             LINE LENGTH = 40 CHAR
003E10  4040404040404040        3165+LINE2  DC    C'                                        '
003E38  0028                    3166+       DC    A(0040)             LINE LENGTH = 40 CHAR
003E3A  C3E260F040C3E260F       3167+       DC    C'CS-0 CS-1 CS-2 CS-3 CS-4 CS-5 CS-6 CS-7 '
003E62  0028                    3168+       DC    A(0040)             LINE LENGTH = 40 CHAR
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 LOCTR  OBJECT TEXT        STMT SOURCE STATEMENT                                COPYRIGHT IBM CORP 1976
003E64  40404040404040404 3169+LINE3  DC    C'                '
003E8C  0028              3170+       DC    A(0040)                 LINE LENGTH = 40 CHAR
003E8E  C3E2260F840C3E260F 3171+      DC    C'CS-8 CS-9 CS-A CS-B CS-C    '
003EB6  0028              3172+       DC    A(0040)                 LINE LENGTH = 40 CHAR
003EB8  40404040404040404 3173+LINE4  DC    C'                '
                          3174+*
003EE0  0000              3175+BUFPT  DC    A(*-*)
003EE2  3D84              3176+DC2PT  DC    A(BEGIN)
003EE4  0101              3177+FIXTU  DC    X'0101'
003EE6  0101              3178+FAKETU   DC  X'0101'
00F1F0                    3179+PIDMSG10 EQU   X'F1F0'
000080                    3180+BIT0080  EQU   X'0080'
                          3181+*
                          3182+*      DATA CONTROL BLOCK FOR CONVERTING HEX TO EBCDIC
                          3183+*
003EE8  003A              3184+HEBLK  DC    A(58)                   NUMBER OF BYTES TO CONVERT
003EEA  3960              3185+       DC    A($TUID)                FROM ADRS
003EEC  181A              3186+       DC    A(TUWORK)               AND THE TO ADRS
                          3187      COPY  T7A28                   19MAY78
                          3188 T7A28  TUIT  X7A28
                          3189+*****************************************************************06FEB76**
                          3190+*
                          3191+* TEST UNIT
                          3192+*
                          3193+*      WRITE DIAGNOSTIC REGISTER 1 LOOP
                          3194+*
                          3195+* PURPOSE
                          3196+*
                          3197+*      WRITE TO CAP DIAGNOSTIC WORD 1 USING DATA PATTERN PASSED
                          3198+*      TO TEST UNIT BY MAP. NO RESULTS WORDS ARE RETURNED.
                          3199+*
                          3200+* CALLING SEQUENCE
                          3201+*
                          3202+*      MDI=$TUXX,'T7A28,REPT=L7A28,PLNG=4,PARM=XXXX'
                          3203+*
                          3204+* RETURN CONTROL
                          3205+*
                          3206+*      B     TURTN*                  RETURN TO MDI SUPERVISOR
                          3207+*
                          3208+*****************************************************************
003EEE  6F0D 39A2         3209+T7A28  MVW   R7,TURTN                SAVE RETURN ADDRESS
003EF2  4020 3960 7A28    3210+       MVWI  X'7A28',$TUID           SAVE TU ID FOR DISPLAY
003EF8  4424 395A         3211+       MVA   OPTN1,R4                SET UP POINTER ADRS IN R4
003EFC  6E03 3CE4         3212+       BAL   $CONC,R6                CLEAR DEV DEP STG AND CONNECT I/O BL
003F00  3F16              3213+       DC    A(X7A28)                ERROR ADRS FOR INVALID PREP
                          3214+*
003F02  4C64              3215 L7A28  TBTS   (R4,XE)                SET EXP ERROR CNTL BIT ON
003F04  8838 189A 3CD4    3216        MVW   TUPARM1*,IODCB          LOAD DATA PATTERN IN 2ND WD OF IDCB
003F0A  4020 3CD6 0048    3217        MVWI  X'0048',IOMOD           SETUP WRITE DIAG WD 1 IDCB MOD
003F10  6E03 3B5C         3218        BAL   $WRT0,R6                WRITE DIAG WORD 1
003F14  3F16              3219        DC    A(X7A28)                RETURN TO MDI IF ERROR
003F16  6812 39A2         3220 X7A28  B     TURTN*                  RETURN TO MDI
                          3222      COPY  T7A29                   19MAY78
                          3223 T7A29  TUIT  X7A29
                          3224+*****************************************************************06FEB76**
                          3225+*
                          3226+* TEST UNIT
                          3227+*
                          3228+*      WRITE/READ DIAGNOSTIC REGISTER 1 LOOP
                          3229+*
                          3230+* PURPOSE
                          3231+*
                          3232+*      WRITE TO CAP DIAGNOSTIC WORD 1 USING DATA PATTERN PASSED
                          3233+*      TO TEST UNIT BY THE MAP AND THEN READ DIAGNOSTIC WORD 1.
                          3234+*      NO RESULT WORDS ARE RETURNED.
                          3235+*
                          3236+* CALLING SEQUENCE
                          3237+*
                          3238+*      MDI=$TUXX,'T7A29,REPT=L7A29,PLNG=4,PARM=XXXX'
                          3239+*
                          3240+* RETURN CONTROL
                          3241+*
                          3242+*      B     TURTN*                  RETURN TO MDI SUPERVISOR
                          3243+*
                          3244+*****************************************************************
003F1A  6F0D 39A2         3245+T7A29  MVW   R7,TURTN                SAVE RETURN ADDRESS
003F1E  4020 3960 7A29    3246+       MVWI  X'7A29',$TUID           SAVE TU ID FOR DISPLAY
003F24  4424 395A         3247+       MVA   OPTN1,R4                SET UP POINTER ADRS IN R4
003F28  6E03 3CE4         3248+       BAL   $CONC,R6                CLEAR DEV DEP STG AND CONNECT I/O BL
003F2C  3F60              3249+       DC    A(X7A29)                ERROR ADRS FOR INVALID PREP
                          3250+*
003F2E  8838 189A 3CD4    3251 L7A29  MVW    TUPARM1*,IODCB         MOVE PATTERN TO 2ND WD OF IDCB
003F34  4020 3CD6 0048    3252        MVWI  X'0048',IOMOD           SETUP WRITE DIAG WD 1 IDCB MOD
003F3A  4C64              3253        TBTS   (R4,XE)                SET EXPT ERROR CNTL BIT ON
003F3C  6E03 3B5C         3254        BAL   $WRT0,R6                WRITE DIAG WORD 1
003F40  3F60              3255        DC    A(X7A29)                RETURN TO MDI IF ERROR
003F42  4CA1              3256        TBTR   (R4,ER)                INTERRUPT ERROR?
003F44  120D              3257        JON   X7A29                   YES - RETURN TO MDI
003F46  4020 3A32 2088    3258        MVWI  X'2088',RDDCB           LOAD READ DIAG WORD 1 CNTL WD
003F4C  4020 3A3E 0002    3259        MVWI  2,RDDCB+12              SETUP BYTE CNT TO READ WD 1
003F52  4020 3A40 3F64    3260        MVA   DATBF,RDDCB+14          SETUP ADDR OF READ BUFFER
003F58  4C64              3261        TBTS   (R4,XE)                SET EXPT ERROF CNTL BIT ON
003F5A  6E03 3BAC         3262        BAL   $DGBD,R6                READ DIAG WORD 1
003F5E  3F60              3263        DC    A(X7A29)                RETURN TO MDI IF ERROR
003F60  6812 39A2         3264 X7A29  B     TURTN*                  RETURN TO MDI
                          3265 *
003F64  0000              3266 DATBF  DC    A(*-*)
000000                    3268        END
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CROSS-REFERENCE LISTING COPYRIGHT IBM CORP 1976

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DECLARED  NAME     ATTRIBUTES AND REFERENCES
    3081  $CONC     ADDRESS. HEX LOCATION(00003CE4) IN CSECT(I7A14   ) LENGTH(2)
                    3212  3248
    2206  $DGRD     ADDRESS. HEX LOCATION(00003BAC) IN CSECT(I7A14   ) LENGTH(6)
                    3262
    1787  $INTL     ADDRESS. HEX LOCATION(000039A0) IN CSECT(I7A14   ) LENGTH(2)
                    2998  3090
    1752  $IOIN     ADDRESS. HEX LOCATION(00003962) IN CSECT(I7A14   ) LENGTH(2)
                    2187  2852  2912  2992  3029  3092
    1753  $ISB      ADDRESS. HEX LOCATION(00003964) IN CSECT(I7A14   ) LENGTH(2)
                    2188  2853  2993  3034  3093
    1737  $LE       ABSOLUTE. HEX VALUE(00000026)
                    2858  3000
    1751  $TUID     ADDRESS. HEX LOCATION(00003960) IN CSECT(I7A14   ) LENGTH(2)
                    1797  3147  3185  3210  3246
    2179  $WRT0     ADDRESS. HEX LOCATION(00003B5C) IN CSECT(I7A14   ) LENGTH(4)
                    3218  3254
    2200  $WRT1     ADDRESS. HEX LOCATION(00003B9C) IN CSECT(I7A14   ) LENGTH(2)
                    2197
     102  @DCADD1   ADDRESS. HEX LOCATION(000019B8) IN CSECT(I7A14   ) LENGTH(1)
                    3144
     103  @DCADD2   ADDRESS. HEX LOCATION(000019BA) IN CSECT(I7A14   ) LENGTH(1)
                    3145
      39  @FIXT     ABSOLUTE. HEX VALUE(00000101)
                     657   672   687   717   912   933   936   939   960
                     963   966   987   990   993  1014  1017  1020  1041
                    1044  1047  1068  1071  1074  1095  1098  1101  1122
                    1125  1128  1149  1152  1155  1176  1179  1182  1203
                    1206  1209  1230  1233  1236  1257  1260  1263  1284
                    1287  1290  1311  1314  1317  1338  1341  1344
      41  @GOTO     ABSOLUTE. HEX VALUE(00000200)
                     702
      44  @QUXX     ABSOLUTE. HEX VALUE(00000400)
                     708   915   924   942   951   969   978   996  1005
                    1023  1032  1050  1059  1077  1086  1104  1113  1131
                    1140  1158  1167  1185  1194  1212  1221  1239  1248
                    1266  1275  1293  1302  1320  1329
      45  @TUXX     ABSOLUTE. HEX VALUE(00000500)
                     645   660   675   690   720   732   744   756   768
                     780   792   804   816   828   840   852   864   876
                     888   900
    3155  BEGIN     ADDRESS. HEX LOCATION(00003D84) IN CSECT(I7A14   ) LENGTH(2)
                    3176
    3180  BIT0080   ABSOLUTE. HEX VALUE(00000080)
                    3146
    3175  BUFPT     ADDRESS. HEX LOCATION(00003EE0) IN CSECT(I7A14   ) LENGTH(2)
                    3131
    1741  CE        ABSOLUTE. HEX VALUE(0000002A)
                    2837  2951  3021
    1826  CICB      ABSOLUTE. HEX VALUE(00000014)
                    3087
    1923  CLDCB     ADDRESS. HEX LOCATION(000039C2) IN CSECT(I7A14   ) LENGTH(2)
                    2129
    1739  CS        ABSOLUTE. HEX VALUE(00000028)
                    2838  2841  2949  2990  3019
    1740  CSA       ABSOLUTE. HEX VALUE(00000029)
                    3024
    1770  CSBUF     ADDRESS. HEX LOCATION(00003980) IN CSECT(I7A14   ) LENGTH(1)
                    1968  2181  2849
    1961  CSDCB     ADDRESS. HEX LOCATION(00003A02) IN CSECT(I7A14   ) LENGTH(2)
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    3266  DATBF     ADDRESS. HEX LOCATION(00003F64) IN CSECT(I7A14   ) LENGTH(2)
                    3260
    1760  DCBUF     ADDRESS. HEX LOCATION(00003970) IN CSECT(I7A14   ) LENGTH(1)
                    2184  2844
    3176  DC2PT     ADDRESS. HEX LOCATION(00003EE2) IN CSECT(I7A14   ) LENGTH(2)
                    3145
     105  DEVADD    ADDRESS. HEX LOCATION(000019D0) IN CSECT(I7A14   ) LENGTH(1)
                    1790  3042  3051  3151
    1755  DEV1      ADDRESS. HEX LOCATION(00003968) IN CSECT(I7A14   ) LENGTH(2)
                    1759  3083
    1758  DEV4      ADDRESS. HEX LOCATION(0000396E) IN CSECT(I7A14   ) LENGTH(2)
                    2952  2953
    1912  DGDCB     ADDRESS. HEX LOCATION(000039B2) IN CSECT(I7A14   ) LENGTH(2)
                    2176
      67  DUMMY     ABSOLUTE. HEX VALUE(00000000)
                     636  1346  1364
    1347  ENTPT     ADDRESS. HEX LOCATION(00002B8C) IN CSECT(I7A14   ) LENGTH(1)
                     198
      47  EQ        ABSOLUTE. HEX VALUE(00000000)
                     723   735   747   759   771   783   795   807   819
                     831   843   855   867   879   891   903
    1732  ER        ABSOLUTE. HEX VALUE(00000021)
                    2190  2855  2876  2959  3001  3026  3256
    1812  EXIT      ABSOLUTE. HEX VALUE(00000006)
                    3008
    3178  FAKETU    ADDRESS. HEX LOCATION(00003EE6) IN CSECT(I7A14   ) LENGTH(2)
                    3144
    1426  F00062    ADDRESS. HEX LOCATION(00002D8E) IN CSECT(I7A14   ) LENGTH(1)
                     934   961   988  1015  1042  1069  1096  1123  1150
                    1177  1204  1231  1258  1285  1312  1339
    1372  F00086    ADDRESS. HEX LOCATION(00002B9A) IN CSECT(I7A14   ) LENGTH(1)
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    1382  F00091    ADDRESS. HEX LOCATION(00002BFA) IN CSECT(I7A14   ) LENGTH(1)
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    1392  F00096    ADDRESS. HEX LOCATION(00002C5A) IN CSECT(I7A14   ) LENGTH(1)
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    1402  F00101    ADDRESS. HEX LOCATION(00002CBA) IN CSECT(I7A14   ) LENGTH(1)
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    1406  F00107    ADDRESS. HEX LOCATION(00002CCE) IN CSECT(I7A14   ) LENGTH(1)
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    1416  F00173    ADDRESS. HEX LOCATION(00002D2E) IN CSECT(I7A14   ) LENGTH(1)
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    1566  F00186    ADDRESS. HEX LOCATION(000033BA) IN CSECT(I7A14   ) LENGTH(1)
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    1574  F00188    ADDRESS. HEX LOCATION(00003414) IN CSECT(I7A14   ) LENGTH(1)
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    1582  F00201    ADDRESS. HEX LOCATION(0000346E) IN CSECT(I7A14   ) LENGTH(1)
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    1590  F00203    ADDRESS. HEX LOCATION(000034C8) IN CSECT(I7A14   ) LENGTH(1)
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    1598  F00216    ADDRESS. HEX LOCATION(00003522) IN CSECT(I7A14   ) LENGTH(1)
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DECLARED  NAME     ATTRIBUTES AND REFERENCES
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  1606    F00218     ADDRESS. HEX LOCATION(0000357C) IN CSECT(I7A14   ) LENGTH(1)
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  1614    F00231     ADDRESS. HEX LOCATION(000035D6) IN CSECT(I7A14   ) LENGTH(1)
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  1622    F00233     ADDRESS. HEX LOCATION(00003630) IN CSECT(I7A14   ) LENGTH(1)
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  1630    F00246     ADDRESS. HEX LOCATION(0000368A) IN CSECT(I7A14   ) LENGTH(1)
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  1638    F00248     ADDRESS. HEX LOCATION(000036E4) IN CSECT(I7A14   ) LENGTH(1)
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  1646    F00261     ADDRESS. HEX LOCATION(0000373E) IN CSECT(I7A14   ) LENGTH(1)
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  1654    F00263     ADDRESS. HEX LOCATION(00003798) IN CSECT(I7A14   ) LENGTH(1)
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  1662    F00276     ADDRESS. HEX LOCATION(000037F2) IN CSECT(I7A14   ) LENGTH(1)
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  1670    F00278     ADDRESS. HEX LOCATION(0000384C) IN CSECT(I7A14   ) LENGTH(1)
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  1678    F00291     ADDRESS. HEX LOCATION(000038A6) IN CSECT(I7A14   ) LENGTH(1)
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  1686    F00293     ADDRESS. HEX LOCATION(00003900) IN CSECT(I7A14   ) LENGTH(1)
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  1438    F00306     ADDRESS. HEX LOCATION(00002E1A) IN CSECT(I7A14   ) LENGTH(1)
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  1446    F00308     ADDRESS. HEX LOCATION(00002E74) IN CSECT(I7A14   ) LENGTH(1)
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  1454    F00321     ADDRESS. HEX LOCATION(00002ECE) IN CSECT(I7A14   ) LENGTH(1)
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  1462    F00323     ADDRESS. HEX LOCATION(00002F28) IN CSECT(I7A14   ) LENGTH(1)
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  1470    F00336     ADDRESS. HEX LOCATION(00002F82) IN CSECT(I7A14   ) LENGTH(1)
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  1478    F00338     ADDRESS. HEX LOCATION(00002FDC) IN CSECT(I7A14   ) LENGTH(1)
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  1494    F00353     ADDRESS. HEX LOCATION(00003090) IN CSECT(I7A14   ) LENGTH(1)
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  1502    F00366     ADDRESS. HEX LOCATION(000030EA) IN CSECT(I7A14   ) LENGTH(1)
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  1510    F00368     ADDRESS. HEX LOCATION(00003144) IN CSECT(I7A14   ) LENGTH(1)
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  1518    F00381     ADDRESS. HEX LOCATION(0000319E) IN CSECT(I7A14   ) LENGTH(1)
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  1526    F00383     ADDRESS. HEX LOCATION(000031F8) IN CSECT(I7A14   ) LENGTH(1)
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  1534    F00396     ADDRESS. HEX LOCATION(00003252) IN CSECT(I7A14   ) LENGTH(1)
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  1542    F00398     ADDRESS. HEX LOCATION(000032AC) IN CSECT(I7A14   ) LENGTH(1)
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  1550    F00411     ADDRESS. HEX LOCATION(00003306) IN CSECT(I7A14   ) LENGTH(1)
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  1558    F00413     ADDRESS. HEX LOCATION(00003360) IN CSECT(I7A14   ) LENGTH(1)
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  3184    HEBLK      ADDRESS. HEX LOCATION(00003EE8) IN CSECT(I7A14   ) LENGTH(2)
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  1832    HTOE       ABSOLUTE. HEX VALUE(0000001A)
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  1808    IDLE       ABSOLUTE. HEX VALUE(00000002)
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  2053    ID00       ADDRESS. HEX LOCATION(00003A9C) IN CSECT(I7A14   ) LENGTH(2)
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  1734    IN         ABSOLUTE. HEX VALUE(00000023)
                    2189  2856  2868  2989
  3051    INTBL      ADDRESS. HEX LOCATION(00003CDC) IN CSECT(I7A14   ) LENGTH(2)
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  2946    INTER      ADDRESS. HEX LOCATION(00003C40) IN CSECT(I7A14   ) LENGTH(2)
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  2955    INTES      ADDRESS. HEX LOCATION(00003C58) IN CSECT(I7A14   ) LENGTH(2)
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  2959    INTET      ADDRESS. HEX LOCATION(00003C60) IN CSECT(I7A14   ) LENGTH(2)
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  2986    INTOK      ADDRESS. HEX LOCATION(00003C64) IN CSECT(I7A14   ) LENGTH(2)
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  3008    INTRX      ADDRESS. HEX LOCATION(00003C94) IN CSECT(I7A14   ) LENGTH(2)
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  2989    INTR1      ADDRESS. HEX LOCATION(00003C6C) IN CSECT(I7A14   ) LENGTH(2)
                    2954  2958  2960
  2994    INTR2      ADDRESS. HEX LOCATION(00003C7A) IN CSECT(I7A14   ) LENGTH(1)
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  3002    INTR3      ADDRESS. HEX LOCATION(00003C88) IN CSECT(I7A14   ) LENGTH(2)
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  3042    IOBLK      ADDRESS. HEX LOCATION(00003CD0) IN CSECT(I7A14   ) LENGTH(2)
                    2192  2857  3091
  3044    IODCB      ADDRESS. HEX LOCATION(00003CD4) IN CSECT(I7A14   ) LENGTH(2)
                    2126  2129  2132  2140  2151  2154  2157  2160  2168
                    2172  2176  2203  2206  2839  2845  3090  3216  3251
  3045    IOMOD      ADDRESS. HEX LOCATION(00003CD6) IN CSECT(I7A14   ) LENGTH(2)
                    2193  2194  2831  2834  2840  3217  3252
    37    I7A14      CSECT. START(00002500) LENGTH(6758) ESDID(1)
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  3161    LINE1      ADDRESS. HEX LOCATION(00003DBC) IN CSECT(I7A14   ) LENGTH(40)
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  1754    LSTIO      ADDRESS. HEX LOCATION(00003966) IN CSECT(I7A14   ) LENGTH(2)
                    2179  2843  3094
  3215    L7A28      ADDRESS. HEX LOCATION(00003F02) IN CSECT(I7A14   ) LENGTH(2)
                     711   918   927   945   954   972   981   999  1008
                    1026  1035  1053  1062  1080  1089  1107  1116  1134
                    1143  1161  1170  1188  1197  1215  1224  1242  1251
                    1269  1278  1296  1305  1323  1332
  1731    MI         ABSOLUTE. HEX VALUE(00000020)
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  3135    MVBUF      ADDRESS. HEX LOCATION(00003D48) IN CSECT(I7A14   ) LENGTH(2)
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  1743    NG         ABSOLUTE. HEX VALUE(0000002C)
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  1738    NI         ABSOLUTE. HEX VALUE(00000027)
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   645    N00001     ADDRESS. HEX LOCATION(000026B0) IN CSECT(I7A14   ) LENGTH(2)
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DECLARED  NAME     ATTRIBUTES AND REFERENCES
   657    N00002     ADDRESS. HEX LOCATION(000026C2) IN CSECT(I7A14   ) LENGTH(2)
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   660    N00003     ADDRESS. HEX LOCATION(000026C6) IN CSECT(I7A14   ) LENGTH(2)
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   672    N00004     ADDRESS. HEX LOCATION(000026D8) IN CSECT(I7A14   ) LENGTH(2)
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   675    N00005     ADDRESS. HEX LOCATION(000026DC) IN CSECT(I7A14   ) LENGTH(2)
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   687    N00006     ADDRESS. HEX LOCATION(000026F0) IN CSECT(I7A14   ) LENGTH(2)
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   690    N00007     ADDRESS. HEX LOCATION(000026F4) IN CSECT(I7A14   ) LENGTH(2)
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   702    N00008     ADDRESS. HEX LOCATION(00002706) IN CSECT(I7A14   ) LENGTH(2)
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   708    N00009     ADDRESS. HEX LOCATION(00002712) IN CSECT(I7A14   ) LENGTH(2)
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   717    N00010     ADDRESS. HEX LOCATION(00002722) IN CSECT(I7A14   ) LENGTH(2)
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   720    N00011     ADDRESS. HEX LOCATION(00002726) IN CSECT(I7A14   ) LENGTH(2)
                     345  709 1360
   732    N00012     ADDRESS. HEX LOCATION(00002740) IN CSECT(I7A14   ) LENGTH(2)
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   744    N00013     ADDRESS. HEX LOCATION(0000275A) IN CSECT(I7A14   ) LENGTH(2)
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   756    N00014     ADDRESS. HEX LOCATION(00002774) IN CSECT(I7A14   ) LENGTH(2)
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   768    N00015     ADDRESS. HEX LOCATION(0000278E) IN CSECT(I7A14   ) LENGTH(2)
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   780    N00016     ADDRESS. HEX LOCATION(000027A8) IN CSECT(I7A14   ) LENGTH(2)
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   840    N00021     ADDRESS. HEX LOCATION(0000282A) IN CSECT(I7A14   ) LENGTH(2)
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   915    N00028     ADDRESS. HEX LOCATION(000028CA) IN CSECT(I7A14   ) LENGTH(2)
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   939    N00032     ADDRESS. HEX LOCATION(000028F2) IN CSECT(I7A14   ) LENGTH(2)
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   942    N00033     ADDRESS. HEX LOCATION(000028F6) IN CSECT(I7A14   ) LENGTH(2)
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   963    N00036     ADDRESS. HEX LOCATION(0000291A) IN CSECT(I7A14   ) LENGTH(2)
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   966    N00037     ADDRESS. HEX LOCATION(0000291E) IN CSECT(I7A14   ) LENGTH(2)
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   978    N00039     ADDRESS. HEX LOCATION(00002932) IN CSECT(I7A14   ) LENGTH(2)
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   987    N00040     ADDRESS. HEX LOCATION(00002942) IN CSECT(I7A14   ) LENGTH(2)
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   990    N00041     ADDRESS. HEX LOCATION(00002946) IN CSECT(I7A14   ) LENGTH(2)
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  1020    N00047     ADDRESS. HEX LOCATION(00002976) IN CSECT(I7A14   ) LENGTH(2)
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  1059    N00054     ADDRESS. HEX LOCATION(000029B6) IN CSECT(I7A14   ) LENGTH(2)
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  1068    N00055     ADDRESS. HEX LOCATION(000029C6) IN CSECT(I7A14   ) LENGTH(2)
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  1071    N00056     ADDRESS. HEX LOCATION(000029CA) IN CSECT(I7A14   ) LENGTH(2)
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  1074    N00057     ADDRESS. HEX LOCATION(000029CE) IN CSECT(I7A14   ) LENGTH(2)
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CROSS-REFERENCE LISTING

DECLARED	NAME	ATTRIBUTES AND REFERENCES
		483 1051
1077	N00058	ADDRESS. HEX LOCATION(000029D2) IN CSECT(I7A14) LENGTH(2)
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1086	N00059	ADDRESS. HEX LOCATION(000029E2) IN CSECT(I7A14) LENGTH(2)
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1095	N00060	ADDRESS. HEX LOCATION(000029F2) IN CSECT(I7A14) LENGTH(2)
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1098	N00061	ADDRESS. HEX LOCATION(000029F6) IN CSECT(I7A14) LENGTH(2)
		495 1087
1101	N00062	ADDRESS. HEX LOCATION(000029FA) IN CSECT(I7A14) LENGTH(2)
		498 1078
1104	N00063	ADDRESS. HEX LOCATION(000029FE) IN CSECT(I7A14) LENGTH(2)
		501 817
1113	N00064	ADDRESS. HEX LOCATION(00002A0E) IN CSECT(I7A14) LENGTH(2)
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1122	N00065	ADDRESS. HEX LOCATION(00002A1E) IN CSECT(I7A14) LENGTH(2)
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1125	N00066	ADDRESS. HEX LOCATION(00002A22) IN CSECT(I7A14) LENGTH(2)
		510 1114
1128	N00067	ADDRESS. HEX LOCATION(00002A26) IN CSECT(I7A14) LENGTH(2)
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1131	N00068	ADDRESS. HEX LOCATION(00002A2A) IN CSECT(I7A14) LENGTH(2)
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1140	N00069	ADDRESS. HEX LOCATION(00002A3A) IN CSECT(I7A14) LENGTH(2)
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1149	N00070	ADDRESS. HEX LOCATION(00002A4A) IN CSECT(I7A14) LENGTH(2)
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1152	N00071	ADDRESS. HEX LOCATION(00002A4E) IN CSECT(I7A14) LENGTH(2)
		525 1141
1155	N00072	ADDRESS. HEX LOCATION(00002A52) IN CSECT(I7A14) LENGTH(2)
		528 1132
1158	N00073	ADDRESS. HEX LOCATION(00002A56) IN CSECT(I7A14) LENGTH(2)
		531 793
1167	N00074	ADDRESS. HEX LOCATION(00002A66) IN CSECT(I7A14) LENGTH(2)
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1176	N00075	ADDRESS. HEX LOCATION(00002A76) IN CSECT(I7A14) LENGTH(2)
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1179	N00076	ADDRESS. HEX LOCATION(00002A7A) IN CSECT(I7A14) LENGTH(2)
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1182	N00077	ADDRESS. HEX LOCATION(00002A7E) IN CSECT(I7A14) LENGTH(2)
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1185	N00078	ADDRESS. HEX LOCATION(00002A82) IN CSECT(I7A14) LENGTH(2)
		546 781
1194	N00079	ADDRESS. HEX LOCATION(00002A92) IN CSECT(I7A14) LENGTH(2)
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1203	N00080	ADDRESS. HEX LOCATION(00002AA2) IN CSECT(I7A14) LENGTH(2)
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1206	N00081	ADDRESS. HEX LOCATION(00002AA6) IN CSECT(I7A14) LENGTH(2)
		555 1195
1209	N00082	ADDRESS. HEX LOCATION(00002AAA) IN CSECT(I7A14) LENGTH(2)
		558 1186
1212	N00083	ADDRESS. HEX LOCATION(00002AAE) IN CSECT(I7A14) LENGTH(2)
		561 769
1221	N00084	ADDRESS. HEX LOCATION(00002ABE) IN CSECT(I7A14) LENGTH(2)
		564
1230	N00085	ADDRESS. HEX LOCATION(00002ACE) IN CSECT(I7A14) LENGTH(2)
		567
1233	N00086	ADDRESS. HEX LOCATION(00002AD2) IN CSECT(I7A14) LENGTH(2)
		570 1222
1236	N00087	ADDRESS. HEX LOCATION(00002AD6) IN CSECT(I7A14) LENGTH(2)
		573 1213
1239	N00088	ADDRESS. HEX LOCATION(00002ADA) IN CSECT(I7A14) LENGTH(2)
		576 757
1248	N00089	ADDRESS. HEX LOCATION(00002AEA) IN CSECT(I7A14) LENGTH(2)
		579
1257	N00090	ADDRESS. HEX LOCATION(00002AFA) IN CSECT(I7A14) LENGTH(2)
		582
1260	N00091	ADDRESS. HEX LOCATION(00002AFE) IN CSECT(I7A14) LENGTH(2)
		585 1249
1263	N00092	ADDRESS. HEX LOCATION(00002B02) IN CSECT(I7A14) LENGTH(2)
		588 1240
1266	N00093	ADDRESS. HEX LOCATION(00002B06) IN CSECT(I7A14) LENGTH(2)
		591 745
1275	N00094	ADDRESS. HEX LOCATION(00002B16) IN CSECT(I7A14) LENGTH(2)
		594
1284	N00095	ADDRESS. HEX LOCATION(00002B26) IN CSECT(I7A14) LENGTH(2)
		597
1287	N00096	ADDRESS. HEX LOCATION(00002B2A) IN CSECT(I7A14) LENGTH(2)
		600 1276
1290	N00097	ADDRESS. HEX LOCATION(00002B2E) IN CSECT(I7A14) LENGTH(2)
		603 1267
1293	N00098	ADDRESS. HEX LOCATION(00002B32) IN CSECT(I7A14) LENGTH(2)
		606 733
1302	N00099	ADDRESS. HEX LOCATION(00002B42) IN CSECT(I7A14) LENGTH(2)
		609
1311	N00100	ADDRESS. HEX LOCATION(00002B52) IN CSECT(I7A14) LENGTH(2)
		612
1314	N00101	ADDRESS. HEX LOCATION(00002B56) IN CSECT(I7A14) LENGTH(2)
		615 1303
1317	N00102	ADDRESS. HEX LOCATION(00002B5A) IN CSECT(I7A14) LENGTH(2)
		618 1294
1320	N00103	ADDRESS. HEX LOCATION(00002B5E) IN CSECT(I7A14) LENGTH(2)
		621 721
1329	N00104	ADDRESS. HEX LOCATION(00002B6E) IN CSECT(I7A14) LENGTH(2)
		624
1338	N00105	ADDRESS. HEX LOCATION(00002B7E) IN CSECT(I7A14) LENGTH(2)
		627
1341	N00106	ADDRESS. HEX LOCATION(00002B82) IN CSECT(I7A14) LENGTH(2)
		630 1330
1344	N00107	ADDRESS. HEX LOCATION(00002B86) IN CSECT(I7A14) LENGTH(2)
		633 1321
58	OF	ABSOLUTE. HEX VALUE(00000202)
		648 663 678
57	ON	ABSOLUTE. HEX VALUE(00000200)
		693
1696	OPTN1	ADDRESS. HEX LOCATION(0000395A) IN CSECT(I7A14) LENGTH(2)
		2948 2988 3211 3247
1719	OPTN3	ADDRESS. HEX LOCATION(0000395E) IN CSECT(I7A14) LENGTH(2)
		3037 3085
101	PARMARA	ADDRESS. HEX LOCATION(0000196E) IN CSECT(I7A14) LENGTH(1)
		655 670 685 700 715 730 742 754 766
		778 790 802 814 826 838 850 862 874

CROSS-REFERENCE LISTING

DECLARED	NAME	ATTRIBUTES AND REFERENCES
		886 898 910 922 931 949 958 976 985
		1003 1012 1030 1039 1057 1066 1084 1093 1111
		1120 1138 1147 1165 1174 1192 1201 1219 1228
		1246 1255 1273 1282 1300 1309 1327 1336
69	PID	ADDRESS. HEX LOCATION(00001800) IN CSECT(I7A14) 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 3143
3179	PIDMSGID	ABSOLUTE. HEX VALUE(0000F1F0)
		3143
1818	PREP	ABSOLUTE. HEX VALUE(0000000C)
		3095
1994	RDDCB	ADDRESS. HEX LOCATION(00003A32) IN CSECT(I7A14) LENGTH(2)
		2148 2149 2151 2206 2207 2208 3258 3259 3260
1825	RICB	ABSOLUTE. HEX VALUE(00000013)
		3152
2016	RKDCB	ADDRESS. HEX LOCATION(00003A52) IN CSECT(I7A14) LENGTH(2)
		2160 2165
2027	RMDCB	ADDRESS. HEX LOCATION(00003A62) IN CSECT(I7A14) LENGTH(2)
		2140
2050	RSBA	ADDRESS. HEX LOCATION(00003A8C) IN CSECT(I7A14) LENGTH(2)
		1916 1932 1943 1954 1976 1987 1998 2009 2020
		2031
1939	RSDCB	ADDRESS. HEX LOCATION(000039E2) IN CSECT(I7A14) LENGTH(2)
		2132 2137
0	R0	REGISTER. HEX VALUE(00000000)
		2193 2195 2196
0	R1	REGISTER. HEX VALUE(00000001)
		3132 3135 3138 3141
0	R2	REGISTER. HEX VALUE(00000002)
		3137 3138
0	R3	REGISTER. HEX VALUE(00000003)
		2079 2081 2133 2136 2143 2144 2147 2150 2161
		2164 2181 2183 2186 2188 2209 2210 2831 2844
		2847 2848 2851 2853 2910 2911 2912 2946 2947
		2953 2957 2986 2987 2992 3005 3037 3082 3084
		3085 3093 3130 3131 3135 3147
0	R4	REGISTER. HEX VALUE(00000004)
		2189 2190 2191 2837 2838 2841 2855 2856 2858
		2859 2862 2868 2876 2948 2949 2951 2955 2959
		2988 2989 2990 3000 3001 3002 3004 3007 3017
		3019 3021 3024 3026 3211 3215 3247 3253 3256
		3261
0	R5	REGISTER. HEX VALUE(00000005)
		2080 2081 2134 2136 2142 2144 2148 2150 2162
		2164 2181 2183 2184 2186 2208 2210 2845 2847
		2849 2851 2867 2874 2996 2997 2998 3029 3030
		3032 3034 3083 3084 3129 3142
0	R6	REGISTER. HEX VALUE(00000006)
		2082 2083 2179 2843 2863 2877 2913 3018 3023
		3025 3033 3036 3038 3088 3094 3096 3134 3139
		3140 3212 3218 3248 3254 3262
0	R7	REGISTER. HEX VALUE(00000007)
		1798 2078 2135 2141 2149 2163 2182 2185 2192
		2207 2846 2850 2857 2952 2993 3081 3086 3091
		3124 3133 3136 3148 3151 3209 3245
1759	SCTID	ADDRESS. HEX LOCATION(0000396B) IN CSECT(I7A14) LENGTH(2)
		1946 2023 2079 2134 2137 2162 2165
1950	SKDCB	ADDRESS. HEX LOCATION(000039F2) IN CSECT(I7A14) LENGTH(2)
		2126
1816	START	ABSOLUTE. HEX VALUE(0000000A)
		2860
104	SUPSTAT	ADDRESS. HEX LOCATION(000019C4) IN CSECT(I7A14) LENGTH(1)
		3146
92	TUMSGWTR	ADDRESS. HEX LOCATION(000018BA) IN CSECT(I7A14) LENGTH(1)
		3148
76	TUPARM1	ADDRESS. HEX LOCATION(0000189A) IN CSECT(I7A14) LENGTH(1)
		3216 3251
1788	TURTN	ADDRESS. HEX LOCATION(000039A2) IN CSECT(I7A14) LENGTH(2)
		3153 3209 3220 3245 3264
74	TUSTATUS	ADDRESS. HEX LOCATION(00001818) IN CSECT(I7A14) LENGTH(1)
		3123
75	TUWORK	ADDRESS. HEX LOCATION(0000181A) IN CSECT(I7A14) LENGTH(1)
		3126 3127 3128 3130 3186
1797	T7A02	ADDRESS. HEX LOCATION(000039AA) IN CSECT(I7A14) LENGTH(6)
		647 662 677 692 722 734 746 758 770
		782 794 806 818 830 842 854 866 878
		890 902
3209	T7A28	ADDRESS. HEX LOCATION(00003EEE) IN CSECT(I7A14) LENGTH(4)
		710 917 926 944 953 971 980 998 1007
		1025 1034 1052 1061 1079 1088 1106 1115 1133
		1142 1160 1169 1187 1196 1214 1223 1241 1250
		1268 1277 1295 1304 1322 1331
1983	VRDCB	ADDRESS. HEX LOCATION(00003A22) IN CSECT(I7A14) LENGTH(2)
		2154
2005	WKDCB	ADDRESS. HEX LOCATION(00003A42) IN CSECT(I7A14) LENGTH(2)
		2168 2169
1972	WRDCB	ADDRESS. HEX LOCATION(00003A12) IN CSECT(I7A14) LENGTH(2)
		2157 2203
1822	WRIT0	ABSOLUTE. HEX VALUE(00000010)
		2198
1823	WRIT1	ABSOLUTE. HEX VALUE(00000011)
		2200
2044	WRSID	ADDRESS. HEX LOCATION(00003A80) IN CSECT(I7A14) LENGTH(2)
		1935 2012 2080 2169 2173
1928	WSDCB	ADDRESS. HEX LOCATION(000039D2) IN CSECT(I7A14) LENGTH(2)
		2172 2173
1735	XE	ABSOLUTE. HEX VALUE(00000024)
		2955 3017 3215 3253 3261
1733	XI	ABSOLUTE. HEX VALUE(00000022)
		2191 2859 3002
2831	XIO	ADDRESS. HEX LOCATION(00003BC2) IN CSECT(I7A14) LENGTH(4)
		2127 2130 2138 2145 2152 2155 2158 2166 2170
		2174 2177
3017	XIOCK	ADDRESS. HEX LOCATION(00003C96) IN CSECT(I7A14) LENGTH(2)
		2869
3024	XIOCO	ADDRESS. HEX LOCATION(00003CA8) IN CSECT(I7A14) LENGTH(2)
		3022
3034	XIOCQ	ADDRESS. HEX LOCATION(00003CBE) IN CSECT(I7A14) LENGTH(4)

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DECLARED  NAME     ATTRIBUTES AND REFERENCES

                    3031
  2839    XIOCS     ADDRESS. HEX LOCATION(00003BD4) IN CSECT(I7A14   ) LENGTH(6)
                    3035
  3026    XIOCV     ADDRESS. HEX LOCATION(00003CAC) IN CSECT(I7A14   ) LENGTH(2)
                    3020
  3037    XIOCX     ADDRESS. HEX LOCATION(00003CCA) IN CSECT(I7A14   ) LENGTH(4)
                    3027
  2834    XIODG     ADDRESS. HEX LOCATION(00003BC8) IN CSECT(I7A14   ) LENGTH(6)
                    2204  2211
  2910    XIOER     ADDRESS. HEX LOCATION(00003C34) IN CSECT(I7A14   ) LENGTH(2)
                    3043
  2843    XIO1      ADDRESS. HEX LOCATION(00003BE4) IN CSECT(I7A14   ) LENGTH(4)
                    2832  2835
  2856    XIO2      ADDRESS. HEX LOCATION(00003C0A) IN CSECT(I7A14   ) LENGTH(2)
                    2842
  2868    XIO8      ADDRESS. HEX LOCATION(00003C20) IN CSECT(I7A14   ) LENGTH(2)
                    2199  2201  2875
    62    XTRNL     ABSOLUTE. HEX VALUE(00000001)
                     706
  3220    X7A28     ADDRESS. HEX LOCATION(00003F16) IN CSECT(I7A14   ) LENGTH(4)
                    3213  3219
  3264    X7A29     ADDRESS. HEX LOCATION(00003F60) IN CSECT(I7A14   ) LENGTH(4)
                    3249  3255  3257  3263

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