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LOCTR OBJECT TEXT      STMT SOURCE STATEMENT      COPYRIGHT IBM CORP 1976
3      COPY LOG7800      ** MAP EC HISTORY **
4      *****
5      *
6      *          *** PREREQUISITES ***
7      *
8      *          NONE
9      *
10     *****
11     *
12     *          *** MODIFICATIONTS ***
13     *
14     *          CHANGES MADE TO MEET PROGAM REQUIREMENTS
15     *
16     *****
17     *
18     *          *** REA'S INCORPORATED ***
19     *
20     *          NONE
21     *
22     *****
23     *
24     *          *** SPECIAL INSTRUCTIONS ***
25     *
26     *          NONE
27     *
28     *****
29     *
30     *          *** E. C. HISTORY ***
31     *
32     *          DATE 17DEC76 DATE 04MAR77 DATE 10JUN77 DATE 01MAR78
33     *          E.C. 578486 E.C. 578638 E.C. 578625 E.C. 755285
34     *
35     *****
36     17800 START X'12500' START ADDRESS OF ALL 'I' TYPE PROG
37     @QUES EQU X'0100' EQUATED VALUE FOR MDI STATEMENT
38     @FIXT EQU X'0101' EQUATED VALUE FOR MDI STATEMENT
39     @STOP EQU X'0102' EQUATED VALUE FOR MDI STATEMENT
40     @GOTO EQU X'0200' EQUATED VALUE FOR MDI STATEMENT
41     @CALL EQU X'0201' EQUATED VALUE FOR MDI STATEMENT
42     @INPT EQU X'0300' EQUATED VALUE FOR MDI STATEMENT
43     @QUXX EQU X'0400' EQUATED VALUE FOR MDI STATEMENT
44     @TUXX EQU X'0500' EQUATED VALUE FOR MDI STATEMENT
45     @NVLD EQU X'0600' EQUATED VALUE FOR MDI STATEMENT
46     @EQUATE EQU X'0000' EQUATE FOR EQUAL
47     @EQUATE FOR NOT EQUAL
48     @NE EQU X'0004' EQUATE FOR NOT EQUAL
49     @HI EQU X'0008' EQUATE FOR HIGH
50     @NH EQU X'000C' EQUATE FOR NOT HIGH
51     @LO EQU X'0010' EQUATE FOR LOW
52     @NL EQU X'0014' EQUATE FOR NOT LOW
53     @LT EQU X'0010' EQUATE FOR LESS THAN
54     @LE EQU X'000C' EQUATE FOR LESS THAN OR EQUAL TO
55     @GT EQU X'0008' EQUATE FOR GREATER THAN
56     @GE EQU X'0014' EQUATE FOR GREATER THAN OR EQUAL TO
57     @ON EQU X'0202' EQUATE FOR ON
58     @OF EQU X'0204' EQUATE FOR OFF
59     @MIXED EQU X'0000' EQUATE FOR EBCDIC DATA TRANSFER
60     @EBC EQU X'0000' EQUATE FOR EBCDIC DATA TRANSFER
61     @HEX EQU X'0001' EQUATE FOR HEX DATA TRANSFER
62     @XTRNL EQU X'0001' EQUATE FOR EXTERNAL REFERENCE
63     @INTRNL EQU X'0000' EQUATE FOR INTERNAL REFERENCE
64     @PARM EQU X'0000' EQUATE INDICATING PARAMETER
65     @DA EQU X'0001' EQUATE FOR DEVICE ADDRESS
66     @UA EQU X'0002' EQUATE FOR UNIT ADDRESS
67     @DUMMY EQU X'0000' DUMMY EQUATE
68     @PID EQU *-X'0D00' ADDRESS OF MDI HEADER
69     @PID EQU *-X'22C0' ADDRESS OF PROCESSOR TYPE FIELD
70     @TYPE EQU *-X'0000' ADDRESS OF DECIMAL STEP NUMBER
71     @OPW1 EQU PID+X'000C' ADDRESS OF OPTION WORD ONE
72     @OPW2 EQU PID+X'0010' ADDRESS OF OPTION WORD TWO
73     @TUSTATUS EQU PID+X'0018' ADDRESS OF TU STATUS WORD
74     @TUWOPK EQU PID+X'001A' ADDRESS OF TU WOPK AREA
75     @TUPARM1 EQU PID+X'009A' ADDRESS OF PARM 1 POINTER
76     @TUPARM2 EQU PID+X'009C' ADDRESS OF PARM 2 POINTER
77     @TUPARM3 EQU PID+X'009E' ADDRESS OF PARM 3 POINTER
78     @TUPARM4 EQU PID+X'00A0' ADDRESS OF PARM 4 POINTER
79     @TUPARM5 EQU PID+X'00A2' ADDRESS OF PARM 5 POINTER
80     @TUPARM6 EQU PID+X'00A4' ADDRESS OF PARM 6 POINTER
81     @TUPARM7 EQU PID+X'00A6' ADDRESS OF PARM 7 POINTER
82     @TUPARM8 EQU PID+X'00A8' ADDRESS OF PARM 8 POINTER
83     @TUPARM9 EQU PID+X'00AA' ADDRESS OF PARM 9 POINTER
84     @TUPARM10 EQU PID+X'00AC' ADDRESS OF PARM 10 POINTER
85     @TUPARM11 EQU PID+X'00AE' ADDRESS OF PARM 11 POINTER
86     @TUPARM12 EQU PID+X'00B0' ADDRESS OF PARM 12 POINTER
87     @TUPARM13 EQU PID+X'00B2' ADDRESS OF PARM 13 POINTER
88     @TUPARM14 EQU PID+X'00B4' ADDRESS OF PARM 14 POINTER
89     @TUPARM15 EQU PID+X'00B6' ADDRESS OF PARM 15 POINTER
90     @TUPARM16 EQU PID+X'00B8' ADDRESS OF PARM 16 POINTER
91     @TUMSGWTR EQU PID+X'00BA' ADDRESS OF -> TO COMMON MSG WRITER
92     @TUA EQU PID+X'00BE' ADDRESS OF UNIT ADDRESS IN EBC
93     @TUDA EQU PID+X'00C0' ADDRESS OF DEVICE ADDRESS IN EBC
94     @TUBUF EQU PID+X'00C2' ADDRESS OF LAST USED WORD IN MAP
95     @TULAST EQU PID+X'00C4' ADDRESS OF LAST ADDRESSABLE WORD
96     @TURESUL EQU PID+X'00C6' ADDRESS OF LENGTH OF TU RESULTS
97     @TURESUL EQU PID+X'00C8' ADDRESS OF TU RESULTS FIELD
98     @MAPNAME EQU PID+X'00FC' ADDRESS OF MAP NAME FIELD IN HEX
99     @TUINPT EQU PID+X'0148' ADDRESS OF SINPT DATA
100    @PARMARA EQU PID+X'016E' ADDRESS OF SINPT INPUT AREA
101    @DCADD1 EQU PID+X'01B8' MDI POINTER
102    @DCADD2 EQU PID+X'01BA' MDI POINTER
103    @SUPSTAT EQU PID+X'01C4' ADDRESS OF MDI STATUS
104    @DEVADD EQU PID+X'01D0' ADDRESS OF DEVICE ADDRESS TABLE 0
105    @DEVADD1 EQU PID+X'01DA' ADDRESS OF DEVICE ADDRESS TABLE 1
106    @DEVADD2 EQU PID+X'01E4' ADDRESS OF DEVICE ADDRESS TABLE 2
107    @DEVADD3 EQU PID+X'01EE' ADDRESS OF DEVICE ADDRESS TABLE 3
108    @DEVADD4 EQU PID+X'01F8' ADDRESS OF DEVICE ADDRESS TABLE 4
109    @DEVADD5 EQU PID+X'0202' ADDRESS OF DEVICE ADDRESS TABLE 5
110    @DEVADD6 EQU PID+X'020C' ADDRESS OF DEVICE ADDRESS TABLE 6
111    @DEVADD7 EQU PID+X'0216' ADDRESS OF DEVICE ADDRESS TABLE 7
112    PRINT OFF

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LOCTR OBJECT TEXT      STMT SOURCE STATEMENT      COPYRIGHT IBM CORP 1976
002500 2AAF          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 TUS AND TO PASS TO THE OPERATOR
205      *          THE INDICATED MESSAGE(S). THESE 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 FOLLOWS
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 CONTAINS THE REQUIRED INFORMATION TO EXECUTE
218      *          THE APPROPRIATE RULE UNDER MDI. EACH RULE HAS ITS OWN
219      *          UNIQUELY DEFINED AREA INDICATED BELOW. END OF TABLE IS
220      *          INDICATED WITH A X'0000' FOR THE RULE EQUATE.
221      *
222      *          $QUES
223      *          A) RULE EQUATE X'0100'
224      *          B) ADDRESS OF THE YES LEG RULE
225      *
226      *          $FIXT
227      *          A) RULE EQUATE X'0101'
228      *          B) ADDRESS OF MESSAGE TO PRINT
229      *
230      *          $STOP
231      *          A) RULE EQUATE X'0102'
232      *          B) ADDRESS OF MESSAGE
233      *
234      *          $GOTO
235      *          A) RULE EQUATE X'0200'
236      *          B) ADDRESS OF MESSAGE
237      *          C) NAME OF MAP TO GO TO
238      *          D) ENTRY POINT WITHIN GO TO MAP TO USE
239      *          E) INDICATOR FOR EXTERNAL OR INTERNAL REFERENCE
240      *
241      *          $CALL
242      *          A) RULE EQUATE X'0201'
243      *          B) ADDRESS OF MESSAGE
244      *          C) NAME OF MAP TO CALL
245      *          D) ENTRY POINT WITHIN CALLED MAP TO USE
246      *          E) INDICATOR FOR EXTERNAL OR INTERNAL REFERENCE
247      *
248      *          $INPT
249      *          A) RULE EQUATE X'0300'
250      *          B) INPUT TYPE (EBCDIC OR HEX)
251      *          C) ADDRESS OF YES LEG RULE
252      *          D) DESTINATION LOCATION OF INPUT DATA
253      *          E) LENGTH OF INPUT DATA
254      *          F) LOWER LIMIT OF GOOD DATA
255      *          G) HIGHER LIMIT OF GOOD DATA
256      *
257      *          $QUXX
258      *          A) RULE EQUATE X'0400'
259      *          B) ADDRESS OF YES LEG RULE
260      *          C) TU BRANCH TO ADDRESS (INITIAL)
261      *          D) TU BRANCH TO ADDRESS (SECONDARY)
262      *          E) LENGTH OF PARAMETER IN BYTES
263      *          F) PARAMETER TO PASS TO TU
264      *          G) STORE ADDRESS FOR FIRST 8 WORDS OF PARAMETER
265      *
266      *          $NVLD
267      *          A) RULE EQUATE X'0600'
268      *
269      *          ENTRY POINT TABLE
270      *          THIS TABLE CONTAINS THE ENTRY POINTS WITHIN THE MAP THAT
271      *          THE MAP CAN BE ENTERED FROM THESE ENTRY POINTS ARE
272      *          REFERENCED BY NAME AND ADDRESS. ENTRIES ARE AS FOLLOWS:
273      *
274      *          A) NAME OF ENTRY POINT
275      *          B) ADDRESS OF ENTRY POINT RULE TABLE
276      *
277      *          THE ENTRY POINT TABLE END IS INDICATED BY A X'0000'
278      *
279      *          MESSAGE TABLE
280      *          THIS TABLE CONTAINS THE MESSAGE PASSED TO THE OPERATOR
281      *          VIA THE MDI SUPERVISOR. THE TABLE IS AS FOLLOWS:
282      *
283      *          A) EQUATE FOR START OF MESSAGE BLOCK
284      *          B) NUMBER OF LINES OF MESSAGE
285      *          C) LENGTH OF FOLLOWING LINE
286      *          D) FIRST LINE OF MESSAGE
287      *          E) LENGTH OF FOLLOWING LINE
288      *          F) SECOND LINE OF MESSAGE
289      *          G) ETC.
290      *
291      *          *****
292      *          *****
293      *          *****
294      *          *****
295      *          *****
296      *          *****
297      *          *****
298      *          *****
299      *          *****
300      *          *****
301      *          *****
302      *          *****
303      *          *****
304      *          *****
305      *          *****

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LOCTR	OBJECT TEXT	STMT	SOURCE STATEMENT	COPYRIGHT IBM CORP 1976
002502	2628	308	*****	
002504	0001	309	*****	
002506	263E	310	**	
002508	0002	311	**	
000002		312	STEP AND RULE ADDRESS TABLE	
00250A	2650	313	*****	
00250C	0003	314	*****	
00250E	265C	315	*****	
002510	0004	316	*****	
000004	2668	317	*****	
002512	0005	318	*****	
000005	2680	319	*****	
002514	0006	320	*****	
000006	2692	321	*****	
002516	0007	322	*****	
000007	26A4	323	*****	
002518	0008	324	*****	
000008	26B6	325	*****	
00251A	0009	326	*****	
000009	26CE	327	*****	
00251C	0010	328	*****	
00000A	26DA	329	*****	
00251E	0011	330	*****	
00000B	26E6	331	*****	
002520	0012	332	*****	
00000C	26F2	333	*****	
002522	0013	334	*****	
00000D	26FE	335	*****	
002524	0014	336	*****	
00000E	270A	337	*****	
002526	0015	338	*****	
00000F	2720	339	*****	
002528	0016	340	*****	
000010	272C	341	*****	
00252A	0017	342	*****	
000011	2742	343	*****	
00252C	0018	344	*****	
000012	274E	345	*****	
00252E	0019	346	*****	
000013	2764	347	*****	
002530	0020	348	*****	
000014	2770	349	*****	
002532	0021	350	*****	
000015	2786	351	*****	
002534	0022	352	*****	
000016	2798	353	*****	
002536	0023	354	*****	
000017	27A4	355	*****	
002538	0024	356	*****	
000018	27B0	357	*****	
00253A	0025	358	*****	
000019	27C6	359	*****	
00253C	0026	360	*****	
00001A	27D8	361	*****	
00253E	0027	362	*****	
00001B	27E4	363	*****	
002540	0028	364	*****	
00001C	27F0	365	*****	
002542	0029	366	*****	
00001D	2806	367	*****	
002544	0030	368	*****	
00001E	2818	369	*****	
002546	0031	370	*****	
00001F	2824	371	*****	
002548	0032	372	*****	
000020	2830	373	*****	
00254A	0033	374	*****	
000021	2846	375	*****	
00254C	0034	376	*****	
000022	2852	377	*****	
00254E	0035	378	*****	
000023	2868	379	*****	
002550	0036	380	*****	

LOCTR	OBJECT TEXT	STMT	SOURCE STATEMENT	COPYRIGHT IBM CORP 1976
000024		422	EQN00036 EQU 0036	
002592	2874	423	DC AL2(N00037)	
002594	0037	424	DC XL2'0037'	
000025		425	EQN00037 EQU 0037	
002596	288A	426	DC AL2(N00038)	
002598	0038	427	DC XL2'0038'	
000026		428	EQN00038 EQU 0038	
00259A	2896	429	DC AL2(N00039)	
00259C	0039	430	DC XL2'0039'	
000027		431	EQN00039 EQU 0039	
00259E	28A8	432	DC AL2(N00040)	
0025A0	0040	433	DC XL2'0040'	
000028		434	EQN00040 EQU 0040	
0025A2	28B4	435	DC AL2(N00041)	
0025A4	0041	436	DC XL2'0041'	
000029		437	EQN00041 EQU 0041	
0025A6	28CA	438	DC AL2(N00042)	
0025A8	0042	439	DC XL2'0042'	
00002A		440	EQN00042 EQU 0042	
0025AA	28D6	441	DC AL2(N00043)	
0025AC	0043	442	DC XL2'0043'	
00002B		443	EQN00043 EQU 0043	
0025AE	28E8	444	DC AL2(N00044)	
0025B0	0044	445	DC XL2'0044'	
00002C		446	EQN00044 EQU 0044	
0025B2	28EA	447	DC AL2(N00045)	
0025B4	0045	448	DC XL2'0045'	
00002D		449	EQN00045 EQU 0045	
0025B6	2900	450	DC AL2(N00046)	
0025B8	0046	451	DC XL2'0046'	
00002E		452	EQN00046 EQU 0046	
0025BA	290C	453	DC AL2(N00047)	
0025BC	0047	454	DC XL2'0047'	
00002F		455	EQN00047 EQU 0047	
0025BE	2922	456	DC AL2(N00048)	
0025C0	0048	457	DC XL2'0048'	
000030		458	EQN00048 EQU 0048	
0025C2	2934	459	DC AL2(N00049)	
0025C4	0049	460	DC XL2'0049'	
000031		461	EQN00049 EQU 0049	
0025C6	2940	462	DC AL2(N00050)	
0025C8	0050	463	DC XL2'0050'	
000032		464	EQN00050 EQU 0050	
0025CA	294C	465	DC AL2(N00051)	
0025CC	0051	466	DC XL2'0051'	
000033		467	EQN00051 EQU 0051	
0025CE	2962	468	DC AL2(N00052)	
0025D0	0052	469	DC XL2'0052'	
000034		470	EQN00052 EQU 0052	
0025D2	2974	471	DC AL2(N00053)	
0025D4	0053	472	DC XL2'0053'	
000035		473	EQN00053 EQU 0053	
0025D6	2980	474	DC AL2(N00054)	
0025D8	0054	475	DC XL2'0054'	
000036		476	EQN00054 EQU 0054	
0025DA	298C	477	DC AL2(N00055)	
0025DC	0055	478	DC XL2'0055'	
000037		479	EQN00055 EQU 0055	
0025DE	29A2	480	DC AL2(N00056)	
0025E0	0056	481	DC XL2'0056'	
000038		482	EQN00056 EQU 0056	
0025E2	29B4	483	DC AL2(N00057)	
0025E4	0057	484	DC XL2'0057'	
000039		485	EQN00057 EQU 0057	
0025E6	29C6	486	DC AL2(N00058)	
0025E8	0058	487	DC XL2'0058'	
00003A		488	EQN00058 EQU 0058	
0025EA	29D2	489	DC AL2(N00059)	
0025EC	0059	490	DC XL2'0059'	
00003B		491	EQN00059 EQU 0059	
0025EE	29DE	492	DC AL2(N00060)	
0025F0	0060	493	DC XL2'0060'	
00003C		494	EQN00060 EQU 0060	
0025F2	29EA	495	DC AL2(N00061)	
0025F4	0061	496	DC XL2'0061'	
00003D		497	EQN00061 EQU 0061	
0025F6	2A00	498	DC AL2(N00062)	
0025F8	0062	499	DC XL2'0062'	
00003E		500	EQN00062 EQU 0062	
0025FA	2A12	501	DC AL2(N00063)	
0025FC	0063	502	DC XL2'0063'	
00003F		503	EQN00063 EQU 0063	
0025FE	2A24	504	DC AL2(N00064)	
002600	0064	505	DC XL2'0064'	
000040		506	EQN00064 EQU 0064	
002602	2A30	507	DC AL2(N00065)	
002604	0065	508	DC XL2'0065'	
000041		509	EQN00065 EQU 0065	
002606	2A3C	510	DC AL2(N00066)	
002608	0066	511	DC XL2'0066'	
000042		512	EQN00066 EQU 0066	
00260A	2A48	513	DC AL2(N00067)	
00260C	0067	514	DC XL2'0067'	
000043		515	EQN00067 EQU 0067	
00260E	2A5E	516	DC AL2(N00068)	
002610	0068	517	DC XL2'0068'	
000044		518	EQN00068 EQU 0068	
002612	2A6A	519	DC AL2(N00069)	
002614	0069	520	DC XL2'0069'	
000045		521	EQN00069 EQU 0069	
002616	2A7C	522	DC AL2(N00070)	
002618	0070	523	DC XL2'0070'	
000046		524	EQN00070 EQU 0070	
00261A	2A7E	525	DC AL2(N00071)	
00261C	0071	526	DC XL2'0071'	
000047		527	EQN00071 EQU 0071	
00261E	2A94	528	DC AL2(N00072)	
002620	0072	529	DC XL2'0072'	
000048		530	EQN00072 EQU 0072	
002622	2AA0	531	DC AL2(N00073)	
002624	0073	532	DC XL2'0073'	
000049		533	EQN00073 EQU 0073	
002626	0000	534	DC AL2(DUMMY)	
		535	*****	

Table with columns: LOCTR, OBJECT TEXT, STMT SOURCE STATEMENT, COPYRIGHT IBM CORP 1976. Contains source code for channel interface test, including rule information and various DC and STUXX statements.

Table with columns: LOCTR, OBJECT TEXT, STMT SOURCE STATEMENT, COPYRIGHT IBM CORP 1976. Contains source code for channel interface test, including SCALL, DC, and STUXX statements.

I7800 --- CHANNEL INTERFACE TEST P/N=1635026 EC=755285 PAGE 04
 LOCTR OBJECT TEXT STMT SOURCE STATEMENT COPYRIGHT IBM CORP 1976

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0027BA 0708          764+      DC X'0708'
                   765+      ALIGN WORD
0027BC 0006          766+      DC AL2(6)
0027BE F6F0F2F2F2F2 767+      DC C'602222'
                   768+      ALIGN WORD
0027C4 196E          769+      DC AL2(PARMARA)
0027C6 0500          770 N00026 STUXX T3C02,02,0508,EQ,QT=(Q00120),YES=N00028,ST=(S00029)
0027C8 27E4          771+ N00026 DC A(@TUXX)
0027CA 2EBA          772+      DC AL2(N00028)
0027CC 0000          773+      DC A(T3C02)
0027CE 0002          774+      DC AL2(EQ)
0027D0 0508          775+      DC AL2(02)
                   776+      DC X'0508'
0027D2 0000          777+      ALIGN WORD
0027D4 C1C1          778+      DC AL2(0)
                   779+      DC C'AA'
0027D6 196E          780+      ALIGN WORD
                   781+      DC AL2(PARMARA)
0027D8 0201          782 N00027 SCALL TYPE=XTRNL,MAP=7807,EP=A,FT=(F00014),GTO=((7807,A))
0027DA 2C72          783+ N00027 DC A(@CALL)
0027DC F7F8F0F7      784+      DC A(F00014)
0027DE C140          785+      DC CL4'7807'
0027E2 0001          786+      DC CL2'A'
                   787+      DC AL2(XTRNL)
0027E4 0201          788 N00028 SCALL TYPE=XTRNL,MAP=7807,EP=A,FT=(F00126),GTO=((7807,A))
0027E6 2C72          789+ N00028 DC A(@CALL)
0027E8 F7F8F0F7      790+      DC A(F00126)
0027EA C140          791+      DC CL4'7807'
0027EC C140          792+      DC CL2'A'
0027EE 0001          793+      DC AL2(XTRNL)
0027F0 0500          794 N00029 STUXX T7800,02,0708,EQ,PLNG=6,PARM=60FFFE,QT=(Q00131),
0027F2 2830          795+ N00029 DC A(@TUXX)
0027F4 2EC2          796+      DC AL2(N00033)
0027F6 0000          797+      DC A(T7800)
0027F8 0002          798+      DC AL2(EQ)
0027FA 0708          799+      DC AL2(02)
                   800+      DC X'0708'
0027FC 0006          801+      ALIGN WORD
0027FE F6F0C6C6C6C5 802+      DC AL2(6)
                   803+      DC C'60FFFE'
002804 196E          804+      ALIGN WORD
                   805+      DC AL2(PARMARA)
002806 0500          806 N00030 STUXX T3C02,02,0508,EQ,QT=(Q00134),YES=N00032,ST=(S00029)
002808 2824          807+ N00030 DC A(@TUXX)
00280A 2EBA          808+      DC AL2(N00032)
00280C 0000          809+      DC A(T3C02)
00280E 0002          810+      DC AL2(EQ)
002810 0508          811+      DC AL2(02)
                   812+      DC X'0508'
002812 0000          813+      ALIGN WORD
002814 C1C1          814+      DC AL2(0)
                   815+      DC C'AA'
002816 196E          816+      ALIGN WORD
                   817+      DC AL2(PARMARA)
002818 0201          818 N00031 SCALL TYPE=XTRNL,MAP=7807,EP=A,FT=(F00014),GTO=((7807,A))
00281A 2C72          819+ N00031 DC A(@CALL)
00281C F7F8F0F7      820+      DC A(F00014)
00281E C140          821+      DC CL4'7807'
002820 0001          822+      DC CL2'A'
                   823+      DC AL2(XTRNL)
002824 0201          824 N00032 SCALL TYPE=XTRNL,MAP=7807,EP=A,FT=(F00140),GTO=((7807,A))
002826 2C72          825+ N00032 DC A(@CALL)
002828 F7F8F0F7      826+      DC A(F00140)
00282A C140          827+      DC CL4'7807'
00282C 0001          828+      DC CL2'A'
                   829+      DC AL2(XTRNL)
002830 0500          830 N00033 STUXX T7800,02,0308,EQ,PLNG=6,PARM=650000,QT=(Q00145),
002832 2852          831+ N00033 DC A(@TUXX)
002834 2EC2          832+      DC AL2(N00035)
002836 0000          833+      DC A(T7800)
002838 0002          834+      DC AL2(EQ)
00283A 0308          835+      DC AL2(02)
                   836+      DC X'0308'
00283C 0006          837+      ALIGN WORD
00283E F6F5F0F0F0F0 838+      DC AL2(6)
                   839+      DC C'650000'
002844 196E          840+      ALIGN WORD
                   841+      DC AL2(PARMARA)
002846 0201          842 N00034 SCALL TYPE=XTRNL,MAP=7807,EP=A,FT=(F00014),GTO=((7807,A))
002848 2C72          843+ N00034 DC A(@CALL)
00284A F7F8F0F7      844+      DC A(F00014)
00284C C140          845+      DC CL4'7807'
00284E 0001          846+      DC CL2'A'
                   847+      DC AL2(XTRNL)
002852 0500          848 N00035 STUXX T7800,02,0708,EQ,PLNG=6,PARM=400000,QT=(Q00152),
002854 2B74          849+ N00035 DC A(@TUXX)
002856 2EC2          850+      DC AL2(N00037)
002858 0000          851+      DC A(T7800)
00285A 0002          852+      DC AL2(EQ)
00285C 0708          853+      DC AL2(02)
                   854+      DC X'0708'
00285E 0006          855+      ALIGN WORD
002860 F4F0F0F0F0F0 856+      DC AL2(6)
                   857+      DC C'400000'
002866 196E          858+      ALIGN WORD
                   859+      DC AL2(PARMARA)
002868 0201          860 N00036 SCALL TYPE=XTRNL,MAP=7807,EP=A,FT=(F00014),GTO=((7807,A))
00286A 2C72          861+ N00036 DC A(@CALL)
00286C F7F8F0F7      862+      DC A(F00014)
00286E C140          863+      DC CL4'7807'
002870 0001          864+      DC CL2'A'
                   865+      DC AL2(XTRNL)
002874 0500          866 N00037 STUXX T7800,02,0708,EQ,PLNG=6,PARM=400100,QT=(Q00159),
002876 2896          867+ N00037 DC A(@TUXX)
002878 2EC2          868+      DC AL2(N00039)
00287A 0000          869+      DC A(T7800)
00287C 0002          870+      DC AL2(EQ)
00287E 0708          871+      DC AL2(02)
                   872+      DC X'0708'
002880 0006          873+      ALIGN WORD
002882 F4F0F0F1F0F0 874+      DC AL2(6)
                   875+      DC C'400100'
002888 196E          876+      ALIGN WORD
                   877+      DC AL2(PARMARA)

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 LOCTR OBJECT TEXT STMT SOURCE STATEMENT COPYRIGHT IBM CORP 1976

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00288A 0201          878 N00038 SCALL TYPE=XTRNL,MAP=7807,EP=A,FT=(F00014),GTO=((7807,A))
00288C 2C72          879+ N00038 DC A(@CALL)
00288E F7F8F0F7      880+      DC A(F00014)
002890 C140          881+      DC CL4'7807'
002892 C140          882+      DC CL2'A'
002894 0001          883+      DC AL2(XTRNL)
002896 0500          884 N00039 STUXX T3C02,02,0708,EQ,QT=(Q00165),YES=N00041,ST=(S00029)
002898 28B4          885+ N00039 DC A(@TUXX)
00289A 2EBA          886+      DC AL2(N00041)
00289C 0000          887+      DC A(T3C02)
00289E 0002          888+      DC AL2(EQ)
0028A0 0708          889+      DC AL2(02)
                   890+      DC X'0708'
0028A2 0000          891+      ALIGN WORD
0028A4 C1C1          892+      DC AL2(0)
                   893+      DC C'AA'
0028A6 196E          894+      ALIGN WORD
                   895+      DC AL2(PARMARA)
0028A8 0201          896 N00040 SCALL TYPE=XTRNL,MAP=7807,EP=A,FT=(F00014),GTO=((7807,A))
0028AA 2C72          897+ N00040 DC A(@CALL)
0028AC F7F8F0F7      898+      DC A(F00014)
0028AE C140          899+      DC CL4'7807'
0028B0 C140          900+      DC CL2'A'
0028B2 0001          901+      DC AL2(XTRNL)
0028B4 0500          902 N00041 STUXX T7800,02,0708,EQ,PLNG=6,PARM=6F0000,QT=(Q00172),
0028B6 28D6          903+ N00041 DC A(@TUXX)
0028B8 2EC2          904+      DC AL2(N00043)
0028BA 0000          905+      DC A(T7800)
0028BC 0002          906+      DC AL2(EQ)
0028BE 0708          907+      DC AL2(02)
                   908+      DC X'0708'
0028C0 0006          909+      ALIGN WORD
0028C2 F6C6F0F0F0F0 910+      DC AL2(6)
                   911+      DC C'6F0000'
0028C8 196E          912+      ALIGN WORD
                   913+      DC AL2(PARMARA)
0028CA 0201          914 N00042 SCALL TYPE=XTRNL,MAP=7807,EP=A,FT=(F00014),GTO=((7807,A))
0028CC 2C72          915+ N00042 DC A(@CALL)
0028CE F7F8F0F7      916+      DC A(F00014)
0028D0 C140          917+      DC CL4'7807'
0028D2 C140          918+      DC CL2'A'
0028D4 0001          919+      DC AL2(XTRNL)
0028D6 0500          920 N00043 STUXX T7805,02,0000,EQ,,YES=N00045,CT=(C00178)
0028D8 28EA          921+ N00043 DC A(@TUXX)
0028DA 2F34          922+      DC AL2(N00045)
0028DC 0000          923+      DC A(T7805)
0028DE 0002          924+      DC AL2(EQ)
0028E0 0000          925+      DC AL2(02)
                   926+      DC X'0000'
0028E2 0000          927+      ALIGN WORD
0028E4 C1C1          928+      DC AL2(0)
                   929+      DC C'AA'
0028E6 196E          930+      ALIGN WORD
                   931+      DC AL2(PARMARA)
0028E8 0600          932 N00044 SNVLD FT=(F00180)
0028EA 0500          933+ N00044 DC A(@NVLD)
0028EC 290C          934 N00045 STUXX T7800,02,0708,EQ,PLNG=6,PARM=6F0000,QT=(Q00183),
0028EE 2EC2          935+ N00045 DC A(@TUXX)
0028F0 0000          936+      DC AL2(N00047)
0028F2 0002          937+      DC A(T7800)
0028F4 0708          938+      DC AL2(EQ)
                   939+      DC AL2(02)
                   940+      DC X'0708'
0028F6 0006          941+      ALIGN WORD
0028F8 F6C6F0F0F0F0 942+      DC AL2(6)
                   943+      DC C'6F0000'
0028FE 196E          944+      ALIGN WORD
                   945+      DC AL2(PARMARA)
002900 0201          946 N00046 SCALL TYPE=XTRNL,MAP=7807,EP=A,FT=(F00014),GTO=((7807,A))
002902 2C72          947+ N00046 DC A(@CALL)
002904 F7F8F0F7      948+      DC A(F00014)
002906 C140          949+      DC CL4'7807'
002908 0001          950+      DC CL2'A'
                   951+      DC AL2(XTRNL)
00290C 0500          952 N00047 STUXX T7800,02,0708,EQ,PLNG=6,PARM=210000,QT=(Q00191),
00290E 294C          953+ N00047 DC A(@TUXX)
002910 2EC2          954+      DC AL2(N00051)
002912 0000          955+      DC A(T7800)
002914 0002          956+      DC AL2(EQ)
002916 0708          957+      DC AL2(02)
                   958+      DC X'0708'
002918 0006          959+      ALIGN WORD
00291A F2F1F0F0F0F0 960+      DC AL2(6)
                   961+      DC C'210000'
002920 196E          962+      ALIGN WORD
                   963+      DC AL2(PARMARA)
002922 0500          964 N00048 STUXX T3C02,02,0508,EQ,,QT=(Q00194),YES=N00050,ST=(S00029)
002924 2940          965+ N00048 DC A(@TUXX)
002926 2EBA          966+      DC AL2(N00050)
002928 0000          967+      DC A(T3C02)
00292A 0002          968+      DC AL2(EQ)
00292C 0508          969+      DC AL2(02)
                   970+      DC X'0508'
00292E 0000          971+      ALIGN WORD
002930 C1C1          972+      DC AL2(0)
                   973+      DC C'AA'
002932 196E          974+      ALIGN WORD
                   975+      DC AL2(PARMARA)
002934 0201          976 N00049 SCALL TYPE=XTRNL,MAP=7807,EP=A,FT=(F00014),GTO=((7807,A))
002936 2C72          977+ N00049 DC A(@CALL)
002938 F7F8F0F7      978+      DC A(F00014)
00293A C140          979+      DC CL4'7807'
00293C 0001          980+      DC CL2'A'
                   981+      DC AL2(XTRNL)
002940 0201          982 N00050 SCALL TYPE=XTRNL,MAP=7807,EP=A,FT=(F00202),GTO=((7807,A))
002942 2D20          983+ N00050 DC A(@CALL)
002944 F7F8F0F7      984+      DC A(F00202)
002946 C140          985+      DC CL4'7807'
002948 0001          986+      DC CL2'A'
                   987+      DC AL2(XTRNL)
00294A 0001          988 N00051 STUXX T7800,02,0708,EQ,PLNG=6,PARM=220000,QT=(Q00205),
00294C 0500          989+ N00051 DC A(@TUXX)
00294E 298C          990+      DC AL2(N00055)
002950 2EC2          991+      DC A(T7800)

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LOCTR OBJECT TEXT STMT SOURCE STATEMENT COPYRIGHT IBM CORP 1976

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002952 0000 992+ DC AL2(EQ)
002954 0002 993+ DC AL2(02)
002956 0708 994+ DC X'0708'
          995+ ALIGN WORD
002958 0006 996+ DC AL2(6)
00295A F2F2F0F0F0F0 997+ DC C'1220000'
          998+ ALIGN WORD
002960 196E 999+ DC AL2(PARMARA)
          1000 N00052 $TUXX T3C02,02,0508,EQ,,QT=(Q00208),YES=N00054,ST=(S00029)
          1001+ N00052 DC A(@TUXX)
          1002+ DC AL2(N00054)
          1003+ DC A(T3C02)
          1004+ DC AL2(EQ)
          1005+ DC AL2(02)
          1006+ DC X'0508'
          1007+ ALIGN WORD
          1008+ DC AL2(0)
          1009+ DC C'AA'
          1010+ ALIGN WORD
          1011+ DC AL2(PARMARA)
          1012 N00053 $CALL TYPE=XTRNL,MAP=7807,EP=A,FT=(F00014),GTO=((7807,A))
          1013+ N00053 DC A(@CALL)
          1014+ DC A(F00014)
          1015+ DC CL4'7807'
          1016+ DC CL2'A'
          1017+ DC AL2(XTRNL)
          1018 N00054 $CALL TYPE=XTRNL,MAP=7807,EP=A,FT=(F00216),GTO=((7807,A))
          1019+ N00054 DC A(@CALL)
          1020+ DC A(F00216)
          1021+ DC CL4'7807'
          1022+ DC CL2'A'
          1023+ DC AL2(XTRNL)
          1024 N00055 $TUXX T7800,02,0708,EQ,PLNG=6,PARM=400000,QT=(Q00218),
          1025+ N00055 DC A(@TUXX)
          1026+ DC AL2(N00061)
          1027+ DC A(T7800)
          1028+ DC AL2(EQ)
          1029+ DC AL2(02)
          1030+ DC X'0708'
          1031+ ALIGN WORD
          1032+ DC AL2(6)
          1033+ DC C'400000'
          1034+ ALIGN WORD
          1035+ DC AL2(PARMARA)
          1036 N00056 $TUXX T3C02,02,0508,EQ,,QT=(Q00221),YES=N00060,ST=(S00029)
          1037+ N00056 DC A(@TUXX)
          1038+ DC AL2(N00060)
          1039+ DC A(T3C02)
          1040+ DC AL2(EQ)
          1041+ DC AL2(02)
          1042+ DC X'0508'
          1043+ ALIGN WORD
          1044+ DC AL2(0)
          1045+ DC C'AA'
          1046+ ALIGN WORD
          1047+ DC AL2(PARMARA)
          1048 N00057 $TUXX T3C02,02,0108,EQ,,QT=(Q00224),YES=N00059,ST=(S00029)
          1049+ N00057 DC A(@TUXX)
          1050+ DC AL2(N00059)
          1051+ DC A(T3C02)
          1052+ DC AL2(EQ)
          1053+ DC AL2(02)
          1054+ DC X'0108'
          1055+ ALIGN WORD
          1056+ DC AL2(0)
          1057+ DC C'AA'
          1058+ ALIGN WORD
          1059+ DC AL2(PARMARA)
          1060 N00058 $CALL TYPE=XTRNL,MAP=7807,EP=A,FT=(F00014),GTO=((7807,A))
          1061+ N00058 DC A(@CALL)
          1062+ DC A(F00014)
          1063+ DC CL4'7807'
          1064+ DC CL2'A'
          1065+ DC AL2(XTRNL)
          1066 N00059 $CALL TYPE=XTRNL,MAP=7807,EP=A,FT=(F00233),GTO=((7807,A))
          1067+ N00059 DC A(@CALL)
          1068+ DC A(F00233)
          1069+ DC CL4'7807'
          1070+ DC CL2'A'
          1071+ DC AL2(XTRNL)
          1072 N00060 $CALL TYPE=XTRNL,MAP=7807,EP=A,FT=(F00232),GTO=((7807,A))
          1073+ N00060 DC A(@CALL)
          1074+ DC A(F00232)
          1075+ DC CL4'7807'
          1076+ DC CL2'A'
          1077+ DC AL2(XTRNL)
          1078 N00061 $TUXX T7800,02,0708,EQ,PLNG=6,PARM=410000,QT=(Q00237),
          1079+ N00061 DC A(@TUXX)
          1080+ DC AL2(N00067)
          1081+ DC A(T7800)
          1082+ DC AL2(EQ)
          1083+ DC AL2(02)
          1084+ DC X'0708'
          1085+ ALIGN WORD
          1086+ DC AL2(6)
          1087+ DC C'410000'
          1088+ ALIGN WORD
          1089+ DC AL2(PARMARA)
          1090 N00062 $TUXX T3C02,02,0508,EQ,,QT=(Q00240),YES=N00066,ST=(S00029)
          1091+ N00062 DC A(@TUXX)
          1092+ DC AL2(N00066)
          1093+ DC A(T3C02)
          1094+ DC AL2(EQ)
          1095+ DC AL2(02)
          1096+ DC X'0508'
          1097+ ALIGN WORD
          1098+ DC AL2(0)
          1099+ DC C'AA'
          1100+ ALIGN WORD
          1101+ DC AL2(PARMARA)
          1102 N00063 $TUXX T3C02,02,0308,EQ,,QT=(Q00243),YES=N00065,ST=(S00029)
          1103+ N00063 DC A(@TUXX)
          1104+ DC AL2(N00065)
          1105+ DC A(T3C02)

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LOCTR OBJECT TEXT STMT SOURCE STATEMENT COPYRIGHT IBM COPP 1976

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002A18 0000 1106+ DC AL2(EQ)
002A1A 0002 1107+ DC AL2(02)
002A1C 0308 1108+ DC X'0308'
          1109+ ALIGN WORD
002A1E 0000 1110+ DC AL2(0)
002A20 C1C1 1111+ DC C'AA'
          1112+ ALIGN WORD
002A22 196E 1113+ DC AL2(PARMARA)
          1114 N00064 $CALL TYPE=XTRNL,MAP=7807,EP=A,FT=(F00014),GTO=((7807,A))
          1115+ N00064 DC A(@CALL)
          1116+ DC A(F00014)
          1117+ DC CL4'7807'
          1118+ DC CL2'A'
          1119+ DC AL2(XTRNL)
          1120 N00065 $CALL TYPE=XTRNL,MAP=7807,EP=A,FT=(F00252),GTO=((7807,A))
          1121+ N00065 DC A(@CALL)
          1122+ DC A(F00252)
          1123+ DC CL4'7807'
          1124+ DC CL2'A'
          1125+ DC AL2(XTRNL)
          1126 N00066 $CALL TYPE=XTRNL,MAP=7807,EP=A,FT=(F00249),GTO=((7807,A))
          1127+ N00066 DC A(@CALL)
          1128+ DC A(F00249)
          1129+ DC CL4'7807'
          1130+ DC CL2'A'
          1131+ DC AL2(XTRNL)
          1132 N00067 $TUXX T7800,02,0708,EQ,PLNG=6,PARM=6F0000,QT=(Q00256),
          1133+ N00067 DC A(@TUXX)
          1134+ DC AL2(N00069)
          1135+ DC A(T7800)
          1136+ DC AL2(EQ)
          1137+ DC AL2(02)
          1138+ DC X'0708'
          1139+ ALIGN WORD
          1140+ DC AL2(6)
          1141+ DC C'6F0000'
          1142+ ALIGN WORD
          1143+ DC AL2(PARMARA)
          1144 N00068 $CALL TYPE=XTRNL,MAP=7807,EP=A,FT=(F00014),GTO=((7807,A))
          1145+ N00068 DC A(@CALL)
          1146+ DC A(F00014)
          1147+ DC CL4'7807'
          1148+ DC CL2'A'
          1149+ DC AL2(XTRNL)
          1150 N00069 $TUXX T7805,02,0000,EQ,,YES=N00071,CT=(C00262)
          1151+ N00069 DC A(@TUXX)
          1152+ DC AL2(N00071)
          1153+ DC A(T7805)
          1154+ DC AL2(EQ)
          1155+ DC AL2(02)
          1156+ DC X'0000'
          1157+ ALIGN WORD
          1158+ DC AL2(0)
          1159+ DC C'AA'
          1160+ ALIGN WORD
          1161+ DC AL2(PARMARA)
          1162 N00070 $NVLD FT=(F00264)
          1163+ N00070 DC A(@NVLD)
          1164 N00071 $TUXX T7800,02,0708,EQ,PLNG=6,PARM=6F0000,QT=(Q00267),
          1165+ N00071 DC A(@TUXX)
          1166+ DC AL2(N00073)
          1167+ DC A(T7800)
          1168+ DC AL2(EQ)
          1169+ DC AL2(02)
          1170+ DC X'0708'
          1171+ ALIGN WORD
          1172+ DC AL2(6)
          1173+ DC C'6F0000'
          1174+ ALIGN WORD
          1175+ DC AL2(PARMARA)
          1176 N00072 $CALL TYPE=XTRNL,MAP=7807,EP=A,FT=(F00014),GTO=((7807,A))
          1177+ N00072 DC A(@CALL)
          1178+ DC A(F00014)
          1179+ DC CL4'7807'
          1180+ DC CL2'A'
          1181+ DC AL2(XTRNL)
          1182 N00073 $GOTO TYPE=XTRNL,MAP=7801,EP=A,FT=(F00273),GTO=((7801,A))
          1183+ N00073 DC A(@GOTO)
          1184+ DC A(F00273)
          1185+ DC CL4'7801'
          1186+ DC CL2'A'
          1187+ DC AL2(XTRNL)
          1188+ DC AL2(DUMMY)
          1189 ENTPT EQU *
          1190 *****
          1191 *****
          1192 **
          1193 **
          1194 **
          1195 *****
          1196 *****
          1197 *****
          1198+ ENTPT EP=A,STEP=0001
          1199+ DC CL2'A'
          1200 ENTPT EP=B,STEP=00015
          1201+ DC A(N00001)
          1202+ DC CL2'B'
          1203+ DC A(N00015)
          1204+ DC AL2(DUMMY)
          1205 *****
          1206 **
          1207 **
          1208 **
          1209 *****
          1210 *****
          1211 P0004 EQU *
          1212 DC AL2(0002)
          1213 DC A(0024)
          1214 DC CL0024'CONDITON CODE NOT VALID '
          1215 DC A(0016)
          1216 DC CL0016'GO TO MAP 7807. '
          1217 P0004 EQU *
          1218 DC AL2(0004)
          1219 DC A(0044)

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LOCTP OBJECT TEXT STMT SOURCE STATEMENT COPYRIGHT IBM CORP 1976
002AE4 E6D9D6D5C740F4F9F 1220 DC C10044'WRONG 4962 DEVICE ADDRESS OP 4962 DEVICE NOT'
002B16 0008 1221 DC A(0008)
002B18 C1E3E3C1C3C8C5C4 1222 DC C10008'ATTACHED'
002B20 0028 1223 DC A(0040)
002E22 C1E3E3C1C3C8D4C5D 1224 DC C10040'ATTACHMENT CARD NOT PLUGGED IN CAPD FILE'
002B4A 0010 1225 DC A(0016)
002E4C C7D640E3D640D4C1D 1226 DC C10016'GO TO MAP 7807. '
002B5C 0002 1227 F00063 EQU *

LOCTP OBJECT TEXT STMT SOURCE STATEMENT COPYRIGHT IBM CORP 1976
002E74 0000 1335+OPTN1 DC X'0000' PROGRAM OPTION CONTROL WORD 1
002E76 0000 1336+OPTN2 DC X'0000' PPROGRAM OPTION CONTPOL WORD 2
000010 1337+OPTN3 DC X'0000' BIT HEX
000011 1338+OPTN4 DC X'0000' BIT HEX
000012 1339+B48 EQU 16 0 8
000013 1340+B49 EQU 17 1 4
000014 1341+B50 EQU 18 2 2
000015 1342+B51 EQU 19 3 1
000016 1343+B52 EQU 20 4 8
000017 1344+B53 EQU 21 5 4
000018 1345+B54 EQU 22 6 2
000019 1346+B55 EQU 23 7 1
0001A 1347+B56 EQU 24 8 8
0001B 1348+B57 EQU 25 9 4
0001C 1349+B58 EQU 26 10 2
0001D 1350+B59 EQU 27 11 1
0001E 1351+B60 EQU 28 12 8
0001F 1352+B61 EQU 29 13 4
0002 1353+B62 EQU 30 14 2
00001F 1354+B63 EQU 31 15 1
00001F 1355+CH EQU 30 14 2
00001F 1356+CMP EQU 31 15 1
002E78 0000 1358+OPTN3 DC X'0000' PROGRAM OPTION CONTPOL WORD 3
1359** 0 MYSTERY INTERRUPT MI 8 CS STATUS IN PROGRESS CS
1361** 1 ERROR INTERRUPT EP 9 CS AVAILABLE CSA
1362** 2 EXPECTED INTERRUPT XI 10 CS STATUS INTERRUPT ERR CE
1363** 3 INTERRUPT RECEIVED IN 11 ISB BITS ON (1-7) ISBON
1364** 4 EXPECTED ERR/ATTENT XE 12 TEST UNIT RESULTS VOID NG
1366** 5 HARD ERROR FOUND HE 13 OIO CC ERROR IOCC
1367** 6 WRONG INTR LEVEL SLE 14 NO INTERRUPT NOIN
1368** 7 NO INTR EXPECTED NI 15 INTERRUPT CC ERROR INCC
1369** BIT HEX
1370+MI EQU 32 0 8 MYSTERY INTERRUPT HAPPENED
1371+ER EQU 33 1 4 ERROR RECEIVED ON INTERRUPT
1372+XI EQU 34 2 2 EXPECTED INTERRUPT CONTROL BIT
1373+IN EQU 35 3 1 INTERRUPT RECEIVED CONTROL BIT
1374+HE EQU 36 4 8 EXPECTED ERROR RESPONSE
1375+IE EQU 37 5 4 HARD ERROR RETRIES
1376+SLE EQU 38 6 2 INTERRUPT ON WRONG LEVEL ERROR
1377+NI EQU 39 7 1 NO INTERRUPT EXPECTED E
1378+CS EQU 40 8 8 CYCLE STATUS IN PROGRESS
1379+CSA EQU 41 9 4 CYCLE STEAL AVAILABLE
1380+CE EQU 42 10 2 CYCLE STEAL STATUS INERRRUPT ERPO
1381+ISBON EQU 43 11 1 ISB BITS ON (1-7)
1382+NG EQU 44 12 8 TEST UNIT RESULTS NO GOOD
1383+IOCC EQU 45 13 4 OIO CC ERROR
1384+NOIN EQU 46 14 2 NO INTERRUPT
1385+INCC EQU 47 15 1 INTERRUPT CC ERROR
1386** COMMON BUFFER FOR PRINTING DATA
1388**
1390+\$TUID DC A(**) TEST UNIT IDENTIFICATION
1391+\$IIOIN DC A(**) I/O AND INTR CONDITION CODES
1392+\$ISB DC A(**) R7, INTR STATUS BYTE & DEV ADRS
1393+\$LSTIO DC A(**) ADRS OF LAST I/O + 4 BYTES
1394+\$DEV1 DC A(**) DEVICE DEPENDENT DATA
1395+\$DEV2 DC A(**)
1396+\$DEV3 DC A(**)
1397+\$DEV4 DC A(**)
1398+\$CTID EQU * DEV1 READ ID BUFFER FOR IBIS & TERN
1399+\$CBUF EQU * DCB BUFFER FOR LAST DCB USED
1400+\$DCB1 DC A(**) LAST DCB TABLE, CONTROL WORD
1401+\$DCB2 DC A(**) LAST DCB TABLE, DEV DEP WORD
1402+\$DCB3 DC A(**) LAST DCB TABLE, DEV DEP WORD
1403+\$DCB4 DC A(**) LAST DCB TABLE, DEV DEP WORD
1404+\$DCB5 DC A(**) LAST DCB TABLE, DEV DEP WORD
1405+\$DCB6 DC A(**) LAST DCB TABLE, CHAIN ADRS
1406+\$DCB7 DC A(**) LAST DCB TABLE, BYTE COUNT
1407+\$DCB8 DC A(**) LAST DCB TABLE, BUFFER ADDRESS
1408**
1409+\$SBUF EQU * CYCLE STEAL DATA BUFFER
1410+\$CSTL1 DC A(**) CYCLE STEAL BUFFER, RESIDUAL ADRS
1411+\$CSTL2 DC A(**) CYCLE STEAL WD 2, DEVICE DEPEND
1412+\$CSTL3 DC A(**) CYCLE STEAL WD 3, DEVICE DEPEND
1413+\$CSTL4 DC A(**) CYCLE STEAL WD 4, DEVICE DEPEND
1414+\$CSTL5 DC A(**) CYCLE STEAL WD 5, DEVICE DEPEND
1415+\$CSTL6 DC A(**) CYCLE STEAL WD 6, DEVICE DEPEND
1416+\$CSTL7 DC A(**) CYCLE STEAL WD 7, DEVICE DEPEND
1417+\$CSTL8 DC A(**) CYCLE STEAL WD 8, DEVICE DEPEND
1418**
1419+\$SUBN DC A(**) LAST SUBROUTINE ADDRESS USED
1420+\$DATA DC 2A(**) OPTIONAL DATA
1421+\$INTL DC X'021' INTERRUPT LEVEL REQUESTED
1422+\$RURTN DC A(**) TEST UNIT RETURN ADRS TO MDI
1423+\$RVID DC X'0000' DEVICE ID
1424+\$SVCAL DC A(DEVADD) ADRS OF DEVICE ADDRESS
1425+ DC A(**) IBIS CYLINDER ADDRESS
1426**
1427** THIS TEST UNIT WILL RETURN TO MDI WITHOUT DOING ANY PPROGRAM
1428** FUNCTION. THE RESULTS THAT WERE SET UP IN THE RESULTS APEA ARE
1429** STILL VALID BUT A DIFFERENT TEST IS TO BE PERFORMED.
1430**
1431+\$T3C02 MVWI X'3C02', \$TUID SET UP TEST UNIT ID
1432+ BXS (R7) RETURN TO MDI SUPVR
1433+ COPY COMEQU
1434 *****
1436 *
1437 * EQUATED NAMES FOR SUPPORTED SVC'S
1438 *
1439 *****
1440 OUT EQU 0 OUT SVC
1441 OUTIN EQU 1 OUTIN SVC
1442 IDLE EQU 2 IDLE SVC
1443 ASCII EQU 3 HEX TO ASCII SVC
1444 CHNGE EQU 4 CHANGE LEVEL SVC
1445 PGHCK EQU 5 ALLOW RETURN ON PROGRAM CHECK SVC
1446 EXIT EQU 6 EXIT SVC
1447 TERN EQU 7 TERMINATE SVC
1448 RESET EQU 8 RESET DEVICE SVC
1449 RID EQU 9 READ ID SVC
1450 START EQU 10 START CYCLE STEAL SVC
1451 STCSS EQU 11 START CYCLE STEAL STATUS SVC

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1452 PREP EQU 12 PREPARE DEVICE SVC
1453 READ0 EQU 13 READ WITH FUNCTION BIT 3 OFF SVC
1454 READ1 EQU 14 READ WITH FUNCTION BIT 3 ON SVC
1455 RSTAT EQU 15 READ STATUS SVC
1456 WRIT0 EQU 16 WRITE WITH FUNCTION BIT 3 OFF SVC
1457 WRIT1 EQU 17 WRITE WITH FUNCTION BIT 3 ON SVC
1458 CTRL EQU 18 CONTROL SVC
1459 RICH EQU 19 RELEASE INTEFUPT CONTROL BLOCK SVC
1460 CICH EQU 20 CONNECT INTEFUPT CONTROL BLOCK SVC
1461 HIO EQU 21 PAIT ALL I/O
1462 RECSO EQU 22 REQUEST USE OF DCP DISK SVC
1463 RELSD EQU 23 RELEASE USE OF DCP DISK SVC
1464 HALT EQU 24 HALT SVC
1465 ETOH EQU 25 EBCDIC TO HEX SVC (STRING)
1466 HTOH EQU 26 HEX TO EBCDIC SVC (STRING)
1467 ATOH EQU 27 ASCII TO HEX SVC (STRING)
1468 HTOA EQU 28 HEX TO ASCII SVC (STRING)
1469 ETOA EQU 29 EBCDIC TO ASCII SVC (STRING)
1470 ATOE EQU 30 ASCII TO EBCDIC SVC (STRING)
1471 READI EQU 31 READ DATA SETS FOR MDI/UTIL
1472 WRITI EQU 32 WRITE DATA SETS FOR UTIL
1473 *****
1474 *****
1475 *
1476 *
1477 * EQUATES USED BY TU'S AS CONSTANTS *
1478 *****
1479 PLUS EQU C'+1 PLUS CHAR
1480 MINUS EQU C'-1 MINUS CHAR
1482 ZERO EQU 0
1483 ONE EQU 1
1484 TWO EQU 2
1485 THREE EQU 3
1486 FOUR EQU 4
1487 FIVE EQU 5
1488 SIX EQU 6
1489 SEVEN EQU 7
1490 EIGHT EQU 8
1491 NINE EQU 9
1492 TEN EQU 10
1493 ELEVEN EQU 11
1494 TWELVE EQU 12
1495 THIRTEEN EQU 13
1496 FOURTEEN EQU 14
1497 FIFTEEN EQU 15
1498 SIXTEEN EQU 16
1499 THIRTY TWO EQU 32
1500 ONE28 EQU 128
1501 TWO56 EQU 256
1502 ONEK EQU 1024
1503 TWOK EQU 2048
1504 THREK EQU 3072
1505 FOURK EQU 4096
1507 M1 EQU -1
1508 M2 EQU -2
1509 M3 EQU -3
1510 M4 EQU -4
1512 *****
1513 *
1514 * THE FOLLOWING ARE EQUATES FOR BIT DISPLACEMENTS FROM THE *
1515 * BEGINNING OF THE BYTE TO EACH BIT IN THE WORD OF SWITCHES. *
1516 *
1517 *****
1518 BS0 EQU 0
1519 BS1 EQU 1
1520 BS2 EQU 2
1521 BS3 EQU 3
1522 BS4 EQU 4
1523 BS5 EQU 5
1524 BS6 EQU 6
1525 BS7 EQU 7
1526 BS8 EQU 8
1527 BS9 EQU 9
1528 BS10 EQU 10
1529 BS11 EQU 11
1530 BS12 EQU 12
1531 BS13 EQU 13
1532 BS14 EQU 14
1533 BS15 EQU 15
1535 COPY T7800 01DEC76
1536 T7800 TUIT 1
1537 *****
1538 *
1539** TEST UNIT
1540**
1541** DIPECT PROGRAM CONTPOL TEST UNIT 12/1/76
1542**
1543** PURPOSE
1544**
1545** THREE PARAMETEPS ARE NEEDED FOR THE EXECUTION OF THIS TU AND ARE
1546**
1547** 1. ONE BYTE OF FUNCTION-MODIFIER IE, X'60' FOR PREPARE
1548** 2. TWO BYTES OF DATA TO BE USED IN THE SECOND PART OF THE IDCB,
1549** IE, X'0005' TO SELECT LEVEL 2 FOR AN INTERRUPT.
1550**
1551** CALLING SEQUENCE
1552**
1553** MDI=@TUXX,T7800,2,0708,EQ,PLNG=6,PRAM=FFXXXX'
1554**
1555** RETURN CONTROL
1556**
1557** B TUPTN* RETURN TO MDI SUPEPVISOP
1558**
1559*****
1560+T7800 MVW R7,TURTN SAVE RETURN ADDRESS
1561+ MVWI X'7805',STUID SAVE TU ID FOR DISPLAY
1562+ MVA OPTN1,R4 SET UP POINTER ADRS IN R4
1563**
1564 MVA INTBL,R7 SET R7 TO CONTROL BLOCK AND
1565 SVC CICH * CONNECT IT TO THIS DEVICE
1566 MVWI X'0708',SIOIN INIT THE CONDITION CODES
1567 MVW TUPARM1,P1 SET UP PARAM ADRS
1568 MVW (R1)+,T3C00I * AND SET IN FUNCTION-MODIFIER
1569 MVB DEVADD,T3C00I+1 * FOLLOWED BY THE DEVICE ADRS
1570 MVB (R1)+,T3C00I+2 * AND SET IN EVEN BYTE DATA

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1571 MVB (R1)+,T3C00I+3 * AND SET IN ODD BYTE DATA
1572 MVD T3C00I,R0 GET FUNCTION, MODIFIER AND DEV ADPS
1573 *
1574 IO T3C00I ISSUE THE I/O COMMAND AND
1575 DC X'70AE' * GET THE I/O CONDITION CODE IN P5
1576 SRL 13,55 POSITION CC IN THE RESULTS FIELD
1577 MVB R5,SIOIN * AND SAVE IT IN THE RESULTS
1578 SRL 12,R0 * AND POSITION IT IN THE REG TO
1579 JZ T3C00S * SEND BACK THE RUSLTS IF RFPAD DPC
1580 CBI X'02',P0 IS IT A READ STATUS
1581 JNE T3C00N * NO, CONTINUE TO CHECK
1582 MVW T3C00I+2,P2 * YES, GET ID RECEIVED AND
1583 XW DEVADD+4,P2 CHECK AGAINST SHOULD BE VALUE
1584 MVB R2,TURESUL+2 AND SEND BACK THE PSULTS
1585 J T3C00X
1586 T3C00N CBI X'01',P0 IS IT A READ DPC COMMAND
1587 JE T3C00S * YES, SEND RESULTS TO MDI
1588 CBI X'0F',P0 * IF IT IS A READ ID FUNCTION
1589 JNE T3C00X * NO, GO TO EXIT
1591 T3C00S MVW T3C00I+2,TURESUL+2 SENT BACK DATA RECEIVED AND PXIT
1592 T3C00X MVW SIOIN,TURESUL PUT ANY INTR COND CODE FOUND IN
1593 TXIT * RESULTS AND EXIT
1594+ B \$CONX RETURN TO MDI CONTROLLER
1595+*****
1596 *
1597 * IDCB FOP DIRECT PROGRAM CONTROL COMMAND
1598 *
1599 T3C00I DC X'0000' FUNCTION-MODIFIER-DEVICE ADDRESS
1600 DC X'0000' IMMEDIATE DATA BUFFER
1601 COPY T7805 01DEC76
1602 T7805 TUIT 1
1603 *****
1604**
1605** TEST UNIT
1606**
1607** DELAY COUNTER (2 SEC) 12/1/76
1608**
1609** PURPOSE
1610**
1611** TO DELAY WHILE THE DEVICE IS DOING A PREVIOUS REQUESTED FUNCTION
1612**
1613** CALLING SEQUENCE
1614**
1615** NO TUPESULTS ARE PASSED BACK TO MDI.
1616**
1617** RETURN CONTROL
1618**
1619** B TURTN* RETURN TO MDI SUPERVISOR
1620**
1621*****
1622+T7805 MVW R7,TURTN SAVE RETURN ADDRESS
1623+ MVWI X'7805',STUID SAVE TU ID FOR DISPLAY
1624+ MVA OPTN1,R4 SET UP POINTER ADRS IN R4
1625**
1626 MVWZ TURESUL,R2 CLEAR TU RESULTS WORD
1627 MVWI X'254C',P0 INITIALIZE THE COUNT FOR 2 SEC
1628 T777 SVC IDLE TIME OUT 2 SEC
1629 JCT T777,P0 *
1630 TXIT
1631+ B \$CONX RETURN TO MDI CONTROLLER
1632+*****
1633 COPY T78DCB 01DEC76
1634 ** (T78DCB)
1635 *****
1636 *
1637 * DCB TABLES AND DC'S
1638 *
1639 *****
1640 *
1641 ***** DIAGNOSTIC DCB *****
1642 *
1643 DGDCB DC X'2008' DIAGNOSTIC DCB
1644 DC X'0000' NOT USED
1645 DC A(*-*) 0-7 = PHYSICAL SECTOR # MINUS ONE
1646 DC X'0000' NOT USED
1647 DC X'0000' NOT USED
1648 DC A(*-*) CHAIN ADDRESS
1649 DC X'0100' BYTE COUNT
1650 DC A(*-*) DATA ADDRESS
1651 *
1652 *
1653 ***** RECALIBRATE DCB *****
1654 *
1655 CLDCB DC X'0007' RECALIBRATE DCB
1656 DC 7A(*-*)
1657 *
1658 ***** WRITE SECTOR ID **
1659 *
1660 WSDCB DC X'0002' WRITE SECTOR ID CONTROL WORD
1661 DC X'0000' NOT USED
1662 DC A(*-*) 0-7 = PHYSICAL SECTOR # MINUS ONE
1663 DC A(*-*) NOT USED
1664 DC A(*-*) NOT USED
1665 DC A(*-*) CHAIN ADDRESS
1666 DC X'0006' BYTE COUNT
1667 DC A(WRSID) ADDR OF SECTOR ID DATA
1668 ***** READ SECTOR ID DCB *****
1669 *
1670 RSDCB DC X'200A' READ SECTOR ID
1671 DC X'0000' NOT USED
1672 DC X'0000' 0-7 = PHYSICAL SECTOR # MINUS ONE
1673 DC X'0000' NOT USED
1674 DC X'0000' NOT USED
1675 DC X'0000' CHAIN ADDRESS
1676 DC X'0006' BYTE COUNT FOR READ SECTOR ID
1677 DC A(SCTID) SECTOR ID DATA ADDRESS
1678 *
1679 *
1680 ***** READ SECTOR ID IMMEDIATE DCB *****
1681 *
1682 RIDCB DC X'200E' READ SECTOR ID
1683 DC X'0000' NOT USED
1684 DC X'0000' NOT USED

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002F98 0000 1685 DC X'0000' NOT USED
002F9A 0000 1686 DC X'0000' NOT USED
002F9B 0000 1687 DC A(*-*) CHAIN ADDRESS
002F9C 0000 1688 DC X'0006' BYTE COUNT FOR READ SECTOR ID
002FA0 2E82 1689 DC A(SCTID) SECTOR ID DATA ADDRESS
1690 *
1691 *
1692 ***** SEEK DCB *****
1693 *
1694 SKDCB DC X'0005' SEEK DCB
002FA2 0005 1695 DC X'0000' BIT 0-3=0;BIT4=DIRECTION;5-15=DIFFER
002FA4 0000 1696 DC F'0'
002FA6 0000 1697 DC F'0'
002FA8 0000 1698 DC X'0000' 0-7 = HEAD;8-15 NOT USED
002FAA 0000 1699 DC A(*-*) CHAIN ADDRESS
002FAC 0000 1700 DC F'0' NOT USED
002FAE 0000 1701 DC F'0' NOT USED
1702 *
1703 ***** CYCLE STEAL STATUS DCB *****
1704 *
002FB2 2000 1705 CSDCB DC X'2000' CONTROL WORD
002FB4 0000 1706 DC F'0' NOT USED
002FB6 0000 1707 DC F'0' NOT USED
002FB8 0000 1708 DC F'0' NOT USED
002FBA 0000 1709 DC F'0' NOT USED
002FBC 0000 1710 DC F'0' NOT USED
002FBE 0000 1711 DC X'0008' 4 WORDS OF STATUS
002FC0 2E9A 1712 DC A(CSBUF) ADDRESS OF CYCLE STEAL STATUS DATA
1713 *
1714 ***** WRITE DCB *****
1715 *
002FC2 0001 1716 WRDCB DC X'0001' WRITE CONTROL WORD
002FC4 0000 1717 DC F'0' NOT USED
002FC6 0000 1718 DC X'0000' 0-7=0;8-15 = FLAG BYTE
002FC8 0000 1719 DC X'0000' SEARCH ARGUMENT CYLINDER
002FCA 0000 1720 DC X'0000' SEARCH ARGUMENT HEAD-SECTOR
002FCC 0000 1721 DC A(*-*) CHAIN ADDRESS
002FCE 0000 1722 DC F'0' BYTE COUNT
002FD0 0000 1723 DC A(*-*) WRITE DATA ADDRESS
1724 *
1725 ***** VERIFY DCB *****
1726 *
002FD2 200C 1727 VRDCB DC X'200C' CONTROL WORD
002FD4 0000 1728 DC F'0' NOT USED
002FD6 0000 1729 DC X'0000' 0-7=0;8-15 = FLAG BYTE
002FD8 0000 1730 DC X'0000' CYLINDER
002FDA 0000 1731 DC X'0000' HEAD - SECTOR
002FDC 0000 1732 DC A(*-*) CHAIN ADDRESS
002FDE 0000 1733 DC F'0' BYTE COUNT
002FE0 0000 1734 DC A(*-*) VERIFY DATA ADDRESS
1735 *
1736 ***** READ DCB *****
1737 *
002FE2 2009 1738 RDCB DC X'2009' READ DCB CONTROL WORD
002FE4 0000 1739 DC F'0' NOT USED
002FE6 0000 1740 DC X'0000' 0-7=0;8-15 = FLAG BYTE
002FE8 0000 1741 DC X'0000' SEARCH ARGUMENT CYLINDER
002FEA 0101 1742 DC X'0101' SEARCH ARGUMENT H-F
002FEC 0000 1743 DC A(*-*) CHAIN ADDRESS
002FEE 0000 1744 DC F'0' BYTE COUNT
002FE0 0000 1745 DC A(*-*) READ DATA ADDRESS
1746 *
1747 ***** WRITE SECTOR ID SKEWED *****
1748 *
002FF2 0003 1749 WKDCB DC X'0003' CONTROL WORD
002FF4 0000 1750 DC X'0000' NOT USED
002FF6 0000 1751 DC A(*-*) 0-7 = PHYSICAL SECTOR # MINUS ONE
002FF8 0000 1752 DC A(*-*) NOT USED
002FFA 0000 1753 DC A(*-*) NOT USED
002FFC 0000 1754 DC A(*-*) CHAIN ADDRESS
002FFE 0006 1755 DC X'0006' BYTE COUNT
003000 3038 1756 DC A(WFSID) ADDR OF SECTOR ID DATA
1757 *
1758 ***** READ SECTOR ID SKEWED *****
1759 *
003002 200B 1760 RKDCB DC X'200B' CONTROL WORD
003004 0000 1761 DC X'0000' NOT USED
003006 0000 1762 DC X'0000' 0-7 = PHYSICAL SECTOR # MINUS ONE
003008 0000 1763 DC X'0000' NOT USED
00300A 0000 1764 DC X'0000' NOT USED
00300C 0000 1765 DC A(*-*) CHAIN ADDRESS
00300E 0006 1766 DC X'0006' BYTE COUNT FOR READ SECTOR ID
003010 2E82 1767 DC A(SCTID) SECTOR ID DATA ADDRESS
1768 *
1769 * CONSTANTS AND DEFINED STORAGE LOCATIONS
003012 0000 1770 ZERO DC X'0000' CONSTANT ZERO
003014 0001 1771 ONE DC X'0001' CONSTANT ONE
003016 00000000 1772 TIMEOUT DC 2A(*-*) TIMEOUT COUNTER
00301A 0000 1773 TONE DC X'0000' CONSTANT FOR ADD DOUBLE
00301C 0001 1774 *
00301E 0500 1775 COUNT DC F'1280' BYTE COUNT (1280)
003020 0000 1776 DFF DC A(*-*) SEEK DIFFERENCE
003022 0000 1777 XX DC A(*-*) WORK WORD INT TO ZFPO
003024 0000 1778 BCNT DC X'0000' BYTE COUNT
003026 0000 1779 JOE DC A(*-*) WRITE PARAMETER POINTER
003028 0000 1780 JOE1 DC A(*-*) SAVE LOC FOR PARAM LIST ADDRESS
00302A DEB6 1781 WDATA DC X'DEB6' WRITE DATA
00302C 6BED 1782 *
00302E 0000 1783 TABLE DC A(*-*) ADDR OF WFT PAR LIST FOR PPMAT PTNS
003030 0000 1784 LGSEC DC X'0000' LOGICAL SECTOR #
003032 0000 1785 PHYSC DC X'0000' CONVERTED PHYSICAL SEC #
003034 1D00 1786 CB29 DC X'1D00' CONSTANT BYTE 29
003036 3B00 1787 FIVE9 DC X'3B00' CONSTANT BYTE 59
003038 0000 1788 WRSID DC X'0000' FLAG,CYLINDER (WRT SECTOR ID DATA)
00303A 0000 1789 *
00303C 0000 1790 * LOG SECTOR NOT USED
00303E 00FF 1791 CDAT DC X'00FF' INVALID DATA CONSTANT
003040 FF34 1792 WSIDT DC X'FF34' WRITE SECTOR ID TEST DATA
003042 5678 1793 *
003044 9A00 1794 DC X'9A00' *
003046 0000 1795 SCTST DC X'0000' READ SECTOR ID TEST DATA BUFFER
003048 0000 1796 DC X'0000' *
00304A 0000 1797 DC X'0000' *
00304C 0000 1798 CTR01 DC X'0000' COUNTER

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00304E 0000 1799 CTR02 DC X'0000' COUNTER
003050 0000 1800 CTR03 DC X'0000' COUNTER
003052 0000 1801 CTR04 DC X'0000' COUNTER
003054 0000 1802 CTR05 DC X'0000' COUNTER
003056 0000 1803 CTR06 DC X'0000' COUNTER
003058 0000 1804 SAVP3 DC X'0000' SAVE APEA
00305A 0000 1805 SAVP5 DC X'0000' SAVE APEA
00305C 0000 1806 WR2 DC X'0000'
00305E 0000 1807 SVSEK DC X'0000'
003060 0000 1808 LCT DC X'0000'
003062 0000 1809 T56AA DC X'0000'
003064 0000 1810 T56BB DC X'0000'
003066 0000 1811 T56CC DC X'0000'
003068 0000 1812 T56DD DC X'0000'
00306A 0000 1813 T56EE DC X'0000'
00306C 0000 1814 T56FF DC X'0000'
00306E 0000 1815 T56GG DC X'0000'
003070 0000 1816 T56AA DC X'0000'
003072 0000 1817 T56BB DC X'0000'
003074 0000 1818 T56CC DC X'0000'
003076 0000 1819 T56DD DC X'0000'
003078 0000 1820 T56EE DC X'0000'
00307A 0000 1821 T56FF DC X'0000'
00307C 0000 1822 T56GG DC X'0000'
00307E 0000 1823 I41D DC X'0000'
003080 0000 1824 T41LP DC X'0000'
003082 0000 1825 WRLCT DC X'0000'
003084 0000 1826 CYLOC DC X'0000'
003086 0000 1827 FISS1 DC A(*-*)
003088 0000 1828 HEAD0 DC A(*-*)
00308A 0000 1829 HEAD1 DC A(*-*)
00308C 0000 1830 GDSE0 DC A(*-*)
00308E 0000 1831 GDSE1 DC A(*-*)
003090 0000 1832 ER00 DC A(*-*)
003092 0000 1833 ER01 DC A(*-*)
003094 0000 1834 HD0SV DC A(*-*)
003096 0000 1835 HD1SV DC A(*-*)
003098 0000 1836 EP0SV DC A(*-*)
00309A 0000 1837 ER1SV DC A(*-*)
00309C 0000 1838 PATTF DC A(*-*)
00309E 0000 1839 CECYL DC A(*-*)
0030A0 0000 1840 STATS DC A(*-*)
1841 *
1842 *
1843 XEQIT 01DEC76
1844 ***** 29JUL76**
1845**
1846** SUB-ROUTINE
1847**
1848** EXECUTE INPUT AND OUTPUT COMMANDS
1849**
1850** PURPOSE
1851**
1852** TO EXECUTE ALL I/O COMMANDS FROM A COMMON PLACE.
1853** THIS SUBROUTINE WILL DO THE FOLLOWING FUNCTIONS:
1854**
1855** 1. SAVE THE ADDRESS THAT POINTS TO THE INSTRUCTION THAT STARTED
1856** THE I/O COMMAND.
1857** 2. SAVES THE DCB BLOCK USED UNLESS IT IS A START CYCLE STATUS
1858** ISSUED BY THIS SUBROUTINE.
1859** 3. CLEAR OUT THE CYCLE STEAL STATUS STORAGE UNLESS THE
1860** START CYCLE STATUS WAS ISSUED BY THIS SUBROUTINE.
1861** 4. RESETS THE INTERRUPT INDICATOR AND CHECKS FOR ANY INTERRUPT
1862** SINCE THE LAST EXPECTED INTERRUPT. IF AN INTERRUPT IS FOUND,
1863** MYSTERY INTERRUPT (MI) CONTROL BIT IS SET.
1864** 5. MOVES THE ADDRESS OF THE I/O CONTROL BLOCK IN R7, SET THE
1865** EXPECTED INTERRUPT CONTROL BIT AND ISSUE THE 'SVC' START'.
1866** 6. WHEN THE SUBV RETURNS AFTER ISSUING THE I/O COMMAND, TIMING
1867** STARTS TO DETERMINE A LOST INTERRUPT.
1868** 7. EXCEPT THE INTERRUPT AND GATHER INFORMATION TO DETERMINE IF IT
1869** WAS AN ERROR OR OKAY AND EXIT OFF THE INTERRUPT LEVEL.
1870** 8. CHECK IF THERE WAS A WRONG INTERRUPT LEVEL.
1871** 9. CHECK IF AN ERPOP WAS EXPECTED AND IF THERE WAS RETURN.
1872** 10. CHECK IF THERE WAS AN ERROR CONDITION, IF NOT RETURN.
1873** 11. CHECK TO SEE IF THE EXERCISER IS TO BE TERMINATED.
1874** 12. CHECK IF A CYCLE STEAL OPERATION WAS IN PROGRESS THAT WAS
1875** ISSUED BY THIS SUBROUTINE.
1876** 13. CHECK THE ISB BITS THAT ARE ON. IF BIT 0 IS ON, ISSUE A
1877** CYCLE STEAL STATUS COMMAND. CHECK FOR ANY OTHER BIT BEING ON,
1878** COUNT IT AND SET UP THE PROPER ERROR MESSAGE TO BE PRINTED.
1879**
1880** CALLING SEQUENCE
1881**
1882** THIS ROUTINE HAS THE FOLLOWING ENTRIES:
1883**
1884** --> BAL XIO OR XEQ ANY CYCLE STEAL COMMAND, MOD=0
1885** --> BAL XIO1 MOD PARM PRELOADED IN 'IOMOD'
1886** --> BAL XIOCS,R6 OR XEQ START CYCLE STEAL STATUS, MOD=P
1887** --> BAL XIOCS-4,P6 AUTO CS STATUS (FOLLOWING OTHER XIO
1888** AND DOES NOT POST INTERRUPT STATUS)
1889**
1890** RETURN CONTROL
1891**
1892** BXS (R6,2) RETURN TO USER NO ERROR
1893** OR B (R6)* RETURN AND RETRY ON ERROR
1894*****
1895** XIO IOMOD,R3 SET MOP OF 0 FOR CYCLE STEAL OP
1896** J XIO1 CS I/O'S ARE NOT RETRIED
1897**
1898**
1899** TRTP (R4,CE) RESET CS STATUS INTER ERROR INDICAT.
1900** TBTS (R4,CS) SET 'CYCLE STEAL STATUS' IN PROGRESS
1901** XIOCS MVA CSBUF,IODCB SET UP CONTROL BLOCK FOR SVC CALL
1902** MWT X'000F',IOMOD SET CYCLE STEAL MODIFIER
1903** TB (R4,CS) IS CS IN PROGRESS, ERROR CONDITION
1904** JON XIO2 * YES, BYPASS SAVING I/O ADRS
1905** XIO1 MVA R6,ISTIO SAVE IAR FOR PTRY IF REQUESTED
1906** MVA DCBUF,R3 SET UP TO ADES TO MOVE DCB TABLE
1907** IODCB,P5 * AND THE FROM ADRS. ALONG WITH
1908** MVI 16,P7 * THE NUMBER OF MOVES
1909** MVI (R5),(R3) MOVE 1 STATUS WORD AND ADJUST
1910** MVI 255,R3 CLEAR CYCLE STATUS BUFFER
1911** MVA CSBUF,R5 * TO ALL ONES *
1912** MVI 16,P7 *
1913** R3,(R5) *
1914** MVI X'0708',SIOIN OVERLAY OLD CONDITION CODES

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0030DC CR25 2E7E 1915+ MVWZ \$ISB,R3 ZERO OUT OLD ISB VALUE
1916+
1917+ TBTR (R4,ER) RESET ANY ERROR BEFORE I/O COMMAND
1918+XIO2 TBTR (R4,IN) CLEAR INTERRUPT RECEIVED CNTL BIT
1919+ MVA OPTN1,R4 SET UP BASE ADPS
1920+ TBTR (R4,SLE) SET UP CONTROL BLOCK FOR SUPVR
1921+ TBTR (R4,SE) RESET LEVEL ERROR INDICATOR
1922+ TBTS (R4,XI) SET EXPECTED INTR CONTROL BIT
1923+ SVC STAFF CALL SUPVR FOR I/O COMMAND
1924+ TBTR (R4,NT) IS AN INTR EXPECTED
1925+ BN (R6,2) * NO, RETURN TO USER
1926+
1927+ THE INTR SHOULD OCCUR WHILE SPINNING IN THE NEXT SECTION
1928+
1929+ MVBI X'00',R5 SET UP WORK REG FOR 'LOST INTR'
1930+XIO8 TBTR (R4,IN) HAS INTERRUPT BEEN RECEIVED
1931+ JON XIOCK * YES, CHECK IF ALL WAS SATISFACTORY
1932+ SVC IDLE ALLOW ANOTHER PROGRAM A CHANCE TO RUN
1933+ SUPVR WILL RETURN HERE
1934+ ANI 1,R5 ADVANCE TIME OUT COUNT
1935+ JNZ 1,R5 BCH IF TIME OUT NOT REACHED
1936+ TBTS (R4,ER) SET ON ERROR CONTROL BIT
1937+ B (R6,*) EPR 'NO INTERRUPT'
1939+*****03FEB76**
1940+
1941+ SUBROUTINE
1942+
1943+ I/O EXECUTE ERROR HANDLING ROUTINE
1944+
1945+ PUPPOSE
1946+
1947+ THIS ROUTINE WILL COLLECT INFORMATION TO HELP DETERMINE THE
1948+ PROBLEM THAT WAS FOUND WHEN THE I/O COMMAND WAS ISSUED BY THE
1949+ SUPERVISOR AND IT WAS NOT ACCEPTED.
1950+
1951+ CALLING SEQUENCE
1952+
1953+ SUPVR WILL ENTER WHEN AN ERROR OCCURS ON AN I/O COMMAND
1954+
1955+ RETURN CONTROL
1956+
1957+ B (R6,*) RETURN TO USERS ERROR HANDLER
1958+
1959+*****14APR76**
1960+
1961+ CC 0= DEVICE NOT ATTACHED
1962+ FOR 1= DEVICE BUSY
1963+ I/O 2= DEVICE BUSY AFTER RESET
1964+ 3= COMMAND REJECT
1965+ 4= INTERVENTION REQUIRED
1966+ 5= INTERFACE DATA CHECK
1967+ 6= CONTROLLER BUSY
1968+ 7= I/O COMMAND EXPECTED
1969+
1970+XIOER DC X'706E' COPY STATUS ANY LEVEL INTO P3
1971+ SRL 13,R3 POSITION CC CODE TO BITS 13-15
1972+ MVB R3,\$IOIN * PUT IN LOG OUT AREA
1973+ B (R6,*) RETURN TO USER ERROR HANDLER
1975+*****14APR76**
1976+
1977+ SUB-ROUTINE
1978+
1979+ ERROR INTERRUPT PUNS ON INTERRUPT LEVEL '\$INT1'
1980+
1981+ PUPPOSE
1982+
1983+ THIS ROUTINE WILL BE ENTERED WHEN THE SUPVR DETECTS AN ERROR
1984+ OR THE INTERRUPTING CONDITION CODE DOES NOT AGREE WITH THE
1985+ EXPECTED CODE.
1986+
1987+ CALLING SEQUENCE
1988+
1989+ SUPVR WILL ENTER WHEN AN ERROR OCCURS ON AN I/O INTERRUPT
1990+
1991+ RETURN CONTROL
1992+
1993+ SVC EXIT RETURN TO USER VIA SUPVR
1994+
1995+*****
1996+
1997+ CC 0= CONTROLLED END ISB 0= ADD STATUS
1998+ FOR 1= PROGRAM CONTROL INTERRUPT ISB 1= COMD REJECT
1999+ INTR 2= EXCEPTION INTERRUPT ISB 2= INCOR LENGTH
2000+ 3= DEVICE END INTERRUPT ISB 3= DCB SPEC CK
2001+ 4= ATTENTION INTERRUPT ISB 4= STG DATA CK
2002+ 5= ATTENTION / PROGRAM CNTL INTR ISB 5= INV STG ADPS
2003+ 6= ATTENTION / EXCEPTION INTR ISB 6= PROTECT CK
2004+ 7= ATTENTION / DEVICE END INTR ISB 7= I-FACE DATA
2005+
2006+INTER DC X'706E' COPY STATUS ANY LEVEL INTO P3
2007+ SRL 13,R3 POSITION INDICATORS IN R3
2008+ MVA OPTN1,R4 SET UP BASE ADPS
2009+ TBTR (R4,CS) IS CS IN PROGRESS
2010+ JOFF INTES * NO
2011+ TBTS (R4,CE) TURN ON CYCLE STEAL INTR EPRCP
2012+ MVB R3,\$IOIN SAVE CS ERR ISB VALUE, BITS 0-7
2013+ MVB R3,\$IOIN * AND THE COND CODE
2014+ J INTR1
2015+INTES TBTR (R4,XE) TEST EXPECTED ATEN / ERROR IND
2016+ JOFF INTET BCH IF NOT EXPECTED
2017+ CBI 4,R3 IS THIS AN 'ATTENTION' INTR
2018+ JE INTR1 * YES, PCH TO END INTR SEQUENCE
2019+INTET TBTS (R4,ER) SET ERROR ON I/O COMMAND CNTL BIT
2020+ J INTR1
2021+ THE ERROR INTERRUPT USES THE SAME
2022+ ENDING SEQUENCE AS THE NORMAL INTR
2023+*****14APR76**
2024+
2025+ SOUBROUTINE
2026+
2027+ OKAY INTERRUPT RUNS ON INTERRUPT LEVEL '\$INT1'
2028+
2029+
2030+ PUPPOSE
2031+*

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2032+ TO CHECK THE INTERRUPT AND CONTINUE THE TEST IL
2033+ IL
2034+ CALLING SEQUENCE IL
2035+ IL
2036+ SUPERVISOR WILL ENTER HERE IF INTR CC IS AS REQUESTED IL
2037+ THE ERROR INTERRUPT HANDLER WILL BRANCH TO THIS ROUTINE IL
2038+ AFTER THE SPECIAL PART HAS BEEN COMPLETED AND THE IL
2039+ COMMON SECTION IS HANDLED HERE. IL
2040+ IL
2041+ RETURN CONTROL IL
2042+ IL
2043+ SVC EXIT RETURN TO USER VIA SUPVR IL
2044+ IL
2045+*****IL
2046+INTOK DC X'706E' COPY STATUS ANY LEVEL INTO P3 IL
2047+ SRL 13,R3 POSITION INDICATORS IN R3 IL
2048+ MVA OPTN1,R4 SET UP BASE ADPS IL
2049+INTR1 TBTR (R4,IN) SET INTERRUPT RECEIVED IL
2050+ TBTS (R4,CS) IS 'CS IN PROGRESS' ON IL
2051+ JBN INT62 * YES, BCH AROUND UPDATE IL
2052+ MVB R3,\$IOIN+1 SAVE INTERRUPTING CC CODE IL
2053+ MVB R7,\$ISB SAVE INTR STATUS AND DEV ADPS IL
2054+INTR2 EQU * IL
2055+ CPCI R5 CURRENT LEVEL COPIED BY DCP IL
2056+ SLL 4,R5 POSITION INTR LEVEL AND PUT IL
2057+ ABI 1,R5 * IN 'I' BIT IL
2058+ CW \$INT1,R5 IS THIS THE CORRECT INTR LEVEL IL
2059+ JE INTR3 * YES, GO EXIT THIS LEVEL IL
2060+ TBTS (R4,SLE) SET INTR LEVEL ERROR CONTROL BIT IL
2061+ TBTR (R4,ER) SET ERROR ON I/O COMMAND CNTL BIT IL
2062+INTR3 TBTR (R4,XI) WAS INTERRUPT EXPECTED IL
2063+ JON INTR3 * YES, EXIT OFF THIS INTR LEVEL IL
2064+ TBTS (R4,MI) * NO, SET MYSTERY INTR CONTROL BIT IL
2065+ CBI 4,R3 ATTENTION INTERRUPT? IL
2066+ JE INTRX YES IL
2067+ TBTS (R4,NG) ERROR, UNEXPECTED INTERRUPT IL
2068+INTRX SVC EXIT EXIT THIS LEVEL VIA SUPVR TO PGM IL
2070+*****03FEB76**
2071+
2072+ THIS IS THE CONTINUATION OF EXECUTE I/O AFTER THE INTERRUPT
2073+ HAS BEEN SERVICED. THE EXERCISER FINDS AN INTERRUPT HAS BEEN
2074+ RECEIVED AND BRANCHES HERE TO CHECK FOR ANY ERROR CONDITIONS.
2075+
2076+
2077+XIOCK TBTR (R4,XE) WAS AN ERROR EXPECTED
2078+ BN (R6,2) * YES, EXIT THIS ROUTINE
2079+ TBTR (R4,CS) WAS AUTO CS IN PROGRESS
2080+ JOFF XIOCV * NO, CONTINUE CHECKING
2081+ TBTR (R4,CE) IS CS IN AN ERR CONDITION
2082+ JOFF XIOCO * NO, BCH
2083+ B (R6,*) CS ERROR
2084+XIOCO TBTS (R4,CSA) TURN ON CS STATS AVAIL FLAG
2085+ BXS (R6,2) GO TO USER
2086+XIOCV TBTR (R4,ER) WAS ERROR INTR CONTROL BIT ON
2087+ JOFF XIOCX * NO, EXIT THIS ROUTINE
2088+
2089+ MVB \$IOIN+1,R5 GET LAST INTR CC CODE
2090+ CBI 2,R5 IS THIS CC=2
2091+ BNE (R6,*) * NO, BCH TO ERROR HANDLER
2092+XTOCV MVB \$ISB,R5 GET LAST ISB DATA BYTE AND IF CS
2093+ BN XIOCS-4 * AVAILABLE, GO AND GET IT
2094+ B (R6,*) ERROR
2095+XIOCK MVWZ OPTN3,P3 CLEAR OUT OPTION 3 CNTL BITS
2096+ BXS (R6,2) RETURN TO USER VIA REG 6
2097+
2098+ I/O PAFAMETER LIST
2099+
2100+TOBLK DC A(DEVADD) ADPS OF DEVICE ADPS
2101+ A(XIOER) ERROR ROUTINE ADPS
2102+TODCE DC A(XIOER) DCP ADPS OR LEVEL & INTR
2103+IOMOD DC A(*) MODIFIER
2104+ DC A(*) ADPS OF LAST SVC CALL
2105+TORSP DC A(*) SECOND WORD OF LAST IDCB
2106+
2107+ INTERRUPT CONTROL BLOCK FOR I/O COMMANDS
2108+
2109+INTBL DC A(DEVADD) ADPS OF DEVICE ADPS
2110+ DC A(INTOK) INTERRUPT OR RETURN ADPS
2111+ DC A(INTR) INTERRUPT ERROR ADPS
2112+INTCC DC X'0003' INTERRUPT CODE EXPECTED
2114+*****11MAY76**
2115+
2116+ SUPROUTINE
2117+
2118+ CONNECT INTERRUPT CONTROL BLOCK & PREPARE DEVICE
2119+
2120+ PUPPOSE
2121+
2122+ TO CONNECT THE INTERRUPT CONTROL BLOCK TO THIS DEVICE AND
2123+ PREPARE ON THE DESIRED INTERRUPT LEVEL AND TO ALLOW THE DEVICE
2124+ TO INTERRUPT.
2125+
2126+ CALLING SEQUENCE
2127+
2128+ THIS SUBROUTINE HAS THE FOLLOWING ENTRIES:
2129+
2130+ --> BAL \$CONC,P6 CLEAR DEV DEP STG AND CONNECT I/O BLK
2131+ --> BAL \$CONC,P6 PREPARE DEVICE ONLY, ALREADY CONNECT
2132+
2133+ RETURN CONTROL
2134+
2135+ OP BXS (R6,2) RETURN TO USER VIA REG 6 IF OKAY
2136+ OP B (R6,*) IF THE DEVICE COULD NOT BE CONNECTED
2137+
2138+*****
2139+ \$CONC MVBI 6,R7 NUMBER OF BYTE TO CLEAR
2140+ MVBI 0,R3 * AND THE DATA TO USE
2141+ MVI DEV1,P5 * ALONG WITH THE ADPS TO USE
2142+ FBN R3,(R5) *
2143+ MVWZ OPTN3,P3 CLEAR OLD CONTROLS FOR NEW ROUTINE
2144+ MVA SVCAL,P7 SET UP TO REQUEST DCP SUPP DISK
2145+ SVC FEQSD *
2146+ MVBI -1,R7 SET UP DELAY FOR IRIS
2147+ JCT *,R7 * AND DECREMENT IT DOWN

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0031CC 4724 31AC 2148+ MVA INTEL,R7 SET P7 TO CONTROL BLOCK AND
0031DO 6014 2149+ SVC CICB *CONNECT IT TO THIS DEVICE
0031D2 6A00 0000 2150+ BN (R6)* EPROP RETURN TO USEP

DECLARED NAME ATTRIBUTES AND REFERENCES
0 .P0. ABSOLUTE, HEX VALUE(00000000)
0 .R1. ABSOLUTE, HEX VALUE(00000001)
0 .R2. ABSOLUTE, HEX VALUE(00000002)
0 .R3. ABSOLUTE, HEX VALUE(00000003)

DECLAPED	NAME	ATTRIBUTES AND REFERENCES
1241	F00072	ADDRESS. HEX LOCATION(00002BEE) IN CSECT(I7800) LENGTH(1)
1247	F00075	ADDRESS. HEX LOCATION(00002C1C) IN CSECT(I7800) LENGTH(1)
1263	F00112	ADDRESS. HEX LOCATION(00002CB6) IN CSECT(I7800) LENGTH(1)
1269	F00126	ADDRESS. HEX LOCATION(00002CB2) IN CSECT(I7800) LENGTH(1)
1275	F00140	ADDRESS. HEX LOCATION(00002CDE) IN CSECT(I7800) LENGTH(1)
1285	F00202	ADDRESS. HEX LOCATION(00002D20) IN CSECT(I7800) LENGTH(1)
1291	F00216	ADDRESS. HEX LOCATION(00002D4C) IN CSECT(I7800) LENGTH(1)
1305	F00232	ADDRESS. HEX LOCATION(00002DAA) IN CSECT(I7800) LENGTH(1)
1297	F00233	ADDRESS. HEX LOCATION(00002D78) IN CSECT(I7800) LENGTH(1)
1319	F00249	ADDRESS. HEX LOCATION(00002E12) IN CSECT(I7800) LENGTH(1)
1311	F00252	ADDRESS. HEX LOCATION(00002DD6) IN CSECT(I7800) LENGTH(1)
1329	F00273	ADDRESS. HEX LOCATION(00002E54) IN CSECT(I7800) LENGTH(1)
2242	HEBLK	ADDRESS. HEX LOCATION(00003368) IN CSECT(I7800) LENGTH(2)
1466	HIOE	ABSOLUTE. HEX VALUE(0000001A)
1442	IDLE	ABSOLUTE. HEX VALUE(00000002)
1373	IN	ABSOLUTE. HEX VALUE(00000023)
2109	INTBL	ADDRESS. HEX LOCATION(000031AC) IN CSECT(I7800) LENGTH(2)
2006	INTER	ADDRESS. HEX LOCATION(00003114) IN CSECT(I7800) LENGTH(2)
2015	INTES	ADDRESS. HEX LOCATION(0000312C) IN CSECT(I7800) LENGTH(2)
2019	INTET	ADDRESS. HEX LOCATION(00003134) IN CSECT(I7800) LENGTH(2)
2046	INTOK	ADDRESS. HEX LOCATION(00003138) IN CSECT(I7800) LENGTH(2)
2068	INTRX	ADDRESS. HEX LOCATION(00003168) IN CSECT(I7800) LENGTH(2)
2049	INTR1	ADDRESS. HEX LOCATION(00003140) IN CSECT(I7800) LENGTH(2)
2054	INTR2	ADDRESS. HEX LOCATION(0000314E) IN CSECT(I7800) LENGTH(1)
2062	INTR3	ADDRESS. HEX LOCATION(0000315C) IN CSECT(I7800) LENGTH(2)
2100	IOBLK	ADDRESS. HEX LOCATION(000031A0) IN CSECT(I7800) LENGTH(2)
2102	IODCB	ADDRESS. HEX LOCATION(000031A4) IN CSECT(I7800) LENGTH(2)
2103	IOMOD	ADDRESS. HEX LOCATION(000031A6) IN CSECT(I7800) LENGTH(2)
37	I7800	CSECT. STAPT(00002500) LENGTH(3694) ESDID(0)
2223	LINE1	ADDRESS. HEX LOCATION(00003290) IN CSECT(I7800) LENGTH(40)
1393	LSTIO	ADDRESS. HEX LOCATION(00002E80) IN CSECT(I7800) LENGTH(2)
1370	MI	ABSOLUTE. HEX VALUE(00000020)
2194	MVBUF	ADDRESS. HEX LOCATION(00003210) IN CSECT(I7800) LENGTH(2)
1382	NG	ABSOLUTE. HEX VALUE(0000002C)
1377	NI	ABSOLUTE. HEX VALUE(00000027)
543	N00001	ADDRESS. HEX LOCATION(00002628) IN CSECT(I7800) LENGTH(2)
555	N00002	ADDRESS. HEX LOCATION(0000263E) IN CSECT(I7800) LENGTH(2)
567	N00003	ADDRESS. HEX LOCATION(00002650) IN CSECT(I7800) LENGTH(2)
573	N00004	ADDRESS. HEX LOCATION(0000265C) IN CSECT(I7800) LENGTH(2)
579	N00005	ADDRESS. HEX LOCATION(00002668) IN CSECT(I7800) LENGTH(2)
591	N00006	ADDRESS. HEX LOCATION(00002680) IN CSECT(I7800) LENGTH(2)
603	N00007	ADDRESS. HEX LOCATION(00002692) IN CSECT(I7800) LENGTH(2)
615	N00008	ADDRESS. HEX LOCATION(000026A4) IN CSECT(I7800) LENGTH(2)
627	N00009	ADDRESS. HEX LOCATION(000026B6) IN CSECT(I7800) LENGTH(2)
639	N00010	ADDRESS. HEX LOCATION(000026CE) IN CSECT(I7800) LENGTH(2)
645	N00011	ADDRESS. HEX LOCATION(000026DA) IN CSECT(I7800) LENGTH(2)
651	N00012	ADDRESS. HEX LOCATION(000026E6) IN CSECT(I7800) LENGTH(2)
657	N00013	ADDRESS. HEX LOCATION(000026F2) IN CSECT(I7800) LENGTH(2)
663	N00014	ADDRESS. HEX LOCATION(000026FE) IN CSECT(I7800) LENGTH(2)
669	N00015	ADDRESS. HEX LOCATION(0000270A) IN CSECT(I7800) LENGTH(2)
681	N00016	ADDRESS. HEX LOCATION(00002720) IN CSECT(I7800) LENGTH(2)
687	N00017	ADDRESS. HEX LOCATION(0000272C) IN CSECT(I7800) LENGTH(2)
699	N00018	ADDRESS. HEX LOCATION(00002742) IN CSECT(I7800) LENGTH(2)
705	N00019	ADDRESS. HEX LOCATION(0000274E) IN CSECT(I7800) LENGTH(2)
717	N00020	ADDRESS. HEX LOCATION(00002764) IN CSECT(I7800) LENGTH(2)
723	N00021	ADDRESS. HEX LOCATION(00002770) IN CSECT(I7800) LENGTH(2)

DECLAPED	NAME	ATTRIBUTES AND REFERENCES
735	N00022	ADDRESS. HEX LOCATION(00002786) IN CSECT(I7800) LENGTH(2)
747	N00023	ADDRESS. HEX LOCATION(00002798) IN CSECT(I7800) LENGTH(2)
753	N00024	ADDRESS. HEX LOCATION(000027A4) IN CSECT(I7800) LENGTH(2)
759	N00025	ADDRESS. HEX LOCATION(000027E0) IN CSECT(I7800) LENGTH(2)
771	N00026	ADDRESS. HEX LOCATION(000027C6) IN CSECT(I7800) LENGTH(2)
783	N00027	ADDRESS. HEX LOCATION(000027D8) IN CSECT(I7800) LENGTH(2)
789	N00028	ADDRESS. HEX LOCATION(000027E4) IN CSECT(I7800) LENGTH(2)
795	N00029	ADDRESS. HEX LOCATION(000027F0) IN CSECT(I7800) LENGTH(2)
807	N00030	ADDRESS. HEX LOCATION(00002806) IN CSECT(I7800) LENGTH(2)
819	N00031	ADDRESS. HEX LOCATION(00002818) IN CSECT(I7800) LENGTH(2)
825	N00032	ADDRESS. HEX LOCATION(00002824) IN CSECT(I7800) LENGTH(2)
831	N00033	ADDRESS. HEX LOCATION(00002830) IN CSECT(I7800) LENGTH(2)
843	N00034	ADDRESS. HEX LOCATION(00002846) IN CSECT(I7800) LENGTH(2)
849	N00035	ADDRESS. HEX LOCATION(00002852) IN CSECT(I7800) LENGTH(2)
861	N00036	ADDRESS. HEX LOCATION(00002868) IN CSECT(I7800) LENGTH(2)
867	N00037	ADDRESS. HEX LOCATION(00002874) IN CSECT(I7800) LENGTH(2)
879	N00038	ADDRESS. HEX LOCATION(0000288A) IN CSECT(I7800) LENGTH(2)
885	N00039	ADDRESS. HEX LOCATION(00002896) IN CSECT(I7800) LENGTH(2)
897	N00040	ADDRESS. HEX LOCATION(000028A8) IN CSECT(I7800) LENGTH(2)
903	N00041	ADDRESS. HEX LOCATION(000028B4) IN CSECT(I7800) LENGTH(2)
915	N00042	ADDRESS. HEX LOCATION(000028CA) IN CSECT(I7800) LENGTH(2)
921	N00043	ADDRESS. HEX LOCATION(000028D6) IN CSECT(I7800) LENGTH(2)
933	N00044	ADDRESS. HEX LOCATION(000028E8) IN CSECT(I7800) LENGTH(2)
935	N00045	ADDRESS. HEX LOCATION(000028EA) IN CSECT(I7800) LENGTH(2)
947	N00046	ADDRESS. HEX LOCATION(00002900) IN CSECT(I7800) LENGTH(2)
953	N00047	ADDRESS. HEX LOCATION(0000290C) IN CSECT(I7800) LENGTH(2)
965	N00048	ADDRESS. HEX LOCATION(00002922) IN CSECT(I7800) LENGTH(2)
977	N00049	ADDRESS. HEX LOCATION(00002934) IN CSECT(I7800) LENGTH(2)
983	N00050	ADDRESS. HEX LOCATION(00002940) IN CSECT(I7800) LENGTH(2)
989	N00051	ADDRESS. HEX LOCATION(0000294C) IN CSECT(I7800) LENGTH(2)
1001	N00052	ADDRESS. HEX LOCATION(00002962) IN CSECT(I7800) LENGTH(2)
1013	N00053	ADDRESS. HEX LOCATION(00002974) IN CSECT(I7800) LENGTH(2)
1019	N00054	ADDRESS. HEX LOCATION(00002980) IN CSECT(I7800) LENGTH(2)
1025	N00055	ADDRESS. HEX LOCATION(0000298C) IN CSECT(I7800) LENGTH(2)
1037	N00056	ADDRESS. HEX LOCATION(000029A2) IN CSECT(I7800) LENGTH(2)
1049	N00057	ADDRESS. HEX LOCATION(000029B4) IN CSECT(I7800) LENGTH(2)
1061	N00058	ADDRESS. HEX LOCATION(000029C6) IN CSECT(I7800) LENGTH(2)
1067	N00059	ADDRESS. HEX LOCATION(000029D2) IN CSECT(I7800) LENGTH(2)
1073	N00060	ADDRESS. HEX LOCATION(000029DE) IN CSECT(I7800) LENGTH(2)
1079	N00061	ADDRESS. HEX LOCATION(000029EA) IN CSECT(I7800) LENGTH(2)
1091	N00062	ADDRESS. HEX LOCATION(00002A00) IN CSECT(I7800) LENGTH(2)
1103	N00063	ADDRESS. HEX LOCATION(00002A12) IN CSECT(I7800) LENGTH(2)
1115	N00064	ADDRESS. HEX LOCATION(00002A24) IN CSECT(I7800) LENGTH(2)
1121	N00065	ADDRESS. HEX LOCATION(00002A30) IN CSECT(I7800) LENGTH(2)
1127	N00066	ADDRESS. HEX LOCATION(00002A3C) IN CSECT(I7800) LENGTH(2)
1133	N00067	ADDRESS. HEX LOCATION(00002A48) IN CSECT(I7800) LENGTH(2)
1145	N00068	ADDRESS. HEX LOCATION(00002A5E) IN CSECT(I7800) LENGTH(2)
1151	N00069	ADDRESS. HEX LOCATION(00002A6A) IN CSECT(I7800) LENGTH(2)
1163	N00070	ADDRESS. HEX LOCATION(00002A7C) IN CSECT(I7800) LENGTH(2)
1165	N00071	ADDRESS. HEX LOCATION(00002A7E) IN CSECT(I7800) LENGTH(2)
1177	N00072	ADDRESS. HEX LOCATION(00002A94) IN CSECT(I7800) LENGTH(2)
1183	N00073	ADDRESS. HEX LOCATION(00002AA0) IN CSECT(I7800) LENGTH(2)
1335	OPTN1	ADDRESS. HEX LOCATION(00002E74) IN CSECT(I7800) LENGTH(2)
1358	OPTN3	ADDRESS. HEX LOCATION(00002E78) IN CSECT(I7800) LENGTH(2)
101	PARMARA	ADDRESS. HEX LOCATION(0000196E) IN CSECT(I7800) LENGTH(1)

CROSS-REFERENCE LISTING

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DECLARED	NAME	ATTRIBUTES AND REFERENCES
69	PID	877 895 913 931 945 963 975 999 1011 1035 1047 1059 1089 1101 1113 1143 1161 1175 ADDRESS. HEX LOCATION(00001800) IN CSECT(I7800) 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 2202
2237	PIDMSG10	ABSOLUTE. HEX VALUE(0000F1F0) 2202
1452	PREP	ABSOLUTE. HEX VALUE(0000000C) 2157
1463	RELSD	ABSOLUTE. HEX VALUE(00000017) 2212
1462	REQSD	ABSOLUTE. HEX VALUE(00000016) 2145
1459	RICB	ABSOLUTE. HEX VALUE(00000013) 2214
1398	SCIID	ADDRESS. HEX LOCATION(00002E82) IN CSECT(I7800) LENGTH(2) 1677 1689 1767 2210
1450	START	ABSOLUTE. HEX VALUE(0000000A) 1922
104	SUPSTAT	ADDRESS. HEX LOCATION(000019C4) IN CSECT(I7800) LENGTH(1) 2205
1424	SVCAL	ADDRESS. HEX LOCATION(00002EB6) IN CSECT(I7800) LENGTH(2) 2144 2210 2211
92	TUMSGWTR	ADDRESS. HEX LOCATION(000018BA) IN CSECT(I7800) LENGTH(1) 2207
76	TUPARM1	ADDRESS. HEX LOCATION(0000189A) IN CSECT(I7800) LENGTH(1) 1567
98	TURESUL	ADDRESS. HEX LOCATION(000018C8) IN CSECT(I7800) LENGTH(1) 1584 1591 1592 1626
1422	TURTN	ADDRESS. HEX LOCATION(00002EB2) IN CSECT(I7800) LENGTH(2) 1560 1622 2215
74	TUSTATUS	ADDRESS. HEX LOCATION(00001818) IN CSECT(I7800) LENGTH(1) 2185
75	TUWORK	ADDRESS. HEX LOCATION(0000181A) IN CSECT(I7800) LENGTH(1) 2189 2244
1599	T3C00I	ADDRESS. HEX LOCATION(00002F30) IN CSECT(I7800) LENGTH(2) 1568 1569 1570 1571 1572 1574 1582 1591
1586	T3C00N	ADDRESS. HEX LOCATION(00002F18) IN CSECT(I7800) LENGTH(2) 1581
1591	T3C00S	ADDRESS. HEX LOCATION(00002F20) IN CSECT(I7800) LENGTH(6) 1579 1587
1592	T3C00X	ADDRESS. HEX LOCATION(00002F26) IN CSECT(I7800) LENGTH(6) 1585 1589
1431	T3C02	ADDRESS. HEX LOCATION(00002EBA) IN CSECT(I7800) LENGTH(6) 557 593 605 617 731 773 809 887 967
1628	T777	ADDRESS. HEX LOCATION(00002F4A) IN CSECT(I7800) LENGTH(2) 1629
1560	T7800	ADDRESS. HEX LOCATION(00002EC2) IN CSECT(I7800) LENGTH(4) 545 581 629 671 689 707 725 761 797 833 851 869 905 937 955 991 1027 1081 1135 1167
1622	T7805	ADDRESS. HEX LOCATION(00002F34) IN CSECT(I7800) LENGTH(4) 923 1153
1788	WRSID	ADDRESS. HEX LOCATION(00003038) IN CSECT(I7800) LENGTH(2) 1667 1756
1374	XE	ABSOLUTE. HEX VALUE(00000024) 2015 2077
1372	XI	ABSOLUTE. HEX VALUE(00000022) 1921 2062
2077	XIOCK	ADDRESS. HEX LOCATION(0000316A) IN CSECT(I7800) LENGTH(2) 1931
2084	XIOCO	ADDRESS. HEX LOCATION(0000317C) IN CSECT(I7800) LENGTH(2) 2082
1901	XIOCS	ADDRESS. HEX LOCATION(000030AC) IN CSECT(I7800) LENGTH(6) 2093
2086	XIOCV	ADDRESS. HEX LOCATION(00003180) IN CSECT(I7800) LENGTH(2) 2080
2095	XIOCX	ADDRESS. HEX LOCATION(0000319A) IN CSECT(I7800) LENGTH(4) 2087
1970	XIOER	ADDRESS. HEX LOCATION(00003108) IN CSECT(I7800) LENGTH(2) 2101
1905	XIO1	ADDRESS. HEX LOCATION(000030BC) IN CSECT(I7800) LENGTH(4) 1897
1918	XIO2	ADDRESS. HEX LOCATION(000030E2) IN CSECT(I7800) LENGTH(2) 1904
1930	XIO8	ADDRESS. HEX LOCATION(000030F6) IN CSECT(I7800) LENGTH(2) 1935
62	XTRNL	ABSOLUTE. HEX VALUE(00000001) 571 577 643 649 655 661 667 685 703 721 751 757 787 793 823 829 847 865 883 901 919 951 981 987 1017 1023 1065 1071 1077 1119 1125 1131 1149 1181 1187