

LOCTR OBJECT TEXT STMT SOURCE STATEMENT COPYRIGHT IBM CORP 1976
3 ***** COPY LOG7812 ***** ** MAP EC HISTORY **
4 *****
5 *****
6 *****
7 ***** PREREQUISITES *****
8 *****
9 ***** NONE *****
10 *****
11 *****
12 *****
13 *****
14 *****
15 ***** CHANGES MADE TO MEET PROGRAM REQUIREMENTS *****
16 *****
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000232
00180C
00180E
001810
001818
00181A
00189A
00189C
00189E
0018A0
0018A2
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0018AA
0018AC
0018AE
0018B0
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0018BA
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0018C0
0018C2
0018C4
0018C6
0018C8
0018FC
001948
00196E
0019B8
0019BA
0019C4
0019D0
0019DA
0019E4
0019E8
0019F8
001A02
001A0C
001A16

LOCTR OBJECT TEXT STMT SOURCE STATEMENT COPYRIGHT IBM CORP 1976
002500 2C36
201 ***** DC A(ENTPT) ***** POINT TO MAP ENTRY POINT TABLE *****
202 *****
203 *****
204 *****
205 *****
206 ***** THE FOLLOWING TABLES ARE USED BY THE MDI SUPERVISOR (D3C00) *****
207 ***** TO LOCATE THE CORRECT RULE TO INVOKE, TO OBTAIN THE PPOPEP *****
208 ***** PARAMETERS TO PASS TO THE TU'S AND TO PASS TO THE OPERATOR *****
209 ***** THE INDICATED MESSAGE(S). THESE ARE FOUR TABLES USED FOR THIS *****
210 ***** PURPOSE THEY ARE: *****
211 *****
212 ***** STEP AND RULE ADDRESS TABLE *****
213 ***** THIS TABLE GIVES THE ADDRESS OF THE RULE TO INVOKE AND *****
214 ***** THE ASSOCIATED STEP DECIMAL STEP NUMBER OF THAT RULE. *****
215 ***** ENTRIES ARE AS FOLLOWS *****
216 ***** A) AN ADDRESS OF THE RULE DC START AREA *****
217 ***** B) THE STEP NUMBER IN DECIMAL *****
218 ***** C) AN EQUATE FOR THE STEP NUMBER *****
219 *****
220 ***** RULE INFORMATION TABLE *****
221 ***** THIS TABLE CONTAINS THE REQUIRED INFORMATION TO EXECUTE *****
222 ***** THE APPROPRIATE RULE UNDER MDI. EACH RULE HAS ITS OWN *****
223 ***** UNIQUELY DEFINED AREA INDICATED BELOW. END OF TABLE IS *****
224 ***** INDICATED WITH A X'0000' FOR THE RULE EQUATE. *****
225 *****
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I7812 --- DISK WRITE TEST P/N=1635245 EC=755285 PAGE 05
LOCTR OBJECT TEXT STMT SOURCE STATEMENT COPYRIGHT IBM COPP 1976
0028F6 0500 995 N00046 $TUXX T7884,02,0000,EQ,PLNG=02,PARM=82,QT=(Q00006),YES=N00050,X
0028F8 292A 996+ N00046 DC A (@TUXX)
0028FA 307E 997+ DC AL2 (N00050)
0028FC 0000 998+ DC A (T7884)
0028FE 0002 1000+ DC AL2 (EQ)
002900 0000 1001+ DC AL2 (02)
1002+ DC X'0000'
ALIGN WORD
002902 0002 1003+ DC AL2 (02)
002904 F8F2 1004+ DC C'82'
1005+ ALIGN WORD
002906 196E 1006+ DC AL2 (PARMARA)
1007+ N00047 $TUXX T3C02,02,0002,ON,PLNG=02,PARM=82,QT=(Q00263),YES=N00049,X
002908 0500 1008+ N00047 DC A (@TUXX)
00290A 292E 1009+ DC AL2 (N00049)
00290C 300C 1010+ DC A (T3C02)
00290E 0200 1011+ DC AL2 (ON)
002910 0002 1012+ DC AL2 (02)
002912 0002 1013+ DC X'0002'
1014+ ALIGN WORD
002914 0002 1015+ DC AL2 (02)
002916 F8F2 1016+ DC C'82'
1017+ ALIGN WORD
002918 196E 1018+ DC AL2 (PARMARA)
1019+ N00048 $GOTO TYPE=INTRNL,EP=C,FT=(F00267),GTO=(N00098)
00291A 0200 1020+ N00048 DC A (@GOTO)
00291C 2D52 1021+ DC A (F00267)
00291E F3C3F0F0 1022+ DC CL4'3C00'
002922 C340 1023+ DC CL2'3C'
002924 0000 1024+ DC AL2 (INTRNL),GTO=((7895,A))
002926 0101 1025+ N00049 $FIXT FT=(F00007),GTO=((7895,A))
002928 2CC2 1026+ N00049 DC A (@FIXT)
1027+ DC A (F00007)
00292A 0500 1028+ N00050 $TUXX T7851,03,000000,EQ,PLNG=02,PARM=83,QT=(Q00006), X
00292C 298A 1029+ N00050 DC A (@TUXX)
00292E 32AC 1030+ DC AL2 (N00056)
002930 0000 1031+ DC A (T7851)
002932 0003 1032+ DC AL2 (EQ)
002934 0000000 1033+ DC AL2 (03)
002937 00 1034+ DC X'000000'
002938 0002 1035+ ALIGN WORD
00293A F8F3 1036+ DC AL2 (02)
1037+ DC C'83'
1038+ ALIGN WORD
00293C 196E 1039+ DC AL2 (PARMARA)
1040+ N00051 $TUXX T3C02,03,000080,ON,PLNG=02,PARM=83,QT=(Q00276), X
00293E 0500 1041+ N00051 DC A (@TUXX)
002940 297E 1042+ DC AL2 (N00055)
002942 300C 1043+ DC A (T3C02)
002944 0200 1044+ DC AL2 (ON)
002946 0003 1045+ DC AL2 (03)
002948 000080 1046+ DC X'000080'
00294B 00 1047+ ALIGN WORD
00294C 0002 1048+ DC AL2 (02)
00294E F8F3 1049+ DC C'83'
1050+ ALIGN WORD
002950 196E 1051+ DC AL2 (PARMARA)
1052+ N00052 $TUXX T3C02,03,001000,ON,PLNG=02,PARM=83,QT=(Q00281), X
002952 0500 1053+ N00052 DC A (@TUXX)
002954 2972 1054+ DC AL2 (N00054)
002956 300C 1055+ DC A (T3C02)
002958 0200 1056+ DC AL2 (ON)
00295A 0003 1057+ DC AL2 (03)
00295C 001000 1058+ DC X'001000'
00295F 00 1059+ ALIGN WORD
002960 0002 1060+ DC AL2 (02)
002962 F8F3 1061+ DC C'83'
1062+ ALIGN WORD
002964 196E 1063+ DC AL2 (PARMARA)
1064+ N00053 $GOTO TYPE=INTRNL,EP=B,FT=(F00286),GTO=(N00093)
002966 0200 1065+ N00053 DC A (@GOTO)
002968 2D58 1066+ DC A (F00286)
00296A F3C3F0F0 1067+ DC CL4'3C00'
00296E C240 1068+ DC CL2'3B'
002970 0000 1069+ DC AL2 (INTRNL)
1070+ N00054 $GOTO TYPE=XTRNL,MAP=7811,EP=B,FT=(F00288),GTO=((7811,B))
002972 0200 1071+ N00054 DC A (@GOTO)
002974 2D5E 1072+ DC A (F00288)
002976 F7F8F1F1 1073+ DC CL4'7811'
00297A C240 1074+ DC CL2'3B'
00297C 0001 1075+ DC AL2 (XTRNL)
1076+ N00055 $GOTO TYPE=XTRNL,MAP=7844,EP=A,FT=(F00291),GTO=((7844,A))
00297E 0200 1077+ N00055 DC A (@GOTO)
002980 2D64 1078+ DC A (F00291)
002982 F7F8F4F4 1079+ DC CL4'7844'
002986 C140 1080+ DC CL2'3A'
002988 0001 1081+ DC AL2 (XTRNL)
1082+ N00056 $TUXX T7884,02,0000,EQ,PLNG=02,PARM=83,QT=(Q00006),YES=N00060,X
00298A 0500 1083+ N00056 DC A (@TUXX)
00298C 29BE 1084+ DC AL2 (N00060)
00298E 307E 1085+ DC A (T7884)
002990 0000 1086+ DC AL2 (EQ)
002992 0002 1087+ DC AL2 (02)
002994 0000 1088+ DC X'0000'
ALIGN WORD
002996 0002 1089+ DC AL2 (02)
002998 F8F3 1090+ DC C'83'
1091+ ALIGN WORD
00299A 196E 1092+ DC AL2 (PARMARA)
1093+ N00057 $TUXX T3C02,02,0002,ON,PLNG=02,PARM=83,QT=(Q00298),YES=N00059,X
00299C 0500 1095+ N00057 DC A (@TUXX)
00299E 29BA 1096+ DC AL2 (N00059)
0029A0 300C 1097+ DC A (T3C02)
0029A2 0200 1098+ DC AL2 (ON)
0029A4 0002 1099+ DC AL2 (02)
0029A6 0002 1100+ DC X'0002'
1101+ ALIGN WORD
0029A8 0002 1102+ DC AL2 (02)
0029AA F8F3 1103+ DC C'83'
1104+ ALIGN WORD
0029AC 196E 1105+ DC AL2 (PARMARA)
1106+ N00058 $GOTO TYPE=INTRNL,EP=C,FT=(F00302),GTO=(N00098)
0029AE 0200 1107+ N00058 DC A (@GOTO)
0029B0 2D6A 1108+ DC A (F00302)

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I7812 --- DISK WRITE TEST P/N=1635245 EC=755285 PAGE 05A
LOCTR OBJECT TEXT STMT SOURCE STATEMENT COPYRIGHT IBM COPP 1976
0029B2 F3C3F0F0 1109+ DC CL4'3C00'
0029B6 C340 1110+ DC CL2'3C'
0029B8 0000 1111+ DC AL2 (INTRNL)
1112+ N00059 $FIXT FT=(F00007),GTO=((7895,A))
0029BA 0101 1113+ N00059 DC A (@FIXT)
0029BC 2CC2 1114+ DC A (F00007)
1115+ N00060 $TUXX T7851,03,000000,EQ,PLNG=02,PARM=84,QT=(Q00006), X
0029BE 0500 1116+ N00060 DC A (@TUXX)
0029C0 2A1E 1117+ DC AL2 (N00066)
0029C2 32AC 1118+ DC A (T7851)
0029C4 0000 1119+ DC AL2 (EQ)
0029C6 0003 1120+ DC AL2 (03)
0029C8 000000 1121+ DC X'000000'
0029CB 00 1122+ ALIGN WORD
0029CC 0002 1123+ DC AL2 (02)
0029CE F8F4 1124+ DC C'84'
1125+ ALIGN WORD
0029D0 196E 1126+ DC AL2 (PARMARA)
1127+ N00061 $TUXX T3C02,03,000080,ON,PLNG=02,PARM=84,QT=(Q00311), X
0029D2 0500 1128+ N00061 DC A (@TUXX)
0029D4 2A12 1129+ DC AL2 (N00065)
0029D6 300C 1130+ DC A (T3C02)
0029D8 0200 1131+ DC AL2 (ON)
0029DA 0003 1132+ DC AL2 (03)
0029DC 000080 1133+ DC X'000080'
0029DE 00 1134+ ALIGN WORD
0029E0 0002 1135+ DC AL2 (02)
0029E2 F8F4 1136+ DC C'84'
1137+ ALIGN WORD
0029E4 196E 1138+ DC AL2 (PARMARA)
1139+ N00062 $TUXX T3C02,03,001000,ON,PLNG=02,PARM=84,QT=(Q00316), X
0029E6 0500 1140+ N00062 DC A (@TUXX)
0029E8 2A06 1141+ DC AL2 (N00064)
0029EA 300C 1142+ DC A (T3C02)
0029EC 0200 1143+ DC AL2 (ON)
0029EE 0003 1144+ DC AL2 (03)
0029F0 001000 1145+ DC X'001000'
0029F2 00 1146+ ALIGN WORD
0029F4 0002 1147+ DC AL2 (02)
0029F6 F8F4 1148+ DC C'84'
1149+ ALIGN WORD
0029F8 196E 1150+ DC AL2 (PARMARA)
1151+ N00063 $GOTO TYPE=INTRNL,EP=B,FT=(F00321),GTO=(N00093)
0029FA 0200 1152+ N00063 DC A (@GOTO)
0029FC 2D70 1153+ DC A (F00321)
0029FE F3C3F0F0 1154+ DC CL4'3C00'
002A02 C240 1155+ DC CL2'3B'
002A04 0000 1156+ DC AL2 (INTRNL)
1157+ N00064 $GOTO TYPE=XTRNL,MAP=7811,EP=B,FT=(F00323),GTO=((7811,B))
002A06 0200 1158+ N00064 DC A (@GOTO)
002A08 2D76 1159+ DC A (F00323)
002A0A F7F8F1F1 1160+ DC CL4'7811'
002A0C C240 1161+ DC CL2'3B'
002A10 0001 1162+ DC AL2 (XTRNL)
1163+ N00065 $GOTO TYPE=XTRNL,MAP=7844,EP=A,FT=(F00326),GTO=((7844,A))
002A12 0200 1164+ N00065 DC A (@GOTO)
002A14 2D7C 1165+ DC A (F00326)
002A16 F7F8F4F4 1166+ DC CL4'7844'
002A18 C140 1167+ DC CL2'3A'
002A1C 0001 1168+ DC AL2 (XTRNL)
1169+ N00066 $TUXX T7884,02,0000,EQ,PLNG=02,PARM=84,QT=(Q00006),YES=N00070,X
002A1E 0500 1170+ N00066 DC A (@TUXX)
002A20 2A52 1171+ DC AL2 (N00070)
002A22 307E 1172+ DC A (T7884)
002A24 0000 1173+ DC AL2 (EQ)
002A26 0002 1174+ DC AL2 (02)
002A28 0000 1175+ DC X'0000'
ALIGN WORD
002A2A 0002 1176+ DC AL2 (02)
002A2C F8F4 1177+ DC C'84'
1178+ ALIGN WORD
002A2E 196E 1179+ DC AL2 (PARMARA)
1180+ N00067 $TUXX T3C02,02,0002,ON,PLNG=02,PARM=84,QT=(Q00333),YES=N00069,X
002A30 0500 1181+ N00067 DC A (@TUXX)
002A32 2A4E 1182+ N00067 DC AL2 (N00069)
002A34 300C 1183+ DC A (T3C02)
002A36 0200 1184+ DC AL2 (ON)
002A38 0002 1185+ DC AL2 (02)
002A3A 0002 1186+ DC X'0002'
ALIGN WORD
002A3C 0002 1187+ DC AL2 (02)
002A3E F8F4 1188+ DC C'84'
1189+ ALIGN WORD
002A40 196E 1190+ DC AL2 (PARMARA)
1191+ N00068 $GOTO TYPE=INTRNL,EP=C,FT=(F00337),GTO=(N00098)
002A42 0200 1192+ N00068 DC A (@GOTO)
002A44 2D82 1193+ DC A (F00337)
002A46 F3C3F0F0 1194+ DC CL4'3C00'
002A48 C340 1195+ DC CL2'3C'
002A4C 0000 1196+ DC AL2 (INTRNL)
1197+ N00069 $FIXT FT=(F00007),GTO=((7895,A))
002A4E 0101 1200+ N00069 DC A (@FIXT)
002A50 2CC2 1201+ DC A (F00007)
1202+ N00070 $TUXX T7851,03,000000,EQ,PLNG=02,PARM=85,QT=(Q00006), X
002A52 0500 1203+ N00070 DC A (@TUXX)
002A54 2AB2 1204+ DC AL2 (N00076)
002A56 32AC 1205+ DC A (T7851)
002A58 0000 1206+ DC AL2 (EQ)
002A5A 0003 1207+ DC AL2 (03)
002A5C 000000 1208+ DC X'000000'
002A5E 00 1209+ ALIGN WORD
002A5F 0002 1210+ DC AL2 (02)
002A62 F8F5 1211+ DC C'85'
1212+ ALIGN WORD
002A64 196E 1213+ DC AL2 (PARMARA)
1214+ N00071 $TUXX T3C02,03,000080,ON,PLNG=02,PARM=85,QT=(Q00346), X
002A66 0500 1215+ N00071 DC A (@TUXX)
002A68 2AA6 1216+ DC AL2 (N00075)
002A6A 300C 1217+ DC A (T3C02)
002A6C 0200 1218+ DC AL2 (ON)
002A6E 0003 1219+ DC AL2 (03)
002A70 000080 1220+ DC X'000080'
002A72 00 1221+ ALIGN WORD
002A74 0002 1222+ DC AL2 (02)

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LOCTR OBJECT TEXT STMT SOURCE STATEMENT COPYRIGHT IBM CORP 1976
002E68 0028 1679 DC A(0040)
002E69 C9C640F4F9F6F240C 1680 DC CL0043 'IF 4962 FAILS NOW , REPLACE THE DE UNIT.'

LOCTR OBJECT TEXT STMT SOURCE STATEMENT COPYRIGHT IBM CORP 1976
002FEC 0000 1796+CSTL1 DC A(*-*)
002FEE 0000 1797+CSTL2 DC A(*-*)
002FF0 0000 1798+CSTL3 DC A(*-*)


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LOCTR OBJECT TEXT      STMT SOURCE STATEMENT
00000B 1915 BS11 EQU 11
00000C 1916 BS12 EQU 12
00000D 1917 BS13 EQU 13
00000E 1918 BS14 EQU 14
00000F 1919 BS15 EQU 15
1921 COPY T7812 01DEC76
1922 T7812 TUIT $ERRS
1923+*****06FEB76**
1924+
1925+ TEST UNIT
1926+
1927+ FILE ATTACHMENT DEVICE ID'S 12/01/76
1928+
1929+ PURPOSE
1930+
1931+
1932+ CALLING SEQUENCE
1933+
1934+ THE TU WILL DETERMINE THE MODEL AND FEATURES THAT ARE INSTALLED
1935+ ON THE FILE BEING TESTED.
1936+
1937+ PROGRAM PASSES STATUS OF ALL LINES IN FOLLOWING FORMAT:
1938+ . TURESUL BIT 0-----9.3 M BYTE (VTL) WITH FIXED HEADS
1939+ . TURESUL BIT 1-----9.3 M BYTE (DUT) WITH FIXED HEADS
1940+ . TURESUL BIT 2-----9.3 M BYTE (VTL) WITH FIXED HEADS
1941+ . TURESUL BIT 3-----9.3 M BYTE (DUTCHESS)
1942+ . TURESUL BIT 4-----LARGE FILE
1943+ . TURESUL BIT 5-----NOT USED
1944+ . TURESUL BIT 6-----NOT USED
1945+ . TURESUL BIT 7-----NOT USED
1946+ . TURESUL BIT 8-----NOT USED
1947+ . TURESUL BIT 9-----NOT USED
1948+ . TURESUL BIT 10-----NOT USED
1949+ . TURESUL BIT 11-----NOT USED
1950+ . TURESUL BIT 12-----NOT USED
1951+ . TURESUL BIT 13-----NOT USED
1952+ . TURESUL BIT 14-----NOT USED
1953+ . TURESUL BIT 15-----NOT USED
1954+
1955+
1956+ RETURN CONTROL
1957+
1958+ B TURTN* RETURN TO MDI SUPERVISOR
1959+
1960+*****
1961+T7812 MVW R7,TURTN SAVE RETURN ADDRESS
1962+ MVWI X'7884',STUID SAVE TU ID FOR DISPLAY
1963+ MVA X'PTN1',R4 SET UP POINTER ADRS IN R4
1964+ BAL $CONC,R6 CLEAR DEV DEP STG AND CONNECT I/O BL
1965+ DC A($ERR$) ERROR ADRS FOR INVALID PREP
1966+
1967+ MVWZ TURESUL,R2 CLEAR RESULTS WORD
1968+ MVA TURESUL,R2 ADDRESS OF RESULTS
1969+ MVA IOBLK,R7 RESET DEVICE
1970+ SVC RESET *
1971+ MVA IOBLK,R7 READ DEVICE ID
1972+ SVC RID *
1973+ CWI T1'00B2',IOMOD+4 VTL WITH FIXED HEADS?
1974+ JZ YES
1975+ CWI X'00BA',IOMOD+4 DUTCHESS WITH FIXED HEADS?
1976+ JE T12B YES
1977+ CWI X'00A2',IOMOD+4 VTL,NO FIXED HEADS?
1978+ JE T12C YES
1979+ CWI X'00AA',IOMOD+4 DUTCHESS, NO FIXED HEADS?
1980+ JE T12D YES
1981+ CWI X'00CA',IOMOD+4 LARGE FILE?
1982+ JE T12F YES
1983+ B $ERRS INVALID ID, TU RESULTS NG
1984+ T12A TBTS (R2,0) VTL WITH FIXED HEADS
1985+ T12E TUIT *
1986+ T12E TUIT *
1987+*****
1988+ *
1989+ T12B TBTS (R2,1) DUTCHESS WITH FIXED HEADS
1990+ J T12E EXIT
1991+ T12C TBTS (R2,2) VTL NO FIXED HEADS
1992+ J T12E EXIT
1993+ T12D TBTS (R2,3) DUTCHESS NO FIXED HEADS
1994+ J T12E EXIT
1995+ T12F TBTS (R2,4) LARGE FILE
1996+ J T12E EXIT
1997+ *
1998+ *
1999+ COPY T7884 01DEC76
2000 T7884 TUIT $ERRS
2001+*****06FEB76**
2002+
2003+ TEST UNIT
2004+
2005+ TU84 WRITE AND READ ID TEST 12/01/76
2006+
2007+ PURPOSE
2008+
2009+ FUNCTION:
2010+
2011+ . PROGRAM INITIALIZES ATTACHMENT.
2012+ . RECALIBRATE
2013+ . SEEK TO CE TRACK
2014+ . SELECT HEAD FROM CE INPUT (0-1 OR 0-7 FIXED)
2015+ . WRITE ID ON SECTOR #0 OR NEXT GOOD SECTOR (55)
2016+ . READ AND COMPARE ID BYTES
2017+ . WRITE ID ON SECTOR #0 OR NEXT GOOD SECTOR (AA)
2018+ . READ AND COMPARE ID BYTES
2019+ . RESTORE CE TRACK WITH ORIGINAL ID BYTES
2020+
2021+
2022+ CALLING SEQUENCE
2023+
2024+ PROGRAM PASSES STATUS OF ALL LINES IN FOLLOWING FORMAT:
2025+ . TURESUL BIT 0----NOT USED
2026+ . TURESUL BIT 1----NOT USED
2027+ . TURESUL BIT 2----NOT USED
2028+ . TURESUL BIT 3----NOT USED
2029+
2030+

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LOCTR OBJECT TEXT      STMT SOURCE STATEMENT
2031+* . TURESUL BIT 5----NOT USED
2032+* . TURESUL BIT 6----FEAD ID
2033+* . TURESUL BIT 7----INTERRUPT
2034+*
2035+* . TURESUL BIT 8----RECAL
2036+* . TURESUL BIT 9----SEEK
2037+* . TURESUL BIT 10---ALL SECTORS ARE BAD(FLAG NOT 0 OR ERR'S)
2038+* . TURESUL BIT 11---NOT READY
2039+*
2040+* . TURESUL BIT 12---EXCEPTION END OTHER THAN (11,14 OR 15)
2041+* . TURESUL BIT 13---ID TEST PATTERN WRT/RD ERROR
2042+* . TURESUL BIT 14---UNSAFE
2043+* . TURESUL BIT 15---ECHO CHECK
2044+* . TURESUL BITS 16-32 CS STATUS
2045+*
2046+* EXITS NORMAL
2047+* . RETURNS TO MDI SUPERVISOR WHEN DONE.
2048+*
2049+* EXITS ERROR
2050+* . RETURNS TO MDI SUPERVISOR.
2051+*
2052+* RETURN CONTROL
2053+*
2054+* B TURTN* RETURN TO MDI SUPERVISOR
2055+*
2056+*****
2057+T7884 MVW R7,TURTN SAVE RETURN ADDRESS
2058+ MVWI X'7884',STUID SAVE TU ID FOR DISPLAY
2059+ MVA OPN1,R4 SET UP POINTER ADRS IN R4
2060+ BAL $CONC,R6 CLEAR DEV DEP STG AND CONNECT I/O BL
2061+ DC A($ERR$) ERROR ADRS FOR INVALID PREP
2062+*
2063+ MVW R7,R0 DETERMINE TYPE OF PROCESSOR
2064+ CBI 37,R0 *
2065+ JNE T84TC *
2066+ MVWI X'254C',T84T1+2 JUMP IF NOT 4955
2067+ J T84T2 LOAD TIME CONSTANT FOR 2 SEC
2068+ T84TC MVNI X'00CE',T84T1+2 (4953) LOAD TIME CONS FOR 2 SEC
2069+ T84T2 MVA IOBLK,R7 SETUP IOBLK
2070+ SVC RESET ISSUE IO RESET
2071+ T84T1 MVNI X'0000',R0 TIMEOUT 2 SEC
2072+ T784 SVC IDLE *
2073+ JCT T784,R0 *
2074+ MVWZ TURESUL,R2 CLEAR RESULTS WORD
2075+ MVNI TURESUL,R2 CLEAR RESULTS WORD
2076+ MVNI TURESUL,R2 ADDRESS OF RESULTS
2077+ BAL $RECL,R6 RECALIBRATE
2078+ DC A(T84FF) ERROR
2079+ TBTR (R4,ER) INTERRUPT ERROR?
2080+ BON T84AA YES
2081+ J T84Z
2082+ T84FF CWI X'0003',R3 CHECK FOR COMMAND REJECT
2083+ BNE $ERRS ERROR-TU NG
2084+ BAL XIOCS,R6 START CYCLE STEAL STATS
2085+ DC A($ERR$) ERROR
2086+ TBTR (R4,ER) INTERRUPT ERROR?
2087+ BON $ERRS YES
2088+ TBW X'0001',CSBUF+2 NOT READY?
2089+ BOFF T84AA NO-ERROR
2090+ TBTS (R2,14) SET NOT READY
2091+ B T84AA EXIT
2092+ T84Z MVNI 302,SKDCB+2 SEEK TO CE TRACK
2093+ MVNI 5,SKDCB SEEK CONTROL WORD
2094+ MVNI 0,SKDCB+8 SELECT HEAD ZERO
2095+ BAL $SEK,R6 SEEK TO CE TRACK
2096+ DC A($ERR$) ERROR
2097+ TBTR (R4,ER) TEST FOR ERROR
2098+ BON T84EE ERROR - TU RESULTS NG
2099+ MVNI X'20A',RSDCB READ SECTOR ID CONTROL WORD
2100+ MVNI 1,LGSEC UNIT LOG SECT LOC
2101+ T844 BAL CONVT,R6 CONVERT LOG SECT TO PHYS-1
2102+ MVW PHYSC+1,RSDCB+4 LOAD PHYSY SECT -1 IN RDSEC DCB
2103+ BAL $RDI,R6 READ SECTOR ID
2104+ DC A($ERR$) ERROR
2105+ TBTR (R4,ER) TEST FOR ERROR
2106+ JON T842
2107+ CB ZER00,SCTID+1 FLAG ZERO?
2108+ JNE T842 NO TRACK?
2109+ CWI 302,SCTID+2 CE TRACK?
2110+ JE T84J YES
2111+ T842 CWI 59,LGSEC END OF TRACK?
2112+ BE T84JJ YES-BAD TRACK
2113+ AWI 1,LGSEC INCREMENT LOG SECT NUM
2114+ J T844 LOOP
2115+ T843 MVNI 0,SKDCB+2 SETUP SEEK NO-OP (HEAD SELECT)
2116+ MVW TOPARM1,SKDCB+8 SELECT HEAD FROM MDI PARM
2117+ BAL $SEK,R6 SEEK
2118+ DC A($ERR$) ERROR
2119+ TBTR (R4,ER) CHECK CC
2120+ BON T84EE ERROR
2121+ T84K BAL CONVT,R6 CONVERT FROM LOG TO PHY
2122+ MVW PHYSC+1,RSDCB+4 LOAD DCB WITH PHY SEC #
2123+ MVW PHYSC+1,RSDCB+4 LOAD DCB WITH PHY SEC #
2124+ MVW PHYSC+1,RKDCB+4 LOAD DCB WITH PHY SEC #
2125+ MVW PHYSC+1,RKDCB+4 LOAD DCB WITH PHY SEC #
2126+ TBTS (R4,YE) POSSIBLE ERROR EXPECTED
2127+ BAL $RDI,R6 READ SECTOR ID
2128+ DC A($ERR$) *
2129+ TBTR (R4,ER) TEST FOR ERROR
2130+ JON T84A
2131+ CB ZER00,SCTID+1 CHECK FOR ZERO FLAG
2132+ T84A JNE T845 FLAG NOT ZERO
2133+ MVNI X'5555',WSIDT SETUP DATA '55' FOR WR ID
2134+ MVNI X'5555',WSIDT+2 *
2135+ MVNI X'5555',WSIDT+4 *
2136+ BAL T84WR,R6 GO TO WRITE SECTOR ID ROUTINE
2137+ MVNI X'AAAA',WSIDT WRITE ID DATA PATTERN 'AA'
2138+ MVNI X'AAAA',WSIDT+2 *
2139+ MVNI X'AAAA',WSIDT+4 *
2140+ BAL T84WR,R6 GO TO WRITE SECTOR ID ROUTINE
2141+ BAL LWSID,R6 RESTORE ORIGINAL SECTOR ID
2142+ BAL $WSEC,R6 * WRITE SECTOR ID
2143+ DC A($ERR$) ERROR-
2144+ TBTR (R4,CSA) CS STATS AVAILBLE?

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LOCTR OBJECT TEXT STMT SOURCE STATEMENT COPYRIGHT IBM CORP 1976
0031D4 1014 2145 JOFF T84F OK-NO ERROR
0031D6 8828 2FEE 35C8 2146 MVW T84F CS STATS
0031DC 4524 35C8 2147 MVW T84F ADDRESS OF CS STATS
0031E0 4D8F 2148 TBTR T84F NOT READY?
0031E2 1001 2149 JOFF T84CC NO
0031E4 4A4B 2150 TBTS (R2,11) NOT READY
0031E6 4D82 2151 T84CC TBTR (R5,2) ECHO CHECK?
0031E8 1001 2152 JOFF T84DD NO
0031EA 4A4F 2153 TBTS (R2,15) ECHO CHECK
0031EC 4D8B 2154 T84DD TBTR (R5,11) WRITE UNSAFE
0031EE 1001 2155 JOFF T84C NO
0031F0 4A4E 2156 TBTS (R2,14) WRITE UNSAFE
0031F2 4D87 2157 T84C TBTR (R5,7) RESET UNSAFE FILE
0031F4 402F 35C8 0000 2158 JWB T84C OTHER ERROR BITS ON?
0031FA 1001 2159 JWB T84F NO
0031FC 4A4C 2160 TBTS (R2,12) EXCEPTION END
0031FE 6E03 36D6 2161 T84F BAL \$RDIS,R6 READ SECTOR ID
003202 38DC 2162 DC A(\$ERR\$) ERROR-RETRY IO OP
003204 4CA1 2163 TBTR (R4,ER) CHECK CC
003206 6A00 38DC 2164 BON \$ERR\$ ERROR TO RESULTS NG
00320A 6E03 365E 2165 BAL CMPRN,R6 COMPARE SECTOR ID DATA
00320E 3228 2166 DC A(T84H) COMPARE ERROR
003210 8038 189A 34D2 2167 T84S MVB TUPARM1* SKDCB+8 SELECT HEAD FROM MDI PARM
003216 4020 34CC 0000 2168 MVWI O,SKDCB+2 SET UP SEEK NO-OP (HD SELECT)
00321C 6E03 36C6 2169 BAL \$SEER,R6 SEEK
003220 4020 2170 DC A(*+2) BYPASS ERRORS
003222 5000 2171 JWB T84J EXIT
003224 6802 392C 2172 T84J TXIT RETURN
2173+T84J B \$CONX RETURN TO MDI CONTROLLER
2174+*****
2175 *
2176 *
2177 *
2178 T84H TBTS (R2,13) COMPARE ERROR
2179 JWB T84J RETURN
2180 T84A AWI 1,LGSEC INCREMENT LOG SECT
2181 CWI 60,LGSEC CHECK FOR END OF TRACK
2182 JNE T84K NO
2183 T84JJ TBTS (R2,10) NO
2184 JWB T84J ALL SECTORS BAD,FLAG NOT 0 OR ERR'S
2185 * EXIT
2186 T84WR MVW R6,T84R+2 SET UP RETURN ADDRESS
2187 BAL \$WSTS,R6 WRITE SECTOR ID (TEST)
2188 DC A(\$ERR\$) ERROR-RETRY IO OP
2189 TBTR (R4,ER) INTERRUPT ERROR?
2190 JOFF T84KK NO
2191 TBTR (R4,CSA) CS STATS AVAILBLE?
2192 BOFF \$ERR\$ OK-NO ERROR
2193 MVW CSBUF+2,STATS CS STATS
2194 MVW T84S,STATS ADDRESS OF CS STATS
2195 TBTR (R5,5) NOT READY?
2196 JOFF T84HH NO
2197 TBTS (R2,11) NOT READY
2198 T84HH TBTR (R5,2) ECHO CHECK?
2199 JOFF T84GG NO
2200 TBTS (R2,15) ECHO CHECK
2201 T84GG TBTR (R5,11) WRITE UNSAFE
2202 JOFF T84L NO
2203 TBTS (R2,14) WRITE UNSAFE
2204 T84L TBTR (R5,7) RESET UNSAFE FILE
2205 JWB T84C OTHER ERROR BITS ON?
2206 JWB T84F NO
2207 TBTS (R2,12) EXCEPTION END
2208 T84B JWB T84J ERRORS-EXIT
2209 T84KK BAL \$RDIS,R6 READ SECTOR ID (TEST)
2210 DC A(\$ERR\$) ERROR-RETRY IO OP
2211 TBTR (R4,ER) CHECK CC
2212 BON T84T ERROR TO RESULTS NG
2213 BAL CMPRN,R6 COMPARE TEST ID DATA
2214 DC A(T84E) COMPARE ERROR
2215 T84R B *-* RETURN TO CALLER
2216 T84E TBTS (R2,13) COMPARE ERROR
2217 JWB T84J RETURN
2218 T84AA TBTS (R2,9) RECAL
2219 T84BB TBTS (R2,9) RECAL
2220 MVW CSBUF+2,TURESUL+2 INTERRUPT
2221 B
2222 T84EE TBTS (R2,9) SEEK
2223 JWB T84BB
2224 T84T TBTS (R2,6) READ ID
2225 JWB T84BB
2226 *
2227 T7851 COPY T7851 15SEP77
2228 TUIT \$ERR\$ 12/01/76
2229 *****06FEB76**
2230+
2231+ TEST UNIT
2232+
2233+ TUS1 READ ID TEST (FIXED HEADS)
2234+
2235+ PURPOSE
2236+
2237+ FUNCTION:
2238+
2239+ . PROGRAM INITIALIZES ATTACHMENT.
2240+
2241+ . RECALIBRATE
2242+
2243+ . READ ID'S ON FIXED HEAD TRACKS HEAD SPEC. BY 'PARM' IN MDI
2244+
2245+ . COMPARE ID'S READ WITH EXPECTED ID'S
2246+
2247+ . STORE ID COMPARE RESULTS FOR PASS 1
2248+
2249+ . REREAD ALL ID'S (PASS2)
2250+
2251+ . COMPARE ID'S READ WITH EXPECTED ID-COMPARE ERROR CTN RESULTS
2252+
2253+ . FROM PASS 1 FOR CONSISTENCY
2254+
2255+ . STORE THREE INFO BYTES FOR MDI
2256+
2257+ CALLING SEQUENCE
2258+
2259+ PROGRAM PASSES STATUS OF ALL LINES IN FOLLOWING FORMAT:
2260+
2261+ . TURESUL BIT 0----NOT USED
2262+
2263+ . TURESUL BIT 1----UNSAFE
2264+
2265+ . TURESUL BIT 2----NOT USED
2266+
2267+ . TURESUL BIT 3----NOT USED
2268+
2269+ . TURESUL BIT 4----NOT USED

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2260+ TURESUL BIT 5----NOT USED
2261+ TURESUL BIT 6----NO RECORD FOUND
2262+ TURESUL BIT 7----SYNC CHECK OR FILE DATA CHECK
2263+
2264+
2265+ TURESUL BIT 8----ATTACHMENT BUFFER PARITY CHECK
2266+ TURESUL BIT 9----NOT USED
2267+ TURESUL BIT 10----ERROR OTHER THAN SYNC OR FILE DATA CHECK
2268+ TURESUL BIT 11----FAILURES NOT CONSISTENT
2269+
2270+ TURESUL BIT 12---READ ERRORS (CHECKS DETECTED)
2271+ TURESUL BIT 13---SOLID READ CHECKS
2272+ TURESUL BIT 14---NOT USED
2273+ TURESUL BIT 15---NOT USED
2274+
2275+ TURESUL BIT 16---SOLID FAILURE (ID MISCOMPARE)
2276+ TURESUL BIT 17---NOT USED
2277+ TURESUL BIT 18---MISCOMPARES DETECTED
2278+ TURESUL BIT 19---INTERRUPT
2279+
2280+ TURESUL BIT 20---RECAL
2281+ TURESUL BIT 21---SEEK
2282+ TURESUL BIT 22---NOT USED
2283+ TURESUL BIT 23---NOT USED
2284+
2285+ TURESUL BITS 24-31 NOT USED
2286+ TURESUL BITS 32-47 CS STATS FOR FAILING OP
2287+
2288+ EXITS NORMAL
2289+ RETURNS TO MDI SUPERVISOR WHEN DONE.
2290+
2291+ EXITS ERROR
2292+ RETURNS TO MDI SUPERVISOR.
2293+ RETURN CONTROL
2294+
2295+ B TURTN* RETURN TO MDI SUPERVISOR
2296+
2297+*****
2298+T7851 MVW R7,TURTN SAVE RETURN ADDRESS
2299+ MVWI X'47851 STUID SAVE TO ID FOR DISPLAY
2300+ MVA DET,R4 SET UP POINTER ADRS IN R4
2301+ BAL \$CONX,R6 CLEAR DEV DEF STG AND CONNECT I/O BL
2302+ DC A(\$ERR\$) ERROR ADRS FOR INVALID PREP
2303+
2304 MVW CPUID,R0 DETERMINE TYPE OF PROCESSOR
2305 CBI 37,R0 *
2306 JNE T51TC JUMP IF NOT 4955
2307 MVWI X'254C',T51T1+2 LOAD TIME CONSTANT FOR 2 SEC
2308 JWB T51T2
2309 T51TC MVWI X'0C0E',T51T1+2 (4953) LOAD TIME CONS FOR 2 SEC
2310 T51T2 MVWZ TURESUL,R2 CLEAR RESULTS WORD
2311 MVWZ TURESUL+2,R2 CLEAR RESULTS WORD
2312 MVWZ TURESUL+4,R2 CLEAR RESULTS WORD
2313 NVA TURESUL,R2 ADDRESS OF RESULTS
2314 NVA IOBLK,R7 READ DEVICE ID
2315 SVC RID TEST FOR FIXED HEADS
2316 TWI X'0008',IOMOD+4 *
2317 JON T51YY FIXED HEADS INSTALLED
2318 B T51T NO FIXED HEADS INSTALLED -EXIT
2319 T51YY MVWI 0,PASS1 INIT PASS COUNTER
2320 MVWI 0,HDOSV INIT HEAD 0 SAVE COMP ERR CTR
2321 MVWI 0,EROSV INIT HEAD 0 SAVE ERR COUNTER
2322 T51U MVWI 0,HEAD0 INIT HEAD ZERO MISCOMPARE COUNTER
2323 MVWI 0,GDSE0 INIT GOOD SECTOR EQUAL 60
2324 MVWI 0,ERR00 INIT HEAD 0 ERROR COUNTER
2325 NVA IOBLK,R7 SETUP IOBLK
2326 SVC RESET ISSUE TO RESET
2327 T51T1 MVWI X'0000',R0 TIME OUT 2 SEC
2328 T751 SVC IDLE *
2329 JCT T751,R0 *
2330 BAL \$RECL,R6 RECALIBRATE
2331 DC A(\$ERR\$) ERROR
2332 TBTR (R4,ER) INTERRUPT ERROR?
2333 T51AA YES
2334 MVWI 5,SKDCB SEEK CONTROL WORD
2335 MVW TUPARM1* SKDCB+8 SELECT HEAD FROM MDI PARM
2336 MVWI 30,SKDCB+2 SELECT TO CE TRACK
2337 BAL \$SEER,R6 SEEK
2338 DC A(\$ERR\$) *
2339 TBTR (R4,ER) INTERRUPT ERROR?
2340 BON T51BB YES
2341 MVWI X'200A',RSDCB RD SECT ID CONTROL WORD
2342 T51G MVWI 0,LGSEC SET UP LOG SECT# TO ZERO
2343 T51E BAL CONVT,R6 CONVERT SECT # FROM LOGICAL TO PHYS
2344 MVW PHYSCL+1,RSDCB+4 LOAD DCB
2345 BAL RDID1,R6 READ ID SUBROUTINE
2346 CB ZER0,SCDID+1 FLAG ZERO?
2347 T51A ENE T51A FLAG NOT ZERO
2348 CB LGSEC+1,SCDID+5 COMPARE SECT # TO EXPECTED #
2349 JNE T51J NO - MISCOMPARE
2350 CB SKDCB+8,SCDID+4 HEAD# COMPARE
2351 JNE T51J
2352 JWB T51B
2353 T51J AWI 1,HEAD0 INC HEAD 0 COUNTER
2354 T51B CWI 59,LGSEC 60 SECTORS READ?
2355 JE T51H YES
2356 AWI 1,LGSEC INC SECT #
2357 JWB T51E
2358 T51H CWI 1,PASS1 PASS - TWO?
2359 JE T51E YES
2360 CWI 0,ER00 HEAD 0 READ ERROR CTR 0?
2361 JE T51L
2362 TBTS (R2,12) SET ERRORS ON RD ID HEAD 0
2363 CW GDSE0,ER00 HEAD 0 RD ERRORS = GOOD SECT CTR?
2364 JNE T51L NO
2365 TBTS (R2,13) SOLID FAILURE HEAD 0
2366 T51L CWI 0,HEAD0 HEAD 0 MISCOMPARE CTR = 0
2367 JE T51M
2368 TBTS (R2,18) MISCOMPARES ON HEAD 0
2369 CW GDSE0,HEAD0 MISCOMPARES ON HD 0 = GOOD SECT CTR
2370 JNE T51M YES
2371 TBTS (R2,16) SOLID FAILURES ON HEAD 0
2372 T51M MVW HEAD0,HDOSV SAVE MISCOMPARE
2373 MVW ER00,EROSV SAVE RD ERRORS

LOCTR	OBJECT TEXT	STMT	SOURCE STATEMENT	COPYRIGHT IBM CORP 1976
0033DC	402F 35B0 0000	2374	T51R CWI 0 HEAD0	MISCOMPARE CTR FOR HDO = 0
0033E2	1804	2375	JNE T51S	NO
0033E4	802B 353A 18C9	2376	CB ZER00,TURESUL+1	HDI BYTE 2 = 0
0033EA	1049	2377	JE T51T	EXIT
0033F0	4029 35AE 0001	2378	T51S AWI 1 PASS1	INC PASS CTR
0033F2	6802 330A	2379	B T51U	GO EXECUTE PASS 2
0033F6	882B 35C0 35B8	2380	*	
0033FC	1001	2381	*	
0033FE	4A4B	2382	T51I CW EPOSV,ERO0	HD 0 CTR PASS1 = HDO CTR PASS2 ?
003400	882B 35BC 35B0	2383	JE T51W	YES
003406	1001	2384	TBTS (R2,11)	FAILURES NOT CONSISTENT
003408	4A4B	2385	T51W CW HD0SV,HEAD0	HDO CTR PASS1 = HDO CTR PASS2 ?
00340A	6802 3476	2386	JE T51Y	YES
00340E	680D 3454	2387	TBTS (R2,11)	FAILURES NOT CONSISTENT
003412	6E03 36D6	2388	B T51T	EXIT
003416	38DC	2389	*	
003418	4CA1	2390	RDID1 HWV R6,T510+2	SETUP RETURN ADDRESS
00341A	101B	2391	BAL \$RDID R6	READ ID
00341C	4CA9	2392	DC A(\$ERR\$)	ERROR
00341E	6800 38DC 35C8	2393	TBTR (R4,ER)	
003422	8828 2FEE 35C8	2394	JOFF T510	
003428	4524 35C8	2395	TBTR (R4,CSA)	CYCLE STEAL STATS ?
00342C	4B83	2396	BOFF \$ERR\$	RETURN
00342E	1210	2397	MVW CSBUF+2,STATS	GET CS STATS
003430	4B87	2398	MVA STATS,R5	
003432	1211	2399	TBTR (R5,3)	NO RECORD FOUND
003434	4B81	2400	JON T511	YES
003436	1207	2401	TBTR (R5,7)	UNSAFE
003438	4D88	2402	JON T512	YES
00343A	1205	2403	TBTR (R5,1)	SYNC CHECK
00343C	4D8E	2404	JON T513	YES
00343E	1001	2405	TBTR (R5,8)	FILE DATA OK ?
003440	4A48	2406	JON T513	YES
003442	4A4A	2407	TBTR (R5,14)	BUFFER PARITY OK
003444	5001	2408	JOFF T514	NO
003446	4A47	2409	TBTS (R2,8)	ATTACH BUFFER PARITY
003448	4029 35B8 0001	2410	T514 TBTS (R2,10)	ERR0P OTHER THAN SYNC ON FILE D CK
00344E	5001	2411	J T516	
003452	6802 0000	2412	T513 TBTS (R2,7)	SYNC OF FILE DATA CHECK
003456	4A41	2413	T516 AWI 1 ER00	INC HDO READ EFFOR CTP
003458	6802 3476	2414	J T510	
00345C	402E 35B4 0001	2415	T511 TBTS (R2,6)	NO RECORD FOUND
003462	6802 3390	2416	T510 B *-*	PETUPN TO CALLER
003466	4C54	2417	*	
003468	4C53	2418	*	
00346A	8828 2FEE 18CC	2419	T512 TBTS (R2,1)	UNSAFE
00346E	5002	2420	B T51T	EXIT
003472	5005	2421	T51A SWI 1,GDSE0	DEC GOOD SECT CTR (HEAD0)
003474	50F9	2422	B T51B	
003476	6802 392C	2423	T51AA TBTS (R4,20)	RFCAL
00347A	2008	2424	T51CC TBTS (R4,19)	INTEFRUPT
00347C	0000	2425	MVW CSBUF+2,TURESUL+4	
00347E	0000	2426	J T51T	EXIT
003480	0000	2427	T51BB TBTS (R4,21)	SEEK
003482	0000	2428	J T51CC	
003484	0000	2429	T51T TXIT	EXIT
003486	0000	2430	T51T B \$CONX	RETURN TO MDI CONTFOLLEP
003488	0000	2431	*****	*****
00348A	0007	2432	*	
00348C	0000000000000000	2433	COPY T78DCB	01DEC76
00349A	0002	2434	** (T78DCB)	
00349C	0000	2435	*****12/1/76*****	
00349E	0000	2436	*****	
0034A2	0000	2437	DCB TABLES AND DC'S	
0034A4	0000	2438	*	
0034A6	0006	2439	*	
0034A8	3560	2440	*****	
0034AA	200A	2441	*	
0034AC	0000	2442	***** DIAGNOSTIC DCB *****	
0034AE	0000	2443	*	
0034B0	0000	2444	DGDCB DC X'2008'	DIAGNOSTIC DCB
0034B2	0000	2445	DC X'0000'	NOT USED
0034B4	0000	2446	DC A(*-*)	0-7 = PHYSICAL SECTOR # MINUS ONE
0034B6	0006	2447	DC X'0000'	NOT USED
0034B8	2FD4	2448	DC X'0000'	NOT USED
0034BA	200E	2449	DC A(*-*)	CHAINING ADDRESS
0034BC	0000	2450	DC X'0100'	BYTE COUNT
0034BE	0000	2451	DC A(*-*)	DATA ADDRESS
0034C0	0000	2452	*	
0034C2	0000	2453	*	
0034C4	0000	2454	***** RECALIBRATE DCB *****	
0034C6	0006	2455	*	
0034C8	2FD4	2456	CLDCB DC X'0007'	RECALIBRATE DCB
0034CA	0005	2457	DC 7A(*-*)	
0034CC	0000	2458	*	
0034CE	0000	2459	***** WRITE SECTOR ID **	
0034D0	0000	2460	*	
0034D2	0000	2461	WSDCB DC X'0002'	WRITE SECTOR ID CONTROL WORD
0034D4	0000	2462	DC X'0000'	NOT USED
0034D6	0000	2463	DC A(*-*)	0-7 = PHYSICAL SECTOR # MINUS ONE
0034D8	0000	2464	DC A(*-*)	NOT USED
0034DA	0000	2465	DC A(*-*)	NOT USED
0034DC	0000	2466	DC A(*-*)	NOT USED
0034DE	0000	2467	DC X'0006'	CHAIN ADDRESS
0034E0	0000	2468	DC A(WRSID)	BYTE COUNT
0034E2	0000	2469	***** READ SECTOR ID DCB *****	ADDR OF SECTOR ID DATA
0034E4	0000	2470	*	
0034E6	0000	2471	RSDCB DC X'200A'	READ SECTOR ID
0034E8	0000	2472	DC X'0000'	NOT USED
0034EA	0000	2473	DC X'0000'	0-7 = PHYSICAL SECTOR # MINUS ONE
0034EC	0000	2474	DC X'0000'	NOT USED
0034EE	0000	2475	DC X'0000'	NOT USED
0034F0	0000	2476	DC X'0000'	CHAIN ADDRESS
0034F2	0000	2477	DC X'0006'	BYTE COUNT FOR READ SECTOR ID
0034F4	0000	2478	DC A(SCTID)	SECTOR ID DATA ADDRESS
0034F6	0000	2479	*	
0034F8	0000	2480	*	
0034FA	0000	2481	***** READ SECTOR ID IMMEDIATE DCB *****	
0034FC	0000	2482	*	
0034FE	0000	2483	RIDCB DC X'200E'	READ SECTOR ID
003500	0000	2484	DC X'0000'	NOT USED
003502	0000	2485	DC X'0000'	NOT USED
003504	0000	2486	DC X'0000'	NOT USED
003506	0000	2487	DC X'0000'	NOT USED
003508	0000	2488	DC A(*-*)	CHAIN ADDRESS

LOCTR	OBJECT TEXT	STMT	SOURCE STATEMENT	COPYRIGHT IBM CORP 1976
0034C6	0006	2489	DC X'0006'	BYTE COUNT FOR READ SECTOR ID
0034C8	2FD4	2490	DC A(SCTID)	SECTOR ID DATA ADDRESS
0034CA	0005	2491	*	
0034CC	0000	2492	*	
0034CE	0000	2493	***** SEEK DCB *****	
0034D0	0000	2494	*	
0034D2	0000	2495	SKDCB DC X'0005'	SEEK DCB
0034D4	0000	2496	DC X'0000'	BIT 0-3=0;BIT4=DIRECTION;5-15=DIFFER
0034D6	0000	2497	DC F'0'	
0034D8	0000	2498	DC F'0'	
0034DA	0000	2499	DC X'0000'	0-7 = HEAD;8-15 NOT USED
0034DC	0000	2500	DC A(*-*)	CHAIN ADDRESS
0034DE	0000	2501	DC F'0'	NOT USED
0034E0	0000	2502	DC F'0'	NOT USED
0034E2	0000	2503	*	
0034E4	0000	2504	***** CYCLE STEAL STATUS DCB *****	
0034E6	0008	2505	*	
0034E8	2FEC	2506	CSDCB DC X'2000'	CONTROL WORD
0034EA	0001	2507	DC F'0'	NOT USED
0034EC	0000	2508	DC F'0'	NOT USED
0034EE	0000	2509	DC F'0'	NOT USED
0034F0	0000	2510	DC F'0'	NOT USED
0034F2	0000	2511	DC F'0'	NOT USED
0034F4	0000	2512	DC X'0008'	4 WORDS OF STATS
0034F6	0000	2513	DC A(CSEUF)	ADDRESS OF CYCLE STEAL STATUS DATA
0034F8	0000	2514	*	
0034FA	200C	2515	***** WRITE DCB *****	
0034FC	0000	2516	*	
0034FE	0000	2517	WRDCB DC X'0001'	WRITE CONTROL WORD
003500	0000	2518	DC F'0'	NOT USED
003502	0000	2519	DC X'0000'	0-7=0;8-15 = FLAG BYTE
003504	0000	2520	DC X'0000'	SEARCH ARGUMENT CYLINDER
003506	0000	2521	DC X'0000'	SEARCH ARGUMENT HEAD-SECTOR
003508	0000	2522	DC A(*-*)	CHAIN ADDRESS
00350A	2009	2523	DC F'0'	BYTE COUNT
00350C	0000	2524	DC A(*-*)	WRITE DATA ADDRESS
00350E	0000	2525	*	
003510	0000	2526	***** VERIFY DCB *****	
003512	0101	2527	*	
003514	0000	2528	VRDCB DC X'200C'	CONTROL WORD
003516	0000	2529	DC F'0'	NOT USED
003518	0000	2530	DC X'0000'	0-7=0;8-15 = FLAG BYTE
003520	0000	2531	DC X'0000'	CYLINDER
003522	0000	2532	DC X'0000'	HEAD - SECTOR
003524	0000	2533	DC A(*-*)	CHAIN ADDRESS
003526	0006	2534	DC F'0'	BYTE COUNT
003528	3560	2535	DC A(*-*)	VERIFY DATA ADDRESS
003530	0000	2536	*	
003532	0000	2537	***** READ DCB *****	
003534	0000	2538	*	
003536	0000	2539	RDDCB DC X'2009'	READ DCB CONTROL WORD
003538	0000	2540	DC F'0'	NOT USED
003540	0000	2541	DC X'0000'	0-7=0;8-15 = FLAG BYTE
003542	0000	2542	DC X'0000'	SEARCH ARGUMENT CYLINDER
003544	0101	2543	DC X'0101'	SEARCH ARGUMENT H-R
003546	0000	2544	DC A(*-*)	CHAIN ADDRESS
003548	0000	2545	DC F'0'	BYTE COUNT
003550	0000	2546	DC A(*-*)	READ DATA ADDRESS
003552	0000	2547	*	
003554	0000	2548	***** WRITE SECTOR ID SKEWED *****	
003556	0006	2549	*	
003558	0000	2550	WKDCB DC X'0003'	CONTROL WORD
003560	0000	2551	DC X'0000'	NOT USED
003562	0000	2552	DC A(*-*)	0-7 = PHYSICAL SECTOR # MINUS ONE
003564	0000	2553	DC A(*-*)	NOT USED
003566	0000	2554	DC A(*-*)	NOT USED
003568	0000	2555	DC A(*-*)	CHAIN ADDRESS
003570	0000	2556	DC X'0006'	BYTE COUNT
003572	0000	2557	DC A(WRSID)	ADDR OF SECTOR ID DATA
003574	0000	2558	*	
003576	0000	2559	***** READ SECTOR ID SKEWED *****	
003578	0000	2560	*	
003580	200E	2561	RKDCB DC X'200E'	CONTROL WORD
003582	0000	2562	DC X'0000'	NOT USED
003584	0000	2563	DC X'0000'	0-7 = PHYSICAL SECTOR # MINUS ONE
003586	0000	2564	DC X'0000'	NOT USED
003588	0000	2565	DC X'0000'	NOT USED
003590	0000	2566	DC A(*-*)	CHAIN ADDRESS
003592	0000	2567	DC X'0006'	BYTE COUNT FOR READ SECTOR ID
003594	2FD4	2568	DC A(SCTID)	SECTOR ID DATA ADDRESS
003596	0000	2569	*	
003598	0000	2570	***** CONSTANTS AND DEFINED STORAGE LOCATIONS *****	
003600	0001	2571	ZER00 DC X'0000'	CONSTANT ZERO
003602	00000000	2572	ONE1 DC X'0001'	CONSTANT ONE
003604	0000	2573	TIMEOUT DC 2A(*-*)	TIMEOUT COUNTER
003606	000			

LOCTR	OBJECT TEXT	STMT	SOURCE STATEMENT	COPYRIGHT IBM CORP 1976
00357C	0000	2603	CTF05 DC X'0000'	COUNTER
00357E	0000	2604	CTF06 DC X'0000'	COUNTER
003580	0000	2605	SAVR3 DC X'0000'	SAVE AREA
003582	0000	2606	SAVR5 DC X'0000'	SAVE AREA
003584	0000	2607	WR2 DC X'0000'	
003586	0000	2608	SVSEK DC X'0000'	
003588	0000	2609	LCT DC X'0000'	
00358A	0000	2610	T56AA DC X'0000'	
00358C	0000	2611	T56BB DC X'0000'	
00358E	0000	2612	T56CC DC X'0000'	
003590	0000	2613	T56DD DC X'0000'	
003592	0000	2614	T56EE DC X'0000'	
003594	0000	2615	T56FF DC X'0000'	
003596	0000	2616	T56GG DC X'0000'	
003598	0000	2617	T86AA DC X'0000'	
00359A	0000	2618	T86BB DC X'0000'	
00359C	0000	2619	T86CC DC X'0000'	
00359E	0000	2620	T86DD DC X'0000'	
0035A0	0000	2621	T86EE DC X'0000'	
0035A2	0000	2622	T86FF DC X'0000'	
0035A4	0000	2623	T86GG DC X'0000'	
0035A6	0000	2624	T41D DC X'0000'	
0035A8	0000	2625	T41P DC X'0000'	
0035AA	0000	2626	WBICL DC X'0000'	
0035AC	0000	2627	CYLDC DC X'0000'	
0035AE	0000	2628	PASS1 DC A(*-*)	
0035B0	0000	2629	HEAD0 DC A(*-*)	
0035B2	0000	2630	HEAD1 DC A(*-*)	
0035B4	0000	2631	GDSE0 DC A(*-*)	
0035B6	0000	2632	GDSE1 DC A(*-*)	
0035B8	0000	2633	ER00 DC A(*-*)	
0035BA	0000	2634	ER01 DC A(*-*)	
0035BC	0000	2635	HD0SV DC A(*-*)	
0035BE	0000	2636	HD1SV DC A(*-*)	
0035C0	0000	2637	ER0SV DC A(*-*)	
0035C2	0000	2638	ER1SV DC A(*-*)	
0035C4	0000	2639	PATTP DC A(*-*)	
0035C6	0000	2640	CECYL DC A(*-*)	
0035C8	0000	2641	STATS DC A(*-*)	
		2642	*	
		2644	COPY T78DPCIO 01DEC76	
		2645	** (T78DPCIO)	
		2646	EXECUTE DPC INPUT/OUTPUT COMMANDS	2/07/77
		2647	THIS ROUTINE HAS THE FOLLOWING ENTRIES:	
		2648	*	
		2650	* 1 BAL CEOP1,R6 CE DIAGNOSTIC OP1(TUPN ON DIAG MODE)	
		2651	*	
		2652	* 2 BAL CEOP2,P6 WRITE DIAG CLOCK STEP DATA	
		2653	*	
		2654	* 3 BAL SENS0,P6 CE PEAD SENSE WORD ZERO	
		2655	*	
		2656	* 4 BAL SENS1,R6 CE PEAD SENSE WORD ONE	
		2657	*	
		2658	* 5 BAL WRAP,R6 PEAD DIAGNOSTIC WRAP	
		2659	*	
		2660	* BXS (P6,2) RETURN	
		2662	*****	
		2664	CE DIAGNOSTIC OP2 DATA WORD (CLOCK STEP)	
		2665	*	
		2666	BIT 00 - SET READY	
		2667	BIT 01 - PESET READY	
		2668	BIT 02 - SET WRITE CLOCK	
		2669	BIT 03 - SET READ CLOCK	
		2670	BIT 04 - INDEX PULSE	
		2671	BIT 05 - SECTOR PULSE	
		2672	BIT 06 - STANDARD READ DATA	
		2673	BIT 07 - BEHIND PULSE	
		2674	BIT 08 - BEHIND HOME	
		2675	BIT 09 - SET SEEK COMPLETE	
		2676	BIT 10 - RESET SEEK COMPLETE	
		2677	BIT 11 - PLO OUT OF SYNC	
		2678	BIT 12 - PST RD/WRT CLOCK	
		2679	BIT 13 -	
		2680	BIT 14 -	
		2681	BIT 15 - PESET DIAGNOSTIC MODE	
		2682	*****	
		2684	*	
0035CA	6E0D 2FD2 364D	2686	WRAP MVW R6,LSTIO SAVE ADDRESS OF LAST IO	
0035CE	8028 19D0 364D	2687	MVB DEVADD,IDCBRAP+1 LOAD DEVICE ADDRESS IN IDCB	
0035D4	680C 364C	2688	IO IDCBAF READ SENSE WORD 1	
0035D8	6F05 362E	2689	BNCC 7,CCERR CHECK COND CODE	
0035DC	5601	2690	BXS (R6,2) RETURN TO CALLER	
		2691	*	
0035DE	6E0D 2FD2 3645	2692	CEOP1 MVW R6,LSTIO SAVE ADDRESS OF LAST IO	
0035E2	8028 19D0 3645	2693	MVB DEVADD,IDCBCE1+1 LOAD DEVICE ADDRESS IN IDCB	
0035E8	680C 3644	2694	IO IDCBCF1 SET DIAGNOSTIC MODE	
0035EC	6F05 362E	2695	BNCC 7,CCERR CHECK COND CODE	
0035F0	5601	2696	BXS (R6,2) RETURN TO CALLER	
		2697	*	
0035F2	6E0D 2FD2 3649	2698	CEOP2 MVW R6,LSTIO SAVE ADDRESS OF LAST IO	
0035F6	8028 19D0 3649	2699	MVB DEVADD,IDCBCE2+1 LOAD DEVICE ADDRESS IN IDCB	
0035FC	680C 3648	2700	IO IDCBCF2 WRITE DIAG CLOCK STEP	
003600	6F05 362E	2701	BNCC 7,CCERP CHECK COND CODE	
003604	5601	2702	BXS (R6,2) RETURN TO CALLER	
		2703	*	
003606	6E0D 2FD2 3641	2705	SENS1 MVW R6,LSTIO SAVE ADDRESS OF LAST IO	
00360A	8028 19D0 3641	2706	MVB DEVADD,IDCB1+1 LOAD DEVICE ADDRESS IN IDCB	
003610	680C 3640	2707	IO IDCBAF READ SENSE WORD 2	
003614	6F05 362E	2708	BNCC 7,CCERP CHECK COND CODE	
003618	5601	2709	BXS (R6,2) RETURN TO CALLER	
		2710	*	
00361A	6E0D 2FD2 363D	2711	SENS0 MVW R6,LSTIO SAVE ADDRESS OF LAST IO	
00361E	8028 19D0 363D	2712	MVB DEVADD,IDCB0+1 LOAD DEVICE ADDRESS IN IDCB	
003624	680C 363C	2713	IO IDCBAF READ SENSE WORD 1	
003628	6F05 362E	2714	BNCC 7,CCERP CHECK COND CODE	
00362C	5601	2715	BXS (R6,2) RETURN TO CALLER	
		2716	*	
00362E	706E	2717	CCERP DC X'706E' COPY STATUS ANY LEVEL INTO R3	

LOCTR	OBJECT TEXT	STMT	SOURCE STATEMENT	COPYRIGHT IBM CORP 1976
003630	336A	2718	SPL 13,P3 POSITION CC CODE TO BITS 13-15	
003632	C328 2FCE	2719	MVR R3,\$IOIN * PUT IN LOG AREA	
003636	68D2 0000	2720	B (R6)* RETURN TO USER	
		2721	*	
00363A	6F05	2722	IORST DC X'6F05'	RESET IO
00363C	2205	2723	IDCB0 DC X'2205'	SENSE WORD ZERO
00363E	0000	2724	RDATA0 DC A(*-*)	DATA WORD
003640	2105	2725	IDCB1 DC X'2105'	SENSE WORD ONE
003642	0000	2726	RDATA DC A(*-*)	
003644	4005	2727	IDCBCE1 DC X'4005'	CE DIAG OP1
003646	0000	2728	CEBAT DC A(*-*)	SENSE DATA
003648	4105	2729	IDCBCE2 DC X'4105'	CE DIAG OP2
00364A	0000	2730	CEBAT2 DC A(*-*)	SENSE DATA
00364C	2F05	2731	IDCBRAP DC X'2F05'	READ DIAG WRAP
00364E	0000	2732	RAPDAT DC A(*-*)	SENSE DATA
000232		2733	CPUID EQU X'0232'	CPU ID
		2734	*	
		2736	COPY T78IO 01DEC76	
		2737	** (T78IO)	
		2738	*****12/01/76*****	
		2739	*	
		2740	SUBROUTINE	
		2741	*	
		2742	PURPOSE	
		2743	*	
		2744	COMPARE READ SECTOR ID DATA TO WRITE SECTOR ID DATA	
		2745	NORMAL AND TEST DATA.	
		2746	*	
		2747	CALLING SEQUENCE	
		2748	*	
		2749	BAL CMPPW,R6 (NORMAL)	
		2750	BAL CMPPT,R6 (TEST)	
		2751	*	
		2752	RETURN	
		2753	*	
		2754	BXS (R6,2) - NORMAL	
		2755	*	
		2756	*	
		2757	*****	
		2758	*	
003650	4724 0005	2759	CMPT MVWI 5,R7 BYTE COUNT	
003654	4324 356F	2760	MVA SCTST+1,R3 ADDR OF RD SECT ID DATA (TEST)	
003658	4524 3568	2761	MVA WSIDT,R5 ADDR OF WR SECT ID DATA (TEST)	
00365C	5006	2762	J TT4Y	
00365E	4724 0005	2763	CMPT MVWI 5,R7 COMPARE BYTE COUNT	
003662	4324 2FD5	2764	MVA SCTID+1,R3 ADDR OF RD SEC ID DATA	
003666	4524 3560	2765	MVA WRSID,R5 ADDR OF WR SEC ID DATA	
00366A	2B86	2766	CFMEN (R3),(R5) COMPARE ID DATA	
00366C	68C0 0002	2767	BE (R6,2) BCH IF WRITE ID DATA OK	
003670	68D2 0000	2768	B (R6)* COMPARE ERROR	
		2769	*	
		2770	*****	
		2771	*	
		2772	SUBROUTINE	
		2773	*	
		2774	PURPOSE	
		2775	CONVERT LOGICAL SECTOR NUMBER TO A PHYSICAL SECTOR MINUS	
		2776	ONE.	
		2777	SETUP LOGICAL SECTOR # IN LOCATION 'LGSEC'	
		2778	PHYSICAL SECTOR # WILL BE LOADED IN LOCATION 'PHYS'	
		2779	*	
		2780	LOGICAL SECTOR# TO PHYSICAL SECTOR# CONVERSION	
		2781	* LOGICAL- X 00, 1E, 01, 1F, 02, 20, 03, 21, 04, 22, 05, 23, 06, 24,	
		2782	* PHYSICAL X 00, 01, 02, 03, 04, 05, 06, 07, 08, 09, 0A, 0B, 0C, 0D,	
		2783	*	
		2784	* LOGICAL- 07, 25, 08, 26, 09, 27, 0A, 28, 0B, 29, 0C, 2A, 0D, 2B,	
		2785	* PHYSICAL 0E, 0F, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 1A, 1B,	
		2786	*	
		2787	* LOGICAL- 0E, 2C, 0F, 2D, 10, 2E, 11, 2F, 12, 30, 13, 31, 14, 32,	
		2788	* PHYSICAL 1C, 1D, 1E, 1F, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29,	
		2789	*	
		2790	* LOGICAL- 15, 33, 16, 34, 17, 35, 18, 36, 19, 37, 1A, 38, 1B, 39,	
		2791	* PHYSICAL 2A, 2B, 2C, 2D, 2E, 2F, 30, 31, 32, 33, 34, 35, 36, 37,	
		2792	*	
		2793	* LOGICAL- 1C, 3A, 1D, 3B, X	
		2794	* PHYSICAL 38, 39, 3A, 3B, X	
		2795	*	
		2796	*	
		2797	CALLING SEQUENCE	
		2798	BAL CONVT,R6	
		2799	*	
		2800	RETURN	
		2801	B (TT304+2)	
		2802	*	
		2803	*	
		2804	*	
		2805	*****	
		2806	*	
003674	6E0D 36B4	2807	CONVT MVW R6,TT304+2 SETUP RETURN ADDR	
003678	802B 353A 3559	2808	CB ZER00,LGSEC+1 CK FOP LOG # ZERO	
00367E	100D	2809	JE TT303 BCH IF LOG # IS ZERO	
003680	802B 3559 355C	2810	CB LGSEC+1,CB29 COMP LOG TO 29	
003684	1C0D	2811	RTT01 JGE RTT01 BCH IF LGSEC EQ OF LESS THAN CB29	
003688	4024 0002	2812	MVW RTT01 SETUP MULTIPLIER	
00368C	E821 3559	2813	MB LGSEC+1,R0 LOG SECTOR # TIMES 2	
003690	7802 003C	2814	SWI 60,R0 LOG SEC TIMES 2 MINUS 60	
003694	C028 355B	2815	MVB R0,PHYS+1 PHYSICAL SECTOR NUMBER	
003698	500C	2816	J TT304 RETURN TO CALLER	
00369A	8028 355E 355B	2817	TT303 MVB FIVE9,PHYS+1 PHYSICAL SECTOR # 59	
00369E	5008	2818	J TT304 RETURN TO CALLER	
0036A2	4024 0002	2819	RTT01 MVWI 2,R0 LOAD MULTIPLIER	
0036A6	E821 3559	2820	MB LGSEC+1,R0 LOG SECTOR # TIMES 2	
0036AA	7802 0001	2821	SWI 1,R0 SUBTRACT ONE	
0036AE	C028 355B	2822	MVR R0,PHYS+1 LOAD PHYSICAL SECTOR #	
0036B2	6802 0000	2823	B *-* RETURN TO CALLER	
		2824	*	
		2825	*****	
		2826	*	
		2827	SUBROUTINE	
		2828	*	
		2829	PURPOSE	
		2830	*	
		2831	LOAD WRITE SECTOR ID DATA BUFFER FROM RD SEC ID BUFFER	
		2832	*	

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2833 * CALLING SEQUENCE
2834 *
2835 * BAL LWSID,P6
2836 *
2837 * RETURN
2838 *
2839 * BXS (P6)
2840 *
2841 *****
2842 *
2843 *
2844 LWSID MVWI 5,P7 BYTE COUNT
2845 MVA SCTLID+1,R3 ADDR OF RD SECT ID DATA BUFFER
2846 MVA WPSID,R5 ADDR OF WR SECT ID DATA BUFFER
2847 MVFN (R3),(R5) MOV DATA FROM RD TO WR BUFFER
2848 BXS (P6) RETURN TO CALIEP
2849 *
2850 *
2851 *
2852 * EXECUTE INPUT & OUTPUT COMMANDS
2853 * TO EXECUTE ALL I/O COMMANDS FROM A COMMON PLACE.
2854 * EACH OF THESE ENTRIES SET R7 WITH THE ADDR OF ITS PARMETER
2855 * LIST AND ANY SPECIAL SWITCHES BEFORE BRANCHING TO THE
2856 * SUPVR CALL.
2857 * THIS SUBROUTINE WILL CHECK FOR THE FOLLOWING:
2858 * 1. LOST INTERRUPTS BY TIMING OUT A COUNTING LOOP
2859 * 2. ERROR INTERRUPTS RECEIVED FROM SUPVR
2860 *
2861 * THIS ROUTINE HAS THE FOLLOWING ENTRIES:
2862 *
2863 *
2864 *
2865 * 1 BAL SRKEW,P6 PEAD SECTOR ID SKEWED
2866 *
2867 * 2 BAL \$WKST,R6 WRITE SECTOR ID SKEWED (TEST)
2868 *
2869 * 3 BAL \$FWST,P6 READ SECTOR ID SKEWED (TEST)
2870 *
2871 * 4 BAL \$PIDS,P6 READ SECTOR ID (TEST)
2872 *
2873 * 5 BAL \$WKEW,R6 WRITE SECTOR ID SKEWED
2874 *
2875 * 6 BAL \$WSEC,R6 WRITE SFCTOR ID
2876 *
2877 * 7 BAL \$WSTS,R6 WRITE SECTOR ID (TEST)
2878 *
2879 * 8 BAL \$DIAG,R6 DIAGNOSTIC
2880 *
2881 * 9 BAL XIOCS,P6 CYCLE STEAL STATUS
2882 *
2883 * 10 BAL \$SEEK,P6 SEEK
2884 *
2885 * 11 BAL \$FECL,R6 RECALIBRATE
2886 *
2887 * 12 BAL \$RDID,R6 PEAD SECTOR ID
2888 *
2889 * 13 BAL \$RD,R6 PEAD
2890 *
2891 * 14 BAL \$RDVY,R6 PEAD VERIFY
2892 *
2893 * 15 BAL \$WRT,R6 WRITE
2894 *
2895 *
2896 * \$SEEK MVA SKDCB,IODCB SET UP CONTROL BLOCK FOR SVC CALL
2897 * J XIO
2898 *
2899 * \$RECL MVA CLDCB,IODCB SET UP BLOCK FOR SVC CALL
2900 * J XIO
2901 *
2902 * \$RDID MVA RSDCB,IODCB SET UP BLOCK FOR SVC CALL
2903 * MVBI X'FF',R3 SET BUFFER TO F'S
2904 * MVA SCTLID,R5 SETUP READ SECTOR ID BUFFER ADRS
2905 * MVWI 6,R7 SETUP BUFFER LENGTH
2906 * FFN R3,(R5) INIT READ SECTOR ID BUFFER
2907 * MVA SCTLID,RSDCB+14 DATA ADDR
2908 * J XIO
2909 *
2910 * \$RD MVBI X'FF',R3 SETRD BUFFER TO ALL F'S
2911 * MVW RDDCB+14,R5 SET UP READ BUFFER ADRS
2912 * MVWI X'0100',R7 SET UP BUFFER LENGTH
2913 * FFN R3,(R5) CLEAR READ BUFFER
2914 * MVA RDDCB,IODCB SET UP BLOCK FOR SVC CALL
2915 * J XIO
2916 *
2917 * \$RDVY MVA VRDCB,IODCB SET UP CONTROL BLOCK FOR SVC CALL
2918 * J XIO
2919 *
2920 * \$WRT MVA WRDCB,IODCB SET UP CONTROL BLOCK FOR SVC CALL
2921 * J XIO
2922 *
2923 * \$RKEW MVA RKDCB,IODCB SET UP CONTROL BLOCK FOR SVC CALL
2924 * MVBI X'FF',R3 SET BUFFER TO F'S
2925 * MVA SCTLID,R5 SETUP READ SECTOR ID BUFFER ADRS
2926 * MVWI 6,R7 SETUP BUFFER LENGTH
2927 * FFN R3,(R5) INIT READ SECTOR ID BUFFER
2928 * MVA SCTLID,RKDCB+14 DATA ADDR
2929 * J XIO
2930 *
2931 * \$WKST MVA WKDCB,IODCB SET UP CONTROL BLOCK FOR SVC CALL
2932 * MVA WSIDT,WKDCB+14 DATA ADDR
2933 * J XIO
2934 *
2935 * \$RWST MVA FKDCB,IODCB SET UP CONTROL BLOCK FOR SVC CALL
2936 * MVA SCTST,FKDCB+14 DATA ADDR
2937 * J XIO
2938 *
2939 * \$RIDS MVA RSDCB,IODCB SET UP CONTROL BLOCK FOR SVC CALL
2940 * MVBI X'FF',R3 SET BUFFER TO F'S
2941 * MVA SCTLID,R5 SETUP PEAD SECTOR ID BUFFER ADRS
2942 * MVWI 6,R7 SETUP BUFFER LENGTH
2943 * FFN R3,(R5) INIT READ SECTOR ID BUFFER
2944 * MVA SCTST,PSDCB+14 DATA ADDR
2945 * J XIO
2946 *
2947 * \$WKEW MVA WKDCB,IODCB SET UP CONTROL BLOCK FOR SVC CALL

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00376A 4020 3528 3560 2948 MVA WPSID,WKDCB+14 DATA ADDR
003770 5012 2949 J XIO
2950 *
003772 4020 3898 349A 2951 \$WSEC MVA WSDCB,IODCB SET UP CONTROL BLOCK FOR SVC CALL
003773 4020 34A8 3560 2952 MVA WRSID,WSDCB+14 DATA ADDR
00377E 500B 2953 J XIO
0037A0 4020 3898 349A 2954 \$WSTS MVA WSDCB,IODCB SET UP CONTROL BLOCK FOR SVC CALL
003786 4020 34A8 3568 2955 MVA WSIDT,WSDCB+14 DATA ADDR
00378C 5004 2956 J XIO
2957 *
00378E 4020 3898 347A 2958 \$DIAG MVA DGDCE,IODCB SET UP CONTROL BLOCK FOR SVC CALL
003794 5000 2959 J XIO
2960 *
2961 *****29JUL76**
2962 *
2963 * SUB-ROUTINE
2964 *
2965 * EXECUTE INPUT AND OUTPUT COMMANDS
2966 *
2967 * PURPOSE
2968 *
2969 * TO EXECUTE ALL I/O COMMANDS FROM A COMMON PLACE.
2970 * THIS SUBROUTINE WILL DO THE FOLLOWING FUNCTIONS:
2971 *
2972 * 1. SAVE THE ADDRESS THAT POINTS TO THE INSTRUCTION THAT STARTED
2973 * THE I/O COMMAND.
2974 * 2. SAVES THE DCB BLOCK USED UNLESS IT IS A START CYCLE STATUS
2975 * ISSUED BY THIS SUBROUTINE.
2976 * 3. CLEAR OUT THE CYCLE STEAL STATUS STORAGE UNLESS THE
2977 * START CYCLE STATUS WAS ISSUED BY THIS SUBROUTINE.
2978 * 4. RESETS THE INTERRUPT INDICATOR AND CHECKS FOR ANY INTERRUPT
2979 * SINCE THE LAST EXPECTED INTERRUPT. IF AN INTERRUPT IS FOUND,
2980 * MYSTERY INTERRUPT (MI) CONTROL BIT IS SET.
2981 * 5. MOVES THE ADDRESS OF THE I/O CONTROL BLOCK IN R7, SET THE
2982 * EXPECTED INTERRUPT CONTROL BIT AND ISSUE THE 'SVC STAPT'.
2983 * 6. WHEN THE SUPVR RETURNS AFTER ISSUING THE I/O COMMAND, TIMING
2984 * STARTS TO DETERMINE A LOST INTERRUPT.
2985 * 7. EXCEPT THE INTERRUPT AND GATHER INFORMATION TO DETERMINE IF IT
2986 * WAS AN ERROR OR OKAY AND EXIT OFF THE INTERRUPT LEVEL.
2987 * 8. CHECK IF THERE WAS A WRONG INTERRUPT LEVEL.
2988 * 9. CHECK IF THERE WAS AN ERROR AND IF THERE WAS RETURN.
2989 * 10. CHECK IF THERE WAS AN ERROR CONDITION IF NOT RETURN.
2990 * 11. CHECK TO SEE IF THE EXERCISER IS TO BE TERMINATED.
2991 * 12. CHECK IF A CYCLE STEAL OPERATION WAS IN PROGRESS THAT WAS
2992 * ISSUED BY THIS SUBROUTINE.
2993 * 13. CHECK THE ISB BITS THAT ARE ON. IF BIT 0 IS ON, ISSUE A
2994 * CYCLE STEAL STATUS COMMAND. CHECK FOR ANY OTHER BIT BEING ON,
2995 * COUNT IT AND SET UP THE PROPER ERROR MESSAGE TO BE PRINTED.
2996 *
2997 * CALLING SEQUENCE
2998 *
2999 * THIS ROUTINE HAS THE FOLLOWING ENTRIES:
3000 *
3001 * --> BAL XIO OR XEQ ANY CYCLE STEAL COMMAND, MOD=0
3002 * --> BAL XIO1 MOD PARM PRELOADED IN 'IOMOD'
3003 * --> BAL XIOCS,R6 OR XEQ STAPT CYCLE STEAL STATUS, MOD=X
3004 * --> BAL XIOCS-4,R6 AUTO CS STATUS (FOLLOWING OTHER XIO
3005 * AND DOES NOT POST INTERRUPT STATUS)
3006 *
3007 * RETURN CONTROL
3008 *
3009 * BXS (R6,2) RETURN TO USER NO ERROP
3010 * OR B (R6,1) RETURN AND RETRY ON ERROR
3011 *****
3013 * XIO MVWZ IOMOD,R3 SET MOD OF 0 FOR CYCLE STEAL OP
3014 * J XIO1 CS I/O'S ARE NOT RETRIED
3015 *
3016 * TBTR (R4,CE) RESET CS STATUS INTRP ERROR INDICAT.
3017 * TBTS (R4,CS) SET 'CYCLE STEAL STATUS' IN PROGRESS
3018 * XIOCS MVA CSDCB,IODCB SET UP CONTROL BLOCK FOR SVC CALL
3019 * MVWI X'000F',IOMOD SET CYCLE STEAL MODIFIER
3020 * TBT (R4,CS) IS CS IN PROGRESS, ERROR CONDITION
3021 * JON XIO2 * YES, BYPASS SAVING I/O ADRS
3022 * XIO1 MVW RG,LSTIO SAVE IAP FOR RETRY IF REQUESTED
3023 * MVA DCBUE,R3 SET UP TO ADRS TO MOVE DCB TABLE
3024 * MVW IODCB,R5 * AND THE FROM ADRS ALONG WITH
3025 * MVBI 16,R7 * THE NUMBER OF MOVES
3026 * MVFN (R5),(R3) MOVE 1 STATUS WORD AND ADJUST
3027 * MVBI 255,R3 CLEAR CYCLE STATUS BUFFER
3028 * MVA CSBUF,R5 * TO ALL ONES *
3029 * MVBI 16,R7 *
3030 * FFN R3,(R5) *
3031 * MVWI X'0708',XIOIN OVERLAY OLD CONDITION CODES
3032 * MVWZ \$ISB,R3 ZERO OUT OLD ISB VALUE
3033 *
3034 * TBTR (R4,ER) RESET ANY ERROR BEFORE I/O COMMAND
3035 * XIO2 TBTS (R4,IN) CLEAR INTERRUPT RECEIVED CNFL BIT
3036 * MVA IOBFL,R7 SET UP CONTROL BLOCK FOR SUPVR
3037 * TBTR (R4,\$LE) RESET LEVEL ERROR INDICATOR
3038 * TBTS (R4,XI) SET EXPECTED INTR CONTROL BIT
3039 * SVC STAPT CALL SUPVR FOR I/O COMMAND
3040 *
3041 * TBTP (R4,NI) IS AN INTR EXPECTED
3042 * BN (R6,2) * NO, RETURN TO USER
3043 *
3044 * THE INTR SHOULD OCCUR WHILE SPINNING IN THE NEXT SECTION
3045 *
3046 * MVBI X'00',R5 SET UP WORK REG FOR 'LOST INTRP'
3047 * XIO8 TBTR (R4,IN) HAS INTERRUPT BEEN RECEIVED
3048 * JON XIOCK * YES, CHECK IF ALL WAS SATISFACTORY
3049 * SVC IDLE ALLOE ANOTHER PROGRAM A CHANCE TO RUN
3050 *
3051 * AWI 1,R5 SUPVR WILL RETURN HERE
3052 * JNZ XIO8 ADVANCE TIME OUT COUNT
3053 * TBTS (R4,ER) RCH IF TIME OUT NOT REACHED
3054 * B (R6,*) SET ON ERROR CONTROL BIT
3055 * *****03FEB76**
3056 *
3057 * SUBROUTINE
3058 *
3059 * I/O EXECUTE ERROR HANDLING ROUTINE
3060 *
3061 * PURPOSE
3062 *
3063 *

LOCTR OBJECT TEXT STMT SOURCE STATEMENT COPYRIGHT IBM CORP 1976
3064** THIS ROUTINE WILL COLLECT INFORMATION TO HELP DETERMINE THE
3065** PROBLEM THAT WAS FOUND WHEN THE I/O COMMAND WAS ISSUED BY THE
3066** SUPERVISOR AND IT WAS NOT ACCEPTED.
3067**
3068** CALLING SEQUENCE
3069**
3070** SUPVP WILL ENTER WHEN AN EPROR OCCURS ON AN I/O COMMAND
3071**
3072** RETURN CONTROL
3073**
3074** B (R6)* RETURN TO USERS EPPOR HANDLER
3075**
3076**
3077**
3078** CC 0= DEVICE NOT ATTACHED
3079** FOR 1= DEVICE BUSY
3080** I/O 2= DEVICE BUSY AFTER RESET
3081** 3= COMMAND REJECT
3082** 4= INTERVENTION REQUIRED
3083** 5= INTERFACE DATA CHECK
3084** 6= CONTROLLER BUSY
3085** 7= I/O COMMAND EXCEPTED
3086**
0037FC 706E
0037FE 336A
003800 C328 2FCF
003804 68D2 0000
3087**XIOER DC X'706E' COPY STATUS ANY LEVEL INTO R3
3088** SRL 13,R3 POSITION INDICATORS IN R3
3089** MVB R3,\$IOIN * PUT IN LOG OUT AREA
3090** B (R6)* RETURN TO USER ERROR HANDLER
3091**
3092**
3093**
3094** SUB-ROUTINE
3095**
3096** ERROR INTERRUPT FUNS ON INTERRUPT LEVEL 'SINTL'
3097**
3098** PURPOSE
3099**
3100** THIS ROUTINE WILL BE ENTERED WHEN THE SUPVR DETECTS AN ERROR
3101** OR THE INTERRUPTING CONDITION CODE DOES NOT AGREE WITH THE
3102** EXPECTED CODE.
3103**
3104** CALLING SEQUENCE
3105**
3106** SUPVR WILL ENTER WHEN AN ERROR OCCURS ON AN I/O INTERRUPT
3107**
3108** RETURN CONTROL
3109**
3110** SVC EXIT RETURN TO USER VIA SUPVR
3111**
3112**
3113**
3114** CC 0= CONTROLLER END ISB 0= ADD STATUS
3115** FOR 1= PROGRAM CONTROL INTERRUPT BITS 1= COMD REJRCT
3116** INTR 2= EXCEPTION INTERRUPT FOP 2= INCOP LENGTH
3117** 3= DEVICE END INTERRUPT INTR 3= DCB SPEC CK
3118** 4= ATTENTION INTERRUPT 4= STG DATA CK
3119** 5= ATTENTION / PROGRAM CNTL INTP 5= INV STG ADPS
3120** 6= ATTENTION / EXCEPTION INTP 6= PPOTRCT CK
3121** 7= ATTENTION / DEVICE END INTR 7= I-FACE DATA
3122**
003808 706E
00380A 336A
00380C 4424 2FC6
003810 4C28
003812 1006
003814 4C6A
003816 6F0D 2FFA
00381A C328 2FFB
00381E 500A
003820 4C24
003822 1002
003824 F304
003826 1006
003828 4C61
00382A 5004
3123**XINTER DC X'706E' COPY STATUS ANY LEVEL INTO P3
3124** SRL 13,R3 POSITION INDICATORS IN R3
3125** MVA OPTN1,R4 SET UP BASE ADPS
3126** TBT (R4,CS) IS CS IN PROGRESS
3127** JOFF INTES * NO
3128** TBTS (R4,CE) TURN ON CYCLE STEAL INTEP EPPOR
3129** MVB R7,CSTL8 SAVE CS EPR ISB VALUE, BITS 0-7
3130** MVB R3,CSTL8+1 * AND THE COND CODE
3131** J INTR1
3132**INTES TBT (R4,XE) TEST EXPECTED ATTEN / EPPOR IND
3133** JOFF INTET BCH IF NOT EXPECTED
3134** CBI 4,R3 IS THIS AN 'ATTENTION' INTR
3135** J INTR1 * YES, BCH TO END INTR SEQUENCE
3136**INTET TBTS (R4,ER) SET ERROR ON I/O COMMAND CNTL BIT
3137** J INTR1
3138**
3139** THE ERROR INTERRUPT USES THE SAME
3140** ENDING SEQUENCE AS THE NOPMAL INTP
3141**
3142**
3143** SOUBROUTINE
3144**
3145** OKAY INTERRUPT FUNS ON INTERRUPT LEVEL 'SINTL'
3146**
3147** PURPOSE
3148**
3149** TO CHECK THE INTERRUPT AND CONTINUE THE TEST
3150**
3151** CALLING SEQUENCE
3152**
3153** SUPERVISOR WILL ENTER HEPE IF INTP CC IS AS REQUESTED
3154** THE ERROR INTERRUPT HANDLER WILL BRANCH TO THIS ROUTINE
3155** AFTEP THE SPECIAL PART HAS BEEN COMPLETED AND THE
3156** COMMON SECTION IS HANDLED HERE.
3157**
3158** RETURN CONTROL
3159**
3160** SVC EXIT RETURN TO USER VIA SUPVR
3161**
3162**
3163**INTOK DC X'706E' COPY STATUS ANY LEVEL INTO P3
3164** SRL 13,R3 POSITION INDICATORS IN R3
3165** MVA OPTN1,R4 SET UP BASE ADPS
3166**INTR1 TBTS (R4,IN) SET INTERRUPT RECEIVED
3167** TBT (R4,CS) IS 'CS IN PROGRESS' ON
3168** JON INTR2 * YES, BCH AROUND UPDATE
3169** MVB R3,\$IOIN+1 SAVE INTERRUPTING CC CODE
3170** MVB R7,\$ISB SAVE INTR STATUS AND DEV ADPS
3171**INTR2 EQU *
3172** CACL R5 CURRENT LEVEL COPIED BY DCP
3173** SLI 4,R5 POSITION INTR LEVEL AND PUT
3174** ABI 1,R5 * IN 'I' BIT
3175** CW \$INTL,R5 IS THIS THE CORRECT INTR LEVEL
3176** JE INTR3 * YES, GO EXIT THIS LEVEL
3177** TBTS (R4,\$LE) SET INTP EPPOR CONTROL BIT
3178** TBTS (R4,EF) SET ERROR ON I/O COMMAND CNTL BIT
3179**INTR3 TBTR (R4,XI) WAS INTERRUPT EXPECTED

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003852 1204 3180+ JON INTRX * YES, EXIT OFF THIS INTR LEVEL IL
003854 4C60 3181+ TBTS (R4,MI) * NO, SET MYSTERY INTP CONTROL BIT IL
003856 F304 3182+ CBI 4,P3 ATTENTION INTERRUPT? IL
003858 1001 3183+ JE INTRX YES IL
00385A 4C6C 3184+ TBTS (R4,NG) ERROR, UNEXPECTED INTERRUPT IL
00385C 6006 3185+INTRX SVC EXIT EXIT THIS LEVEL VIA SUPVR TO PGM IL
3187**
3188**
3189** THIS IS THE CONTINUATION OF EXECUTE I/O AFTER THE INTERRUPT
3190** HAS BEEN SERVICED. THE EXERCISER FINDS AN INTERRUPT HAS BEEN
3191** RECEIVED AND BRANCHES HERE TO CHECK FOR ANY ERROR CONDITIONS.
3192**
3193**
3194**XIOCK TBTR (R4,XE) WAS AN ERROR EXPECTED
3195** BN (R6,2) * YES, EXIT THIS ROUTINE
3196** TBTR (R4,CS) WAS AUTO CS IN PROGRESS
3197** JOFF XIOCV * NO, CONTINUE CHECKING
3198** TBT (R4,CE) IS CS IN AN ERR CONDITION
3199** JOFF XIOCO * NO, BCH
3200** B (R6)* CS ERROR
3201**XIOCO TBTS (R4,CSA) TURN ON CS STATS AVAIL FLAG
3202** BXS (R6,2) GO TO USER
3203**XIOCV TBT (R4,ER) WAS ERROR INTR CONTROL BIT ON
3204** JOFF XIOCV * NO, EXIT THIS ROUTINE
3205**
3206** MVB \$IOIN+1,R5 GET LAST INTP CC CODE
3207** CBI 2,R5 IS THIS CC=2
3208** BNE (R6)* * NO, BCH TO EPPOR HANDLER
3209**XIOCO MVB \$ISB,R5 GET LAST ISB DATA BYTE AND IF CS
3210** BN XIOCS-4 * AVAILABLE, GO AND GET IT
3211** B (R6)* ERROR
3212**XIOCV MVBZ OPTN3,R3 CLEAR OUT OPTION 3 CNTL BITS
3213** BXS (P6,2) RETURN TO USER VIA REG 6
3214**
3215** I/O PARAMETER LIST
3216**
3217**IOBLK DC A (DEVADD) ADPS OF DEVICE ADPS
3218** DC A (XIOER) ERROR ROUTINE ADPS
3219**IODCB DC A (*,*) DCB ADPS OR LEVEL & INTR
3220**IOMOD DC A (*,*) MODIFIER
3221** DC A (*,*) ADPS OF LAST SVC CALL
3222**IORSP DC A (*,*) SECOND WORD OF LAST IDCB
3223**
3224** INTERRUPT CONTROL BLOCK FOR I/O COMMANDS
3225**
0038A0 19D0 3226**INTBL DC A (DEVADD) ADPS OF DEVICE ADPS
0038A2 382C DC A (INTOK) INTERRUPT OF RETURN ADPS
0038A4 3808 DC A (INTR) INTERRUPT ERROR ADPS
0038A6 0003 DC X'0003' INTERRUPT CODE EXPECTED
3227**
3228**
3229**INTCC DC X'0003'
3230**
3231**
3232**
3233** SUBROUTINE
3234**
3235** CONNECT INTERRUPT CONTROL BLOCK & PREPARE DEVICE
3236**
3237** PURPOSE
3238**
3239** TO CONNECT THE INTERRUPT CONTROL BLOCK TO THIS DEVICE AND
3240** PREPARE ON THE DESIRED INTERRUPT LEVEL AND TO ALLOW THE DEVICE
3241** TO INTERRUPT.
3242**
3243** CALLING SEQUENCE
3244**
3245** THIS SUBROUTINE HAS THE FOLLOWING ENTRIES:
3246**
3247** --> BAL \$CONC,R6 CLEAR DEV DEP STG AND CONNECT I/O BLK
3248** --> BAL \$CONP,R6 PREPARE DEVICE ONLY, ALREADY CONNECT
3249**
3250** RETURN CONTROL
3251**
3252** BXS (R6,2) RETURN TO USER VIA REG 6 IF OKAY
3253** OR B (R6)* IF THE DEVICE COULD NOT BE CONNECTED
3254**
3255**
3256**\$CONC MVB 6,R7 NUMBER OF BYTE TO CLEAR
0038A8 0F06 MVB 0,P3 * AND THE DATA TO USE
0038AA 0B00 MVA DEV1,R5 * ALONG WITH THE ADPS TO USE
0038AC 4524 2FD4 MVA R3,(R5) *
0038B0 2BAC MVBZ OPTN3,R3 CLEAR OLD CONTROLS FOR NEW ROUTINE
0038B2 CB25 2FCA MVA INTBL,R7 SET R7 TO CONTROL BLOCK AND
0038B6 4724 38A0 SVC CIOB * CONNECT IT TO THIS DEVICE
0038BA 6014 EPPOR RETURN TO USER
0038BC 6AD0 0000 BN (P6)*
3265**\$CONP MVB \$INTL,IODCB PUT IN LEVEL & INTR PARAMETER
0038C0 8828 3002 3898 MVA IOBLK,R7 SET R7 TO CONTROL BLOCK TO PREPARE
0038C6 4724 3894 MVTI X'0708',\$IOIN INITIALIZE CONDITION CODE STOPAGE
0038CA 4020 2FCE 0708 MVBZ \$ISB,R3 * AND CLEAR OLD ISB VALUE
0038D0 CB25 2FD0 MVB R6,\$STIO SET UP ADDRESS THAT STARTED LAST I/O
0038D4 6E0D 2FD2 MVB R6,\$STIO * AND CALL ON SUPVR
0038D8 600C SVC PREP RETURN TO USER
0038DA 5601 BXS (P6,2)
3273**
3274**
3275** SUBROUTINE
3276**
3277** DISCONNECT THE INTERRUPT CONTROL BLOCK AND LOG EPPORS
3278**
3279** PURPOSE
3280**
3281** DISCONNECT THE INTERRUPT CONTROL BLOCK TO THIS DEVICE AND
3282** SET THE 'NO GOOD' CONTROL BIT, THEN LOG THE DATA THAT HAS
3283** BEEN FOUND TO HELP THE OPERATOR DEFINE THE EPPOR CONDITION.
3284**
3285** CALLING SEQUENCE
3286**
3287** THIS SUBROUTINE HAS THE FOLLOWING ENTRIES:
3288**
3289** --> B \$ERRS SET 'NG' BIT AND CONVERT DATA TO LOG
3290** --> B \$CONY RETURN TO MDI SUPERVISOR TO TEST STS
3291**
3292** RETURN CONTROL
3293**
3294** E TUPTN* RETURN TO MDI
3295** OR B (R6)* IF THE DEVICE COULD NOT BE CONNECTED
3296**

LOCTR	OBJECT TEXT	STMT	SOURCE STATEMENT	COPYRIGHT IBM CORP 1976
0038DC	4020 1818 8000	3297*	*****	
0038E2	4724 3A46	3298*	\$ERR\$ MVBI X'18000'	TUSTATUS SET ON 'NO GOOD' STATUS BIT
0038E6	601A	3299*	HVA HEBLK,R7	GET ADPS OF CONTROL BLOCK
0038E8	0D03	3300*	SVC HTOE	CONVERT HEX TO EBC VIS DCP
0038EA	4324 181A	3301*\$PRNT	MVPI 3,R5	
0038EE	6B0D 3A3E	3302*	HVA TWORK,R3	SET UP BUFFER STORAGE
0038F2	4124 396E	3303*	MVA R3,BUFFT	
0038F6	0F04	3304*	MVA LINE1,R1	
0038F8	0E08	3305*	MVBI 4,R7	
0038FA	2B24	3306*	MVBI 8,R6	
0038FC	0F04	3307*HVBUFF	MVFN (R3),(R1)	
003900	0A40	3308*	MVBI 4,R7	
003902	C258	3309*	MVBI 2,(R1),R2	
003904	B2PB	3310*	MVB R2,(R1)+	
003906	0E08	3311*	JCT HVBUFF,R6	
003908	7921 002C	3312*	MVBI 8,R6	
00390A	BDF7	3313*	AWI 44,R1	
00390C	4020 1802 F1F0	3314*	JCT HVBUFF,R5	
003912	4020 19B8 3A44	3315*	MVWI PIDMSG10,PID+2	
003918	4020 19BA 3A40	3316*	HVA FAKETU,@DCADD1	
00391E	402C 19C4 0080	3317*	HVA DC2PT,@DCADD2	
003924	4324 2FCC	3318*	OWI BIT0080,SUPSTAT	
003928	6F13 18BA	3319*	HVA STUID,R3	SET UP BUFFER STORAGE
		3320*	RAI TUMSGWTP*,P7	GO TO MESSAGE WRITER
00392C		3321*		
00392E	C720 19D0	3322*\$CONX	EQV *	
003930	6013	3323*	MVB DEVADD,R7	GET DEVICE ADDRESS FROM MDI
003932	6812 3004	3324*	RICB	RELEASE INTERRUPT CONTROL BLOCK
		3325*	B TURTN*	RETURN TO MDI SUPERVISOR
003936	0007	3326**		
003938	0008	3327*BEGIN	DC A(0007)	NUMBER OF LINES TO PRINT
00393A	5C5C40C1C2D6D9E3	3328*	DC A(0008)	LINE LENGTH = 8 CHAP
003942	0028	3329*	DC C'***ABORT'	
003944	E384C9C440C9D6C9D	3330*	DC A(0040)	LINE LENGTH = 40 CHAR
003946	0028	3331*	DC C'STUID TOIN ISB INST	DEV1 DEV2 DEV3 DEV4
003948	404040404040404	3332*	DC A(0040)	LINE LENGTH = 40 CHAR
00394A	0028	3333*LINE1	DC C'	
00394C	404040404040404	3334*	DC A(0040)	LINE LENGTH = 40 CHAR
00394E	0028	3335*	DC C'CNTRL DCB2 DCB3 DCB4	DCB5 CHAD BYCT ADPS
003950	C3D5E3D340C43C2F	3336*	DC A(0040)	LINE LENGTH = 40 CHAP
003952	0028	3337*LINE2	DC C'	
003954	404040404040404	3338*	DC A(0040)	LINE LENGTH = 40 CHAR
003956	0028	3339*	DC C'PSID CS-2 CS-3 CS-4	CS-5 CS-6 CS-7 CS-8
003958	D9E2C9C440C3E260F	3340*	DC A(0040)	LINE LENGTH = 40 CHAR
00395A	0028	3341*LINE3	DC C'	
00395C	404040404040404	3342**		
00395E	0000	3343*HVBUFF	DC A(*-*)	
003960	3936	3344*DC2PT	DC A(BEGIN)	
003962	0101	3345*FIXTU	DC X'0101'	
003964	0101	3346*FAKETU	DC X'0101'	
003966	0000	3347*PIDMSG10	EQV X'F1F0'	
003968	0000	3348*BIT0080	EQV X'0080'	
00396A		3349**		
00396C		3350**	DATA CONTROL BLOCK FOR CONVERTING HEX TO EBCDIC	
00396E		3351**		
003970	0030	3352*HEBLK	DC A(48)	NUMBER OF BYTES TO CONVERT
003972	2FCC	3353*	DC A(STUID)	FROM ADPS
003974	181A	3354*	DC A(TWORK)	AND THE TO ADPS
003976	000000	3355	END	

DECLAPED	NAME	ATTRIBUTES AND REPEENCES	CROSS-REFERENCE LISTING	COPYRIGHT IBM CORP 1976
0	.P0.	ABSOLUTE. HEX VALUE(00000000)	2063 2064 2071 2073 2304 2305 2327 2329 2812	
0	.R1.	ABSOLUTE. HEX VALUE(00000001)	2813 2814 2815 2819 2820 2821 2822	
0	.R2.	ABSOLUTE. HEX VALUE(00000002)	3304 3307 3310 3313	
0	.R3.	ABSOLUTE. HEX VALUE(00000003)	1967 1968 1984 1989 1991 1993 1995 2074 2075	
0	.R4.	ABSOLUTE. HEX VALUE(00000004)	2076 2090 2150 2153 2156 2160 2178 2193 2197	
0	.R5.	ABSOLUTE. HEX VALUE(00000005)	2210 2203 2207 2216 2218 2219 2222 2224 2310	
0	.R6.	ABSOLUTE. HEX VALUE(00000006)	2409 2410 2412 2415 2419 3309 3310	
0	.R7.	ABSOLUTE. HEX VALUE(00000007)	2082 2718 2719 2760 2764 2766 2845 2847 2903	
0	.P5.	ABSOLUTE. HEX VALUE(00000005)	2906 2910 2913 2924 2927 2940 2943 3013 3023	
0	.P6.	ABSOLUTE. HEX VALUE(00000006)	3026 3027 3030 3032 3088 3089 3124 3130 3134	
0	.P7.	ABSOLUTE. HEX VALUE(00000007)	3164 3169 3182 3212 3257 3259 3260 3268 3302	
3256	\$CONC	ADDRESS. HEX LOCATION(000038A8) IN CSECT(I7812)	2105 2119 2126 2129	
3322	\$CONX	ADDRESS. HEX LOCATION(0000392C) IN CSECT(I7812)	2300 2332 2339 2393	
3298	\$EPP\$	ADDRESS. HEX LOCATION(000038DC) IN CSECT(I7812)	3017 3020 3034 3035	
1807	\$INTL	ADDRESS. HEX LOCATION(00003002) IN CSECT(I7812)	3125 3126 3128 3132	
1777	\$IOIN	ADDRESS. HEX LOCATION(00002FCB) IN CSECT(I7812)	3178 3179 3181 3184	
1778	\$ISB	ADDRESS. HEX LOCATION(00002FD0) IN CSECT(I7812)	2147 2148 2151 2154 2157 2194 2195 2198 2201	
1762	\$LE	ABSOLUTE. HEX VALUE(00000026)	2204 2398 2399 2401 2403 2405 2407 2761 2765	
2902	\$RDID	ADDRESS. HEX LOCATION(000036D6) IN CSECT(I7812)	2766 2846 2847 2904 2906 2911 2913 2925 2927	
2899	\$RECL	ADDRESS. HEX LOCATION(000036CE) IN CSECT(I7812)	2941 2943 3024 3026 3028 3030 3046 3051 3173	
2939	\$RIDS	ADDRESS. HEX LOCATION(0000374A) IN CSECT(I7812)	3174 3175 3206 3207 3209 3258	
2896	\$SEBK	ADDRESS. HEX LOCATION(000036C6) IN CSECT(I7812)	1963 2059 2079 2086 2097 2105 2119 2126 2129	
1776	\$TUID	ADDRESS. HEX LOCATION(00002FCC) IN CSECT(I7812)	2144 2163 2189 2191 2211 2300 2332 2339 2393	
2951	\$WSEC	ADDRESS. HEX LOCATION(00003772) IN CSECT(I7812)	2395 2403 2424 2427 3016 3017 3020 3034 3035	
2954	\$WSTS	ADDRESS. HEX LOCATION(00003780) IN CSECT(I7812)	3037 3038 3041 3047 3053 3125 3126 3128 3132	
105	@DCADD1	ADDRESS. HEX LOCATION(000019B8) IN CSECT(I7812)	3136 3165 3166 3167 3177 3178 3179 3181 3184	
106	@DCADD2	ADDRESS. HEX LOCATION(000019BA) IN CSECT(I7812)	3194 3196 3198 3201 3203	
42	@FIXT	ABSOLUTE. HEX VALUE(00000101)	2147 2148 2151 2154 2157 2194 2195 2198 2201	
44	@GOTO	ABSOLUTE. HEX VALUE(00000200)	2204 2398 2399 2401 2403 2405 2407 2761 2765	
41	@QUES	ABSOLUTE. HEX VALUE(00000100)	2766 2846 2847 2904 2906 2911 2913 2925 2927	
48	@TUXX	ABSOLUTE. HEX VALUE(00000500)	2941 2943 3024 3026 3028 3030 3046 3051 3173	
3327	BEGIN	ADDRESS. HEX LOCATION(00003936) IN CSECT(I7812)	3174 3175 3206 3207 3209 3258	
3348	BIT0080	ABSOLUTE. HEX VALUE(00000080)	1818 1961 1969 1971 2057 2069 2298 2314 2325	
3343	BUFFT	ADDRESS. HEX LOCATION(00003A3E) IN CSECT(I7812)	2759 2763 2844 2905 2912 2926 2942 3025 3029	
2587	CB29	ADDRESS. HEX LOCATION(0000355C) IN CSECT(I7812)	3036 3129 3170 3256 3261 3266 3299 3305 3308	
2717	CCERR	ADDRESS. HEX LOCATION(0000362E) IN CSECT(I7812)	3320 3323	
1766	CE	ABSOLUTE. HEX VALUE(0000002A)	1964 2060 2307	
1846	CICB	ABSOLUTE. HEX VALUE(00000014)	1964 2060 2307	
2456	CLDCB	ADDRESS. HEX LOCATION(0000348A) IN CSECT(I7812)	1964 2060 2307	

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DECLARED	NAME	ATTRIBUTES AND REFERENCES
2759	CMPRT	ADDRESS. HEX LOCATION(00003650) IN CSECT(I7812) LENGTH(4)
2763	CMPRW	ADDRESS. HEX LOCATION(0000365E) IN CSECT(I7812) LENGTH(4)
2807	CONVT	ADDRESS. HEX LOCATION(00003674) IN CSECT(I7812) LENGTH(4)
2733	CPUID	ABSOLUTE. HEX VALUE(00000232)
1764	CS	ABSOLUTE. HEX VALUE(00000028)
1765	CSA	ABSOLUTE. HEX VALUE(00000029)
1795	CSBUP	ADDRESS. HEX LOCATION(00002FEC) IN CSECT(I7812) LENGTH(1)
2506	CSDCB	ADDRESS. HEX LOCATION(000034DA) IN CSECT(I7812) LENGTH(2)
1803	CSTL8	ADDRESS. HEX LOCATION(00002FFA) IN CSECT(I7812) LENGTH(1)
1785	DCBUF	ADDRESS. HEX LOCATION(00002FDC) IN CSECT(I7812) LENGTH(2)
3344	DC2PT	ADDRESS. HEX LOCATION(00003A40) IN CSECT(I7812) LENGTH(2)
108	DEVADD	ADDRESS. HEX LOCATION(000019D0) IN CSECT(I7812) LENGTH(1)
1780	DEV1	ADDRESS. HEX LOCATION(00002FD4) IN CSECT(I7812) LENGTH(2)
2444	DGDCB	ADDRESS. HEX LOCATION(0000347A) IN CSECT(I7812) LENGTH(2)
70	DUMMY	ABSOLUTE. HEX VALUE(00000000)
1488	ENTPT	ADDRESS. HEX LOCATION(00002C36) IN CSECT(I7812) LENGTH(1)
50	EQ	ABSOLUTE. HEX VALUE(00000000)
1757	ER	ABSOLUTE. HEX VALUE(00000021)
2637	EROSV	ADDRESS. HEX LOCATION(000035C0) IN CSECT(I7812) LENGTH(2)
2633	ER00	ADDRESS. HEX LOCATION(000035B8) IN CSECT(I7812) LENGTH(2)
1832	EXIT	ABSOLUTE. HEX VALUE(00000006)
3346	FAKETU	ADDRESS. HEX LOCATION(00003A44) IN CSECT(I7812) LENGTH(2)
2588	FIVE9	ADDRESS. HEX LOCATION(0000355E) IN CSECT(I7812) LENGTH(2)
1535	F00007	ADDRESS. HEX LOCATION(00002CC2) IN CSECT(I7812) LENGTH(1)
1517	F00010	ADDRESS. HEX LOCATION(00002C5C) IN CSECT(I7812) LENGTH(1)
1513	F00102	ADDRESS. HEX LOCATION(00002C44) IN CSECT(I7812) LENGTH(1)
1521	F00127	ADDRESS. HEX LOCATION(00002C7A) IN CSECT(I7812) LENGTH(1)
1527	F00131	ADDRESS. HEX LOCATION(00002CB6) IN CSECT(I7812) LENGTH(1)
1531	F00139	ADDRESS. HEX LOCATION(00002CBC) IN CSECT(I7812) LENGTH(1)
1539	F00154	ADDRESS. HEX LOCATION(00002CE6) IN CSECT(I7812) LENGTH(1)
1543	F00164	ADDRESS. HEX LOCATION(00002CEC) IN CSECT(I7812) LENGTH(1)
1547	F00181	ADDRESS. HEX LOCATION(00002D10) IN CSECT(I7812) LENGTH(1)
1551	F00183	ADDRESS. HEX LOCATION(00002D16) IN CSECT(I7812) LENGTH(1)
1555	F00186	ADDRESS. HEX LOCATION(00002D1C) IN CSECT(I7812) LENGTH(1)
1559	F00197	ADDRESS. HEX LOCATION(00002D22) IN CSECT(I7812) LENGTH(1)
1563	F00216	ADDRESS. HEX LOCATION(00002D28) IN CSECT(I7812) LENGTH(1)
1567	F00218	ADDRESS. HEX LOCATION(00002D2E) IN CSECT(I7812) LENGTH(1)
1571	F00221	ADDRESS. HEX LOCATION(00002D34) IN CSECT(I7812) LENGTH(1)
1575	F00232	ADDRESS. HEX LOCATION(00002D3A) IN CSECT(I7812) LENGTH(1)
1579	F00251	ADDRESS. HEX LOCATION(00002D40) IN CSECT(I7812) LENGTH(1)
1583	F00253	ADDRESS. HEX LOCATION(00002D46) IN CSECT(I7812) LENGTH(1)
1587	F00256	ADDRESS. HEX LOCATION(00002D4C) IN CSECT(I7812) LENGTH(1)
1591	F00267	ADDRESS. HEX LOCATION(00002D52) IN CSECT(I7812) LENGTH(1)
1595	F00286	ADDRESS. HEX LOCATION(00002D58) IN CSECT(I7812) LENGTH(1)
1599	F00288	ADDRESS. HEX LOCATION(00002D5E) IN CSECT(I7812) LENGTH(1)
1603	F00291	ADDRESS. HEX LOCATION(00002D64) IN CSECT(I7812) LENGTH(1)
1607	F00302	ADDRESS. HEX LOCATION(00002D6A) IN CSECT(I7812) LENGTH(1)
1611	F00321	ADDRESS. HEX LOCATION(00002D70) IN CSECT(I7812) LENGTH(1)
1615	F00323	ADDRESS. HEX LOCATION(00002D76) IN CSECT(I7812) LENGTH(1)
1619	F00326	ADDRESS. HEX LOCATION(00002D7C) IN CSECT(I7812) LENGTH(1)
1623	F00337	ADDRESS. HEX LOCATION(00002D82) IN CSECT(I7812) LENGTH(1)
1627	F00356	ADDRESS. HEX LOCATION(00002D88) IN CSECT(I7812) LENGTH(1)
1631	F00358	ADDRESS. HEX LOCATION(00002D8E) IN CSECT(I7812) LENGTH(1)
1635	F00361	ADDRESS. HEX LOCATION(00002D94) IN CSECT(I7812) LENGTH(1)

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DECLARED	NAME	ATTRIBUTES AND REFERENCES
1639	F00372	ADDRESS. HEX LOCATION(00002D9A) IN CSECT(I7812) LENGTH(1)
1643	F00391	ADDRESS. HEX LOCATION(00002DA0) IN CSECT(I7812) LENGTH(1)
1647	F00393	ADDRESS. HEX LOCATION(00002DA6) IN CSECT(I7812) LENGTH(1)
1651	F00396	ADDRESS. HEX LOCATION(00002DAC) IN CSECT(I7812) LENGTH(1)
1655	F00407	ADDRESS. HEX LOCATION(00002DB2) IN CSECT(I7812) LENGTH(1)
1659	F00426	ADDRESS. HEX LOCATION(00002DB8) IN CSECT(I7812) LENGTH(1)
1683	F00435	ADDRESS. HEX LOCATION(00002EC0) IN CSECT(I7812) LENGTH(1)
1687	F00438	ADDRESS. HEX LOCATION(00002EC6) IN CSECT(I7812) LENGTH(1)
1691	F00449	ADDRESS. HEX LOCATION(00002ECC) IN CSECT(I7812) LENGTH(1)
1707	F00460	ADDRESS. HEX LOCATION(00002F7C) IN CSECT(I7812) LENGTH(1)
1711	F00467	ADDRESS. HEX LOCATION(00002F9F) IN CSECT(I7812) LENGTH(1)
1715	F00470	ADDRESS. HEX LOCATION(00002FA4) IN CSECT(I7812) LENGTH(1)
2631	GDSE0	ADDRESS. HEX LOCATION(000035E4) IN CSECT(I7812) LENGTH(2)
2635	HDOSV	ADDRESS. HEX LOCATION(000035BC) IN CSECT(I7812) LENGTH(2)
2629	HEAD0	ADDRESS. HEX LOCATION(000035B0) IN CSECT(I7812) LENGTH(2)
3352	HEBLK	ADDRESS. HEX LOCATION(00003A46) IN CSECT(I7812) LENGTH(2)
1852	HTOE	ABSOLUTE. HEX VALUE(0000001A)
2727	IDCBCE1	ADDRESS. HEX LOCATION(00003644) IN CSECT(I7812) LENGTH(2)
2729	IDCBCE2	ADDRESS. HEX LOCATION(00003648) IN CSECT(I7812) LENGTH(2)
2731	IDCBRAP	ADDRESS. HEX LOCATION(0000364C) IN CSECT(I7812) LENGTH(2)
2723	IDCB0	ADDRESS. HEX LOCATION(0000363C) IN CSECT(I7812) LENGTH(2)
2725	IDCB1	ADDRESS. HEX LOCATION(00003640) IN CSECT(I7812) LENGTH(2)
1828	IDLE	ABSOLUTE. HEX VALUE(00000002)
1759	IN	ABSOLUTE. HEX VALUE(00000023)
3226	INTBL	ADDRESS. HEX LOCATION(000038A0) IN CSECT(I7812) LENGTH(2)
3123	INTER	ADDRESS. HEX LOCATION(00003808) IN CSECT(I7812) LENGTH(2)
3132	INTES	ADDRESS. HEX LOCATION(00003820) IN CSECT(I7812) LENGTH(2)
3136	INTET	ADDRESS. HEX LOCATION(00003828) IN CSECT(I7812) LENGTH(2)
3163	INTOK	ADDRESS. HEX LOCATION(0000382C) IN CSECT(I7812) LENGTH(2)
66	INTRNL	ABSOLUTE. HEX VALUE(00000000)
3185	INTRX	ADDRESS. HEX LOCATION(0000385C) IN CSECT(I7812) LENGTH(2)
3166	INTR1	ADDRESS. HEX LOCATION(00003834) IN CSECT(I7812) LENGTH(2)
3171	INTR2	ADDRESS. HEX LOCATION(00003842) IN CSECT(I7812) LENGTH(1)
3179	INTR3	ADDRESS. HEX LOCATION(00003850) IN CSECT(I7812) LENGTH(2)
3217	IOBLK	ADDRESS. HEX LOCATION(00003894) IN CSECT(I7812) LENGTH(2)
3219	IODCB	ADDRESS. HEX LOCATION(00003898) IN CSECT(I7812) LENGTH(2)
3220	IOMOD	ADDRESS. HEX LOCATION(0000389A) IN CSECT(I7812) LENGTH(2)
40	I7812	CSECT. START(00002500) LENGTH(5452) ESDID(0)
2585	LGSEC	ADDRESS. HEX LOCATION(00003558) IN CSECT(I7812) LENGTH(2)
3333	LINP1	ADDRESS. HEX LOCATION(0000396E) IN CSECT(I7812) LENGTH(40)
1779	LSTIO	ADDRESS. HEX LOCATION(00002FD2) IN CSECT(I7812) LENGTH(2)
2844	LWSID	ADDRESS. HEX LOCATION(000036B6) IN CSECT(I7812) LENGTH(4)
1756	MI	ABSOLUTE. HEX VALUE(00000020)
3307	MYBUF	ADDRESS. HEX LOCATION(000038FA) IN CSECT(I7812) LENGTH(2)
62	MX	ABSOLUTE. HEX VALUE(00000204)
1768	NG	ABSOLUTE. HEX VALUE(0000002C)
1763	NI	ABSOLUTE. HEX VALUE(00000027)
636	N00001	ADDRESS. HEX LOCATION(000026A0) IN CSECT(I7812) LENGTH(2)
639	N00002	ADDRESS. HEX LOCATION(000026A4) IN CSECT(I7812) LENGTH(2)
642	N00003	ADDRESS. HEX LOCATION(000026A8) IN CSECT(I7812) LENGTH(2)
654	N00004	ADDRESS. HEX LOCATION(000026BA) IN CSECT(I7812) LENGTH(2)
666	N00005	ADDRESS. HEX LOCATION(000026CC) IN CSECT(I7812) LENGTH(2)
669	N00006	ADDRESS. HEX LOCATION(000026D0) IN CSECT(I7812) LENGTH(2)
672	N00007	ADDRESS. HEX LOCATION(000026D4) IN CSECT(I7812) LENGTH(2)

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DECLARED	NAME	ATTRIBUTES AND REFERENCES
675	N00008	336 ADDRESS. HEX LOCATION(000026D8) IN CSECT(I7812) LENGTH(2)
678	N00009	339 670 ADDRESS. HEX LOCATION(000026DC) IN CSECT(I7812) LENGTH(2)
684	N00010	342 667 ADDRESS. HEX LOCATION(000026E8) IN CSECT(I7812) LENGTH(2)
696	N00011	345 655 ADDRESS. HEX LOCATION(000026FA) IN CSECT(I7812) LENGTH(2)
702	N00012	348 ADDRESS. HEX LOCATION(00002706) IN CSECT(I7812) LENGTH(2)
705	N00013	351 685 ADDRESS. HEX LOCATION(0000270A) IN CSECT(I7812) LENGTH(2)
717	N00014	354 643 ADDRESS. HEX LOCATION(0000271C) IN CSECT(I7812) LENGTH(2)
729	N00015	357 ADDRESS. HEX LOCATION(0000272E) IN CSECT(I7812) LENGTH(2)
735	N00016	360 ADDRESS. HEX LOCATION(0000273A) IN CSECT(I7812) LENGTH(2)
738	N00017	363 718 ADDRESS. HEX LOCATION(0000273E) IN CSECT(I7812) LENGTH(2)
750	N00018	366 706 ADDRESS. HEX LOCATION(00002750) IN CSECT(I7812) LENGTH(2)
762	N00019	369 ADDRESS. HEX LOCATION(00002762) IN CSECT(I7812) LENGTH(2)
768	N00020	372 ADDRESS. HEX LOCATION(0000276E) IN CSECT(I7812) LENGTH(2)
780	N00021	375 751 ADDRESS. HEX LOCATION(00002782) IN CSECT(I7812) LENGTH(2)
792	N00022	378 ADDRESS. HEX LOCATION(00002796) IN CSECT(I7812) LENGTH(2)
804	N00023	381 ADDRESS. HEX LOCATION(000027AA) IN CSECT(I7812) LENGTH(2)
810	N00024	384 ADDRESS. HEX LOCATION(000027B6) IN CSECT(I7812) LENGTH(2)
816	N00025	387 793 ADDRESS. HEX LOCATION(000027C2) IN CSECT(I7812) LENGTH(2)
822	N00026	390 781 ADDRESS. HEX LOCATION(000027CE) IN CSECT(I7812) LENGTH(2)
834	N00027	393 769 ADDRESS. HEX LOCATION(000027E0) IN CSECT(I7812) LENGTH(2)
846	N00028	396 ADDRESS. HEX LOCATION(000027F2) IN CSECT(I7812) LENGTH(2)
852	N00029	399 ADDRESS. HEX LOCATION(000027FE) IN CSECT(I7812) LENGTH(2)
855	N00030	402 835 ADDRESS. HEX LOCATION(00002802) IN CSECT(I7812) LENGTH(2)
867	N00031	405 823 ADDRESS. HEX LOCATION(00002816) IN CSECT(I7812) LENGTH(2)
879	N00032	408 ADDRESS. HEX LOCATION(0000282A) IN CSECT(I7812) LENGTH(2)
891	N00033	411 ADDRESS. HEX LOCATION(0000283E) IN CSECT(I7812) LENGTH(2)
897	N00034	414 ADDRESS. HEX LOCATION(0000284A) IN CSECT(I7812) LENGTH(2)
903	N00035	417 880 ADDRESS. HEX LOCATION(00002856) IN CSECT(I7812) LENGTH(2)
909	N00036	420 868 ADDRESS. HEX LOCATION(00002862) IN CSECT(I7812) LENGTH(2)
921	N00037	423 856 ADDRESS. HEX LOCATION(00002874) IN CSECT(I7812) LENGTH(2)
933	N00038	426 ADDRESS. HEX LOCATION(00002886) IN CSECT(I7812) LENGTH(2)
939	N00039	429 ADDRESS. HEX LOCATION(00002892) IN CSECT(I7812) LENGTH(2)
942	N00040	432 822 ADDRESS. HEX LOCATION(00002896) IN CSECT(I7812) LENGTH(2)
954	N00041	435 910 ADDRESS. HEX LOCATION(000028AA) IN CSECT(I7812) LENGTH(2)
966	N00042	438 ADDRESS. HEX LOCATION(000028BE) IN CSECT(I7812) LENGTH(2)
978	N00043	441 ADDRESS. HEX LOCATION(000028D2) IN CSECT(I7812) LENGTH(2)
984	N00044	444 ADDRESS. HEX LOCATION(000028DE) IN CSECT(I7812) LENGTH(2)
990	N00045	447 967 ADDRESS. HEX LOCATION(000028EA) IN CSECT(I7812) LENGTH(2)
996	N00046	450 955 ADDRESS. HEX LOCATION(000028F6) IN CSECT(I7812) LENGTH(2)
1008	N00047	453 943 ADDRESS. HEX LOCATION(00002908) IN CSECT(I7812) LENGTH(2)
1020	N00048	456 ADDRESS. HEX LOCATION(0000291A) IN CSECT(I7812) LENGTH(2)
1026	N00049	459 ADDRESS. HEX LOCATION(00002926) IN CSECT(I7812) LENGTH(2)
1029	N00050	462 1009 ADDRESS. HEX LOCATION(0000292A) IN CSECT(I7812) LENGTH(2)
1041	N00051	465 997 ADDRESS. HEX LOCATION(0000293E) IN CSECT(I7812) LENGTH(2)
1053	N00052	468 ADDRESS. HEX LOCATION(00002952) IN CSECT(I7812) LENGTH(2)
1065	N00053	471 ADDRESS. HEX LOCATION(00002966) IN CSECT(I7812) LENGTH(2)
1071	N00054	474 ADDRESS. HEX LOCATION(00002972) IN CSECT(I7812) LENGTH(2)
1077	N00055	477 1054 ADDRESS. HEX LOCATION(0000297E) IN CSECT(I7812) LENGTH(2)
1083	N00056	480 1042 ADDRESS. HEX LOCATION(0000298A) IN CSECT(I7812) LENGTH(2)
1095	N00057	483 1030 ADDRESS. HEX LOCATION(0000299C) IN CSECT(I7812) LENGTH(2)
1107	N00058	486 ADDRESS. HEX LOCATION(000029AE) IN CSECT(I7812) LENGTH(2)
1113	N00059	489 ADDRESS. HEX LOCATION(000029BA) IN CSECT(I7812) LENGTH(2)
1116	N00060	492 1096 ADDRESS. HEX LOCATION(000029BE) IN CSECT(I7812) LENGTH(2)
1128	N00061	495 1084 ADDRESS. HEX LOCATION(000029D2) IN CSECT(I7812) LENGTH(2)
1140	N00062	498 ADDRESS. HEX LOCATION(000029E6) IN CSECT(I7812) LENGTH(2)
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1152	N00063	504 ADDRESS. HEX LOCATION(000029FA) IN CSECT(I7812) LENGTH(2)
1158	N00064	507 1141 ADDRESS. HEX LOCATION(00002A06) IN CSECT(I7812) LENGTH(2)
1164	N00065	510 1129 ADDRESS. HEX LOCATION(00002A12) IN CSECT(I7812) LENGTH(2)
1170	N00066	513 1117 ADDRESS. HEX LOCATION(00002A1E) IN CSECT(I7812) LENGTH(2)
1182	N00067	516 ADDRESS. HEX LOCATION(00002A30) IN CSECT(I7812) LENGTH(2)
1194	N00068	519 ADDRESS. HEX LOCATION(00002A42) IN CSECT(I7812) LENGTH(2)
1200	N00069	522 1183 ADDRESS. HEX LOCATION(00002A4E) IN CSECT(I7812) LENGTH(2)
1203	N00070	525 1171 ADDRESS. HEX LOCATION(00002A52) IN CSECT(I7812) LENGTH(2)
1215	N00071	528 ADDRESS. HEX LOCATION(00002A66) IN CSECT(I7812) LENGTH(2)
1227	N00072	531 ADDRESS. HEX LOCATION(00002A7A) IN CSECT(I7812) LENGTH(2)
1239	N00073	534 ADDRESS. HEX LOCATION(00002A8E) IN CSECT(I7812) LENGTH(2)
1245	N00074	537 1228 ADDRESS. HEX LOCATION(00002A9A) IN CSECT(I7812) LENGTH(2)
1251	N00075	540 1216 ADDRESS. HEX LOCATION(00002AA6) IN CSECT(I7812) LENGTH(2)
1257	N00076	543 1204 ADDRESS. HEX LOCATION(00002AB2) IN CSECT(I7812) LENGTH(2)
1269	N00077	546 ADDRESS. HEX LOCATION(00002AC4) IN CSECT(I7812) LENGTH(2)
1281	N00078	549 ADDRESS. HEX LOCATION(00002AD6) IN CSECT(I7812) LENGTH(2)
1287	N00079	552 1270 ADDRESS. HEX LOCATION(00002AE2) IN CSECT(I7812) LENGTH(2)
1290	N00080	555 1258 ADDRESS. HEX LOCATION(00002AE6) IN CSECT(I7812) LENGTH(2)
1302	N00081	558 ADDRESS. HEX LOCATION(00002AFA) IN CSECT(I7812) LENGTH(2)
1314	N00082	561 ADDRESS. HEX LOCATION(00002B0E) IN CSECT(I7812) LENGTH(2)
1326	N00083	564 ADDRESS. HEX LOCATION(00002B22) IN CSECT(I7812) LENGTH(2)
1332	N00084	567 1315 ADDRESS. HEX LOCATION(00002B2E) IN CSECT(I7812) LENGTH(2)
1338	N00085	570 1303 ADDRESS. HEX LOCATION(00002B3A) IN CSECT(I7812) LENGTH(2)
1344	N00086	573 1291 ADDRESS. HEX LOCATION(00002B46) IN CSECT(I7812) LENGTH(2)
1356	N00087	576 ADDRESS. HEX LOCATION(00002B58) IN CSECT(I7812) LENGTH(2)
1368	N00088	579 ADDRESS. HEX LOCATION(00002B6A) IN CSECT(I7812) LENGTH(2)
1374	N00089	582 1357 ADDRESS. HEX LOCATION(00002B76) IN CSECT(I7812) LENGTH(2)
1377	N00090	585 1345 ADDRESS. HEX LOCATION(00002B7A) IN CSECT(I7812) LENGTH(2)
1389	N00091	588 ADDRESS. HEX LOCATION(00002B8E) IN CSECT(I7812) LENGTH(2)
1401	N00092	591 ADDRESS. HEX LOCATION(00002BA2) IN CSECT(I7812) LENGTH(2)
1413	N00093	594 1501 ADDRESS. HEX LOCATION(00002BB6) IN CSECT(I7812) LENGTH(2)
1416	N00094	597 1402 ADDRESS. HEX LOCATION(00002EBA) IN CSECT(I7812) LENGTH(2)
1422	N00095	600 1390 ADDRESS. HEX LOCATION(00002BC6) IN CSECT(I7812) LENGTH(2)
1428	N00096	603 1378 ADDRESS. HEX LOCATION(00002BD2) IN CSECT(I7812) LENGTH(2)
1440	N00097	606 ADDRESS. HEX LOCATION(00002BE4) IN CSECT(I7812) LENGTH(2)
1452	N00098	609 1504 ADDRESS. HEX LOCATION(00002BF6) IN CSECT(I7812) LENGTH(2)
1455	N00099	612 1441 ADDRESS. HEX LOCATION(00002EFA) IN CSECT(I7812) LENGTH(2)
1458	N00100	615 1429 ADDRESS. HEX LOCATION(00002BFE) IN CSECT(I7812) LENGTH(2)
1464	N00101	618 1739 ADDRESS. HEX LOCATION(00002C0A) IN CSECT(I7812) LENGTH(2)
1476	N00102	621 ADDRESS. HEX LOCATION(00002C1C) IN CSECT(I7812) LENGTH(2)
1482	N00103	624 1465 ADDRESS. HEX LOCATION(00002C28) IN CSECT(I7812) LENGTH(2)
61	OP	ABSOLUTE. HEX VALUE(00000202)
60	ON	ABSOLUTE. HEX VALUE(00000200)
1721	OPTN1	657 720 741 783 795 837 870 882 924 957 969 1011 1044 1056 1098 1131 1143 1185 1218 1230 1272 1305 1317 1359 1392 1404 1443 ADDRESS. HEX LOCATION(00002FC6) IN CSECT(I7812) LENGTH(2)
1744	OPTN3	1963 2059 2300 3125 3165 ADDRESS. HEX LOCATION(00002FCA) IN CSECT(I7812) LENGTH(2)
104	PARHARA	3212 3260 ADDRESS. HEX LOCATION(0000196E) IN CSECT(I7812) LENGTH(1) 652 664 694 715 727 748 760 778 790 802 832 844 865 877 889 919 931 952 964 976 1006 1018 1039 1051 1063 1093 1105 1126 1138 1150 1180 1192 1213 1225 1237 1267 1279 1300 1312 1324 1354 1366 1387 1399 1411 1438 1450 1474 ADDRESS. HEX LOCATION(000035AE) IN CSECT(I7812) LENGTH(2)
2628	PASS1	2319 2358 2378 ADDRESS. HEX LOCATION(0000355A) IN CSECT(I7812) LENGTH(2)
2586	PHYSC	2102 2122 2123 2124 2125 2344 2815 2817 2822 ADDRESS. HEX LOCATION(00001800) IN CSECT(I7812) LENGTH(1)
72	PID	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 99 100 101 102 103 104 105 106 107 108 109 110 111 112 113 114 115 3315 ABSOLUTE. HEX VALUE(0000F1F0)
3347	PIDMSG10	3315

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DECLARED	NAME	ATTRIBUTES AND REFERENCES
1838	PREP	ABSOLUTE. HEX VALUE(0000000C) 3270
2539	RDDCB	ADDRESS. HEX LOCATION(0000350A) IN CSECT(I7812) LENGTH(2) 2911 2914
2390	RDID1	ADDRESS. HEX LOCATION(0000340E) IN CSECT(I7812) LENGTH(4) 2345
1834	RESET	ABSOLUTE. HEX VALUE(00000008) 1970 2070 2326
1845	RICB	ABSOLUTE. HEX VALUE(00000013) 3324
1835	RID	ABSOLUTE. HEX VALUE(00000009) 1972 2315
2561	RKDCB	ADDRESS. HEX LOCATION(0000352A) IN CSECT(I7812) LENGTH(2) 2125 2923 2928 2935 2936
2471	RSDCB	ADDRESS. HEX LOCATION(000034AA) IN CSECT(I7812) LENGTH(2) 2099 2102 2122 2341 2344 2902 2907 2939 2944
2819	RTT01	ADDRESS. HEX LOCATION(000036A2) IN CSECT(I7812) LENGTH(4) 2811
1784	SCTID	ADDRESS. HEX LOCATION(00002FD4) IN CSECT(I7812) LENGTH(2) 2107 2109 2131 2346 2348 2350 2478 2490 2568
2596	SCTST	ADDRESS. HEX LOCATION(0000356E) IN CSECT(I7812) LENGTH(2) 2764 2845 2904 2907 2925 2928
2495	SKDCB	ADDRESS. HEX LOCATION(000034CA) IN CSECT(I7812) LENGTH(2) 2760 2936 2941 2944
1836	START	ABSOLUTE. HEX VALUE(0000000A) 3039
2641	STATS	ADDRESS. HEX LOCATION(000035C8) IN CSECT(I7812) LENGTH(2) 2146 2147 2158 2193 2194 2205 2397 2398
107	SUPSTAT	ADDRESS. HEX LOCATION(000019C4) IN CSECT(I7812) LENGTH(1) 3318
2817	TT303	ADDRESS. HEX LOCATION(0000369A) IN CSECT(I7812) LENGTH(6) 2809
2823	TT304	ADDRESS. HEX LOCATION(000036B2) IN CSECT(I7812) LENGTH(4) 2807 2816 2818
2766	TT4Y	ADDRESS. HEX LOCATION(0000366A) IN CSECT(I7812) LENGTH(2) 2762
95	TUMSGWTR	ADDRESS. HEX LOCATION(000018BA) IN CSECT(I7812) LENGTH(1) 3320
79	TUPARM1	ADDRESS. HEX LOCATION(0000189A) IN CSECT(I7812) LENGTH(1) 2116 2167 2335
101	TURESUL	ADDRESS. HEX LOCATION(000018C8) IN CSECT(I7812) LENGTH(1) 1967 1968 2074 2075 2076 2220 2310 2311 2312
1808	TURTN	ADDRESS. HEX LOCATION(00003004) IN CSECT(I7812) LENGTH(2) 2313 2376 2425
77	TUSTATUS	ADDRESS. HEX LOCATION(00001818) IN CSECT(I7812) LENGTH(1) 1961 2057 2298 3325
78	TUWORK	ADDRESS. HEX LOCATION(0000181A) IN CSECT(I7812) LENGTH(1) 3298
1984	T12A	ADDRESS. HEX LOCATION(00003068) IN CSECT(I7812) LENGTH(2) 1974
1989	T12B	ADDRESS. HEX LOCATION(0000306E) IN CSECT(I7812) LENGTH(2) 1976
1991	T12C	ADDRESS. HEX LOCATION(00003072) IN CSECT(I7812) LENGTH(2) 1978
1993	T12D	ADDRESS. HEX LOCATION(00003076) IN CSECT(I7812) LENGTH(2) 1980
1986	T12E	ADDRESS. HEX LOCATION(0000306A) IN CSECT(I7812) LENGTH(4) 1990 1992 1994 1996
1995	T12F	ADDRESS. HEX LOCATION(0000307A) IN CSECT(I7812) LENGTH(2) 1982
1817	T3C02	ADDRESS. HEX LOCATION(0000300C) IN CSECT(I7812) LENGTH(6) 656 686 719 782 794 836 869 881 923 956 968 1010 1043 1055 1097 1130 1142 1184 1217 1229 1271 1304 1316 1358 1391 1403 1442
2421	T51A	ADDRESS. HEX LOCATION(0000345C) IN CSECT(I7812) LENGTH(6) 2347
2423	T51AA	ADDRESS. HEX LOCATION(00003466) IN CSECT(I7812) LENGTH(2) 2333
2354	T51B	ADDRESS. HEX LOCATION(00003390) IN CSECT(I7812) LENGTH(6) 2352 2422
2427	T51BB	ADDRESS. HEX LOCATION(00003472) IN CSECT(I7812) LENGTH(2) 2340
2424	T51CC	ADDRESS. HEX LOCATION(00003468) IN CSECT(I7812) LENGTH(2) 2428
2343	T51E	ADDRESS. HEX LOCATION(00003360) IN CSECT(I7812) LENGTH(4) 2357
2358	T51H	ADDRESS. HEX LOCATION(000033A0) IN CSECT(I7812) LENGTH(6) 2355
2382	T51I	ADDRESS. HEX LOCATION(000033F6) IN CSECT(I7812) LENGTH(6) 2359
2353	T51J	ADDRESS. HEX LOCATION(0000338A) IN CSECT(I7812) LENGTH(6) 2349 2351
2366	T51L	ADDRESS. HEX LOCATION(000033BC) IN CSECT(I7812) LENGTH(6) 2361 2364
2372	T51M	ADDRESS. HEX LOCATION(000033D0) IN CSECT(I7812) LENGTH(6) 2367 2370
2378	T51S	ADDRESS. HEX LOCATION(000033EC) IN CSECT(I7812) LENGTH(6) 2375
2430	T51T	ADDRESS. HEX LOCATION(00003476) IN CSECT(I7812) LENGTH(4) 2318 2377 2388 2420 2426
2309	T51TC	ADDRESS. HEX LOCATION(000032D0) IN CSECT(I7812) LENGTH(6) 2306
2327	T51T1	ADDRESS. HEX LOCATION(00003322) IN CSECT(I7812) LENGTH(4) 2307 2309
2310	T51T2	ADDRESS. HEX LOCATION(000032D6) IN CSECT(I7812) LENGTH(4) 2308
2322	T51U	ADDRESS. HEX LOCATION(0000330A) IN CSECT(I7812) LENGTH(6) 2379
2385	T51W	ADDRESS. HEX LOCATION(00003400) IN CSECT(I7812) LENGTH(6) 2383
2388	T51Y	ADDRESS. HEX LOCATION(0000340A) IN CSECT(I7812) LENGTH(4) 2386
2319	T51YY	ADDRESS. HEX LOCATION(000032F8) IN CSECT(I7812) LENGTH(6) 2317
2416	T510	ADDRESS. HEX LOCATION(00003452) IN CSECT(I7812) LENGTH(4) 2390 2394 2414
2415	T511	ADDRESS. HEX LOCATION(00003450) IN CSECT(I7812) LENGTH(2) 2400

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DECLARED	NAME	ATTRIBUTES AND REFERENCES
2419	T512	ADDRESS. HEX LOCATION(00003456) IN CSECT(I7812) LENGTH(2) 2402
2412	T513	ADDRESS. HEX LOCATION(00003446) IN CSECT(I7812) LENGTH(2) 2404 2406
2410	T514	ADDRESS. HEX LOCATION(00003442) IN CSECT(I7812) LENGTH(2) 2408
2413	T516	ADDRESS. HEX LOCATION(00003448) IN CSECT(I7812) LENGTH(6) 2411
2328	T751	ADDRESS. HEX LOCATION(00003326) IN CSECT(I7812) LENGTH(2) 2329
1961	T7812	ADDRESS. HEX LOCATION(00003014) IN CSECT(I7812) LENGTH(4) 740 752
2072	T784	ADDRESS. HEX LOCATION(000030B2) IN CSECT(I7812) LENGTH(2) 2073
2298	T7851	ADDRESS. HEX LOCATION(000032AC) IN CSECT(I7812) LENGTH(4) 770 857 944 1031 1118 1205 1292 1379
2057	T7884	ADDRESS. HEX LOCATION(0000307E) IN CSECT(I7812) LENGTH(4) 644 707 824 911 998 1085 1172 1259 1346
2180	T84A	ADDRESS. HEX LOCATION(0000322C) IN CSECT(I7812) LENGTH(6) 1430 1466
2218	T84AA	ADDRESS. HEX LOCATION(00003296) IN CSECT(I7812) LENGTH(2) 2130 2132
2208	T84B	ADDRESS. HEX LOCATION(0000327A) IN CSECT(I7812) LENGTH(2) 2080 2089 2091
2219	T84BB	ADDRESS. HEX LOCATION(00003298) IN CSECT(I7812) LENGTH(2) 2206
2157	T84C	ADDRESS. HEX LOCATION(000031F2) IN CSECT(I7812) LENGTH(2) 2223 2225
2151	T84CC	ADDRESS. HEX LOCATION(000031E6) IN CSECT(I7812) LENGTH(2) 2155
2154	T84DD	ADDRESS. HEX LOCATION(000031EC) IN CSECT(I7812) LENGTH(2) 2149
2216	T84E	ADDRESS. HEX LOCATION(00003292) IN CSECT(I7812) LENGTH(2) 2152
2222	T84EE	ADDRESS. HEX LOCATION(000032A4) IN CSECT(I7812) LENGTH(2) 2214
2161	T84F	ADDRESS. HEX LOCATION(000031FE) IN CSECT(I7812) LENGTH(4) 2098 2120
2082	T84FF	ADDRESS. HEX LOCATION(000030D0) IN CSECT(I7812) LENGTH(4) 2145 2159
2201	T84GG	ADDRESS. HEX LOCATION(00003268) IN CSECT(I7812) LENGTH(2) 2078
2178	T84H	ADDRESS. HEX LOCATION(00003228) IN CSECT(I7812) LENGTH(2) 2199
2198	T84HH	ADDRESS. HEX LOCATION(00003262) IN CSECT(I7812) LENGTH(2) 2166
2173	T84J	ADDRESS. HEX LOCATION(00003224) IN CSECT(I7812) LENGTH(4) 2196
2183	T84JJ	ADDRESS. HEX LOCATION(0000323A) IN CSECT(I7812) LENGTH(2) 2171 2179 2184 2208 2221
2121	T84K	ADDRESS. HEX LOCATION(0000316C) IN CSECT(I7812) LENGTH(4) 2112
2209	T84KK	ADDRESS. HEX LOCATION(0000327C) IN CSECT(I7812) LENGTH(4) 2182
2204	T84L	ADDRESS. HEX LOCATION(0000326E) IN CSECT(I7812) LENGTH(2) 2190
2215	T84R	ADDRESS. HEX LOCATION(0000328E) IN CSECT(I7812) LENGTH(4) 2202
2224	T84T	ADDRESS. HEX LOCATION(000032A8) IN CSECT(I7812) LENGTH(2) 2186 2217
2068	T84TC	ADDRESS. HEX LOCATION(000030A2) IN CSECT(I7812) LENGTH(6) 2212
2071	T84T1	ADDRESS. HEX LOCATION(000030AE) IN CSECT(I7812) LENGTH(4) 2065
2069	T84T2	ADDRESS. HEX LOCATION(000030A8) IN CSECT(I7812) LENGTH(4) 2066 2068
2186	T84WR	ADDRESS. HEX LOCATION(0000323E) IN CSECT(I7812) LENGTH(4) 2067
2092	T84Z	ADDRESS. HEX LOCATION(000030F4) IN CSECT(I7812) LENGTH(6) 2136 2140
2111	T842	ADDRESS. HEX LOCATION(00003142) IN CSECT(I7812) LENGTH(6) 2081
2115	T843	ADDRESS. HEX LOCATION(00003154) IN CSECT(I7812) LENGTH(6) 2106 2108
2101	T844	ADDRESS. HEX LOCATION(0000311E) IN CSECT(I7812) LENGTH(4) 2110
2528	VRDCB	ADDRESS. HEX LOCATION(000034FA) IN CSECT(I7812) LENGTH(2) 2114
2550	WKDCB	ADDRESS. HEX LOCATION(0000351A) IN CSECT(I7812) LENGTH(2) 2917
2517	WRDCB	ADDRESS. HEX LOCATION(000034EA) IN CSECT(I7812) LENGTH(2) 2124 2931 2932 2947 2948
2589	WRSID	ADDRESS. HEX LOCATION(00003560) IN CSECT(I7812) LENGTH(2) 2920
2461	WSDCB	ADDRESS. HEX LOCATION(0000349A) IN CSECT(I7812) LENGTH(2) 2468 2557 2765 2846 2948 2952
2593	WSIDT	ADDRESS. HEX LOCATION(00003568) IN CSECT(I7812) LENGTH(2) 2123 2951 2952 2954 2955
1760	XE	ABSOLUTE. HEX VALUE(00000024) 2133 2134 2135 2137 2138 2139 2761 2932 2955
1758	XI	ABSOLUTE. HEX VALUE(00000022) 2126 3132 3194
3013	XIO	ADDRESS. HEX LOCATION(00003796) IN CSECT(I7812) LENGTH(4) 3038 3179 2807 2900 2908 2915 2918 2921 2929 2933 2937
3194	XIOCK	ADDRESS. HEX LOCATION(0000385E) IN CSECT(I7812) LENGTH(2) 3048
3201	XIOCO	ADDRESS. HEX LOCATION(00003870) IN CSECT(I7812) LENGTH(2) 3199
3018	XIOCS	ADDRESS. HEX LOCATION(000037A0) IN CSECT(I7812) LENGTH(6) 2084 3210
3203	XIOCV	ADDRESS. HEX LOCATION(00003874) IN CSECT(I7812) LENGTH(2) 3197
3212	XIOCY	ADDRESS. HEX LOCATION(0000388E) IN CSECT(I7812) LENGTH(4) 3197
3087	XIOER	ADDRESS. HEX LOCATION(000037FC) IN CSECT(I7812) LENGTH(2) 3204
3022	XIO1	ADDRESS. HEX LOCATION(000037B0) IN CSECT(I7812) LENGTH(4) 3218
3035	XIO2	ADDRESS. HEX LOCATION(000037D6) IN CSECT(I7812) LENGTH(2) 3014

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DECLARED	NAME	ATTRIBUTES AND REFERENCES
3047	XIO8	3021 ADDRESS. HEX LOCATION(000037EA) IN CSECT(I7812) LENGTH(2)
65	XTRNL	3052 ABSOLUTE. HEX VALUE(00000001) 682 700 733 766 814 820 901 907 988 994 1075 1081 1162 1168 1249 1255 1336 1342
2571	ZER00	1420 1426 1462 1480 1486 ADDRESS. HEX LOCATION(0000353A) IN CSECT(I7812) LENGTH(2) 2107 2131 2346 2376 2808

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