

LOCTR OBJECT TEXT STMT SOURCE STATEMENT COPYRIGHT IBM CORP 1976
0014F0 3 C3803 START 5360
4 *****
5 *
6 * *** PREREQUISITES ***
7 *
8 * PRINTER ATTACHED
9 * LEVEL 4 PROCESSOR
10 *
11 *****
12 *
13 * *** MODIFICATIONS ***
14 *
15 * 1. REARRANGE OVERLAY FOR FUTURE EXPANSION.
16 *
17 *****
18 *
19 * *** REA'S INCORPORATED ***
20 *
21 * NONE
22 *
23 *****
24 *
25 * *** SPECIAL INSTRUCTIONS ***
26 *
27 * NONE
28 *
29 *****
30 *
31 * *** E. C. HISTORY ***
32 *
33 * DATE 01JUL76 DATE 01OCT76 DATE 22APR77 DATE 08AUG78
34 * E.C. 578446 E.C. 578468 E.C. 578751 E.C. 755404
35 *
36 *****
37 *
38 * SYSTEM EQUATES
39 *
40 *
41 *****
42 *
43 SM EQU 1 SUMMARY MASK DISABLE OR
44 * ENABLE CODE
45 *****
46 *
47 * EQUATED NAMES FOR SUPPORTED SVC'S
48 *
49 *****
50 OUT EQU 0 OUT SVC
51 HTOE EQU 26 HEX TO EBCDIC SVC (STRING)
52 *****
53 *
54 * EQUATES USED BY DCP
55 *
56 *****
57 *
58 STOP EQU 6 STOP AFTER MSG OUT
59 ALTDV EQU 7 ALTERNATE OUTPUT DEV ASSIGNED
60 RTMDI EQU 11 MDI RETURN REQUESTED
61 *****
62 EBBK EQU C' ' BLANK CHAR
63 *****
64 ZERO EQU 0 VALUE OF 0
65 ONE EQU 1
66 TWO EQU 2
67 THREE EQU 3
68 FOUR EQU 4
69 FIVE EQU 5
70 SEVEN EQU 7
71 NINE EQU 9
72 TEN EQU 10
73 TWNTY EQU 20
74 SIXTY EQU 60
75 SIXTY4 EQU 64
76 H1 EQU -1
77 H30 EQU -30
78 ACTYP EQU X'241' STORAGE ADDRESS FOR AC TYPE
79 *****
80 *
81 *****
82 *
83 * EQUATES FOR CODED STOPS USED BY DCP
84 * (NORMAL AND ERROR)
85 *
86 *
87 *****
88 ACNG EQU X'3801' ALTERNATE CONSOLE ERROR
89 *****
90 *
91 * THE FOLLOWING EQUATES ARE THE DISPLACEMENTS FROM THE
92 * START OF A QUE BLOCK OF THE VARIOUS INFORMATION.
93 *
94 *****
95 QR7 EQU 20 XR7 OF CALLING PROGRAM
96 QSVC EQU 22 SVC NUMBER OF CALLING PROGRAM
97 *****
98 *
99 *
100 * THE FOLLOWING AREA CONTAINS THOSE CONSTANTS AND CODE
101 * REQUIRED BY THE ALTERNATE CONSOLE ROUTINE WHICH WILL
102 * BE READ INTO STORAGE AS OVERLAYS.
103 *
104 *****
105 *
106 * NAME PRINT
107 *
108 *
109 * PURPOSE THIS ROUTINE STARTS PRINTING ON THE PRINTER
110 * WHAT IS PASSED TO THE ALTERNATE CONSOLE.
111 *
112 * METHOD THIS ROUTINE IS CALLED BY AN SVC. IT APPENDS THE
113 * PROGRAM ID ON THE FRONT OF EACH MESSAGE PASSED.
114 *
115 * CALLING SEQUENCE
116 * XR7 POINTS TO LABEL
117 *
118 * SVC OUT
119 *
120 * LABEL DC A(ADDR) START ADDR OF DATA TO PRINT
121 *
122 * THE BYTE IMMEDIATELY PRECEEDING THE LABEL IS CHECKED.
123 * BIT 0 = 0 - PRINT HEADER.
124 * 1 - DON'T PRINT HEADER WITH THIS MESSAGE.

LOCTR OBJECT TEXT STMT SOURCE STATEMENT COPYRIGHT IBM CORP 1976
125 * BIT 1 = 0 - INFORMATION MESSAGE *
126 * 1 - ERROR MESSAGE *
127 *
128 * THE SVC 'OUTIN' ALSO ENTERS THIS ROUTINE.
129 *
130 *****
131 PRINT EQU *
132 MVW R1,PRTSW SET PRINT BUSY
133 MVB R1,NLSW T/ON NEW LINE SWITCH
134 MVBZ ACPCS,R0 RESET MESSAGE PROCESSED SWITCH
135 PR01 SET UP TO ISSUE I/O
136 *****
137 *
138 * THIS ROUTINE HANDLES INTERRUPTS FROM THE PRINTER
139 *
140 *****
141 *
142 PR00 EQU *
143 DIS SM DISABLE INTERRUPTS
144 BNCC THREE,PR70 BR/IF NOT DEV END INT
145 PR01 EQU *
146 RBSWI RETRY,WRCTL RESET RETRY INDICATOR IN DCB
147 ONE,WRSKP RESET FOR SPACE 1 LINE
148 MVBZ PRAT,R0 CYCLE STEAL STATUS IN PROGRESS
149 BNZ PR80 BR/YES
150 MVW PRTSW,R1 GET ADDR QUE BLOCK
151 MVW RPSV,R3 GET DIAGNOSTIC PROGRAM DATA ADDR
152 MVB ACPCS,R4 MESSAGE BEEN PROCESSED
153 JNZ PR30 BR/YES
154 PR10 EQU *
155 MVBZ EBBK,R0 INITIAL BLANK FOR BUFFER
156 MVBZ SIXTY+TWNTY,R7 LENGTH OF BUFFER
157 MVA PRTB,R4 ADDR PRINT BUFFER
158 R0,(R4) BLANK OUT BUFFER
159 PRBA,R0 PRINT BLANK LINE AFTER ENTER
160 JNZ PR20 BR/IF YES
161 MVBZ NLSW,R0 NEW LINE SW ON-IF SO TURN OFF
162 JZ PR20 BR/IF NOT
163 MVB GRPT1,R0 BYPASS HEADER PRINT
164 JN PR20 BR/YES-DON'T PRINT HEADER
165 MVA PRTB,R2 PRINT BUFFER ADR
166 MVA HLTCV,R7 ADR OF CONTROL BLOCK
167 SVC HTOE GO CONVERT
168 MVA HALCV,R7 ADR OF CONTROL BLOCK
169 SVC HTOE GO CONVERT
170 MVB ACPRG*,(R2)+ MOVE IDENTIFIER
171 MVBZ FOUR,R6 BYTES TO MOVE
172 MVA PRD,R6 ADR OF I.D.
173 MVBZ (R6),(R2) MOVE THE PROG NAME
174 MVBZ TWNTY,R7 LENGTH OF RTN AND CK PT MSG
175 MVA MSG8,R6 ADDR MESSAGE
176 MVBZ (R6),(R2) MOVE MESSAGE INTO PRINT BUFFER
177 J PR24 PRINT THE HEADER
178 PR20 EQU *
179 MVBZ SIXTY4,R7 SET TO MOVE 64 BYTES
180 MVW R7,R6 SAVE MAX NUMBER BYTES TO MOVE
181 MVBZ ZERO,R0 END OF MESSAGE CHAR
182 SFEN R0,(R3) COMPUTE LENGTH OF MESSAGE
183 JNE PR21 BR/IF EOM CHARACTER FOUND
184 ABI R1,R3 ADDRESS OF EOM CHARACTER
185 EQU *
186 PR21 EQU *
187 R7,R6 GET LENGTH OF MESSAGE
188 JZ PR30 BR/IF DONE
189 SW R6,R3 GET ADDR OF MESSAGE AGAIN
190 MVW R6,R7 BYTES TO MOVE INTO BUFFER
191 MVA PRTB,R4 GET ADDRESS OF BUFFER
192 MVBZ (R3),(R4) MOVE DATA INTO PRINT BUFFER
193 PR24 EQU * R4,ACPCS INDICATE MESSAGE PROCESSED
194 MVA * WIDCB,R6 PRINT IDCB ADDR
195 EQU *
196 PR25 EQU *
197 BAL PRIO,R7 GO ISSUE I/O AND CHECK COND
198 J PR60 RETURN TO SCHEDULER
199 PR30 EQU *
200 ENT5W,AC5VP* ENTER MESSAGE FINISHED
201 JE PR51 BR/IF YES
202 CB (R1,QSVC),OUT1 SEE IF OUTIN SVC
203 JE PR50 BR/YES-CONTINUE
204 MVWZ PRTSW,R0 RESET PRINT BUSY SWITCH
205 MVA ACIND*,R7 ADR OF DCP IND
206 TBT (R7,STOP) IS STOP AFTER ERR MSG ON
207 JOFF PR40 BR/NO
208 MVA GRPT,R7 ADR FROM MSG INDICATORS
209 TBT (R7,NINE) IS THIS R ERR MSG
210 PR40 EQU * PR60 BR/YES-WAIT FOR OPERATOR
211 B *
212 PR50 EQU *
213 MVBZ NLSW,R3 AC5VP*,ENT5W RETURN
214 *
215 *
216 *
217 MVA ENTER,R3 ENTER,R3
218 PR51 EQU *
219 MVBZ PRBA,R0 BLANK LINE BEEN PRINTED
220 JNZ PR53 BR/IF YES
221 MVB R4,PRBA SET SW TO PRINT BLANK LINE
222 MVBZ THREE,WR5KP SET SPACE 3 LINES
223 CB PRTP,ACTYP PRINTER TYPE EQUAL DEFAULT
224 JE PR52 BR/NO-CHANGE SKIP VALUE
225 MVBZ FIVE,WR5KP SET SPACE 5 LINES
226 PR52 EQU *
227 J PR10 PRINT IT
228 *
229 PR53 EQU *
230 MVWZ ENT5W,R0 RESET ENTER SWITCH
231 CB (R1,QSVC),OUT1 OUT/IN SVC
232 JNE PR60 BR/NO
233 MVA ACIND*,R7 ADR OF DCP INDICATORS
234 TBTR (R7,RTMDI) MDI IMMEDIATE RETURN
235 JNZ PR40 BR/YES
236 PR60 EQU *
237 B ACSCH* RETURN TO SCHEDULER
238 *
239 PR70 EQU *

LOC TR OBJECT TEXT STMT SOURCE STATEMENT COPYRIGHT IBM CORP 1976
001600 6C04 15FC 240 BCC FOUR,PR60 ATTENTION INTRPT IGNORED
001604 6A05 1642 241 BNCC TWO,PRNG BR/INTRPT COND CODE BAD
...
001716 4040404040404040 360 PR TBU DC 80C ' 80 CHARACTER PRINT BUFFER

LOC TR OBJECT TEXT STMT SOURCE STATEMENT COPYRIGHT IBM CORP 1976
001720 361 PR TBF EQU PR TBU+TEN
362 *****
363 *
364 * PRINTER ALTERNATE CONSOLE ROUTINE ENTRY POINTS
...
471 END

CROSS-REFERENCE LISTING

COPYRIGHT IBM CORP 1976

DECLARED	NAME	ATTRIBUTES AND REFERENCES
406	ACCON	ADDRESS. HEX LOCATION(0000178A) IN CSECT(C3803) LENGTH(1)
347	ACEND	ADDRESS. HEX LOCATION(000016B0) IN CSECT(C3803) LENGTH(1)
414	ACFCS	ADDRESS. HEX LOCATION(00001794) IN CSECT(C3803) LENGTH(1)
402	ACIND	ADDRESS. HEX LOCATION(00001782) IN CSECT(C3803) LENGTH(1)
465	ACNGM	ADDRESS. HEX LOCATION(000017FE) IN CSECT(C3803) LENGTH(1)
387	ACPRE	ADDRESS. HEX LOCATION(0000177C) IN CSECT(C3803) LENGTH(2)
457	ACPRG	ADDRESS. HEX LOCATION(000017EA) IN CSECT(C3803) LENGTH(1)
390	ACPR3	ADDRESS. HEX LOCATION(0000177F) IN CSECT(C3803) LENGTH(1)
383	ACRES	ADDRESS. HEX LOCATION(00001774) IN CSECT(C3803) LENGTH(2)
348	ACS	ADDRESS. HEX LOCATION(00001716) IN CSECT(C3803) LENGTH(1)
401	ACSCH	ADDRESS. HEX LOCATION(00001780) IN CSECT(C3803) LENGTH(1)
407	ACSTR	ADDRESS. HEX LOCATION(0000178C) IN CSECT(C3803) LENGTH(1)
403	ACSVP	ADDRESS. HEX LOCATION(00001784) IN CSECT(C3803) LENGTH(1)
404	ACSVR	ADDRESS. HEX LOCATION(00001786) IN CSECT(C3803) LENGTH(1)
80	ACTYP	ABSOLUTE. HEX VALUE(00000241)
408	ACVTR	ADDRESS. HEX LOCATION(0000178E) IN CSECT(C3803) LENGTH(1)
59	ALTDV	ABSOLUTE. HEX VALUE(00000007)
312	CRDCB	ADDRESS. HEX LOCATION(00001680) IN CSECT(C3803) LENGTH(1)
298	CSBUF	ADDRESS. HEX LOCATION(00001674) IN CSECT(C3803) LENGTH(2)
336	CSDCB	ADDRESS. HEX LOCATION(000016A0) IN CSECT(C3803) LENGTH(1)
3	C3803	CSECT. START(000014F0) LENGTH(784) ESDID(1)
425	DEAT	ADDRESS. HEX LOCATION(000017A2) IN CSECT(C3803) LENGTH(1)
62	EBBK	ABSOLUTE. HEX VALUE(00000040)
301	ENTER	ADDRESS. HEX LOCATION(00001678) IN CSECT(C3803) LENGTH(5)
423	ENTSW	ADDRESS. HEX LOCATION(0000179E) IN CSECT(C3803) LENGTH(1)
69	FIVE	ABSOLUTE. HEX VALUE(00000005)
68	FOUR	ABSOLUTE. HEX VALUE(00000004)
299	FRMOV	ABSOLUTE. HEX VALUE(0000001E)
420	GRPT	ADDRESS. HEX LOCATION(0000179A) IN CSECT(C3803) LENGTH(1)
421	GRPT1	ADDRESS. HEX LOCATION(0000179B) IN CSECT(C3803) LENGTH(1)
436	HALCV	ADDRESS. HEX LOCATION(000017B2) IN CSECT(C3803) LENGTH(1)
295	HEXFO	ADDRESS. HEX LOCATION(00001673) IN CSECT(C3803) LENGTH(1)
432	HLTCV	ADDRESS. HEX LOCATION(000017AC) IN CSECT(C3803) LENGTH(1)
51	HTOE	ABSOLUTE. HEX VALUE(0000001A)
444	IDCB	ADDRESS. HEX LOCATION(000017BE) IN CSECT(C3803) LENGTH(1)
449	MSG8	ADDRESS. HEX LOCATION(000017D0) IN CSECT(C3803) LENGTH(1)
77	M1	ABSOLUTE. HEX VALUE(FFFFFFF)
78	M30	ABSOLUTE. HEX VALUE(FFFFFFE2)
71	NINE	ABSOLUTE. HEX VALUE(00000009)
411	NLSW	ADDRESS. HEX LOCATION(00001792) IN CSECT(C3803) LENGTH(1)
65	ONE	ABSOLUTE. HEX VALUE(00000001)
50	OUT	ABSOLUTE. HEX VALUE(00000000)
412	OUT1	ADDRESS. HEX LOCATION(00001793) IN CSECT(C3803) LENGTH(1)
468	PID	ADDRESS. HEX LOCATION(00001800) IN CSECT(C3803) LENGTH(1)
410	PRBA	ADDRESS. HEX LOCATION(00001790) IN CSECT(C3803) LENGTH(1)
131	PRINT	ADDRESS. HEX LOCATION(000014F0) IN CSECT(C3803) LENGTH(1)
261	PRI0	ADDRESS. HEX LOCATION(00001628) IN CSECT(C3803) LENGTH(1)
271	PRNG	ADDRESS. HEX LOCATION(00001642) IN CSECT(C3803) LENGTH(1)
280	PRNG1	ADDRESS. HEX LOCATION(0000165A) IN CSECT(C3803) LENGTH(1)
361	PRTBF	ADDRESS. HEX LOCATION(00001720) IN CSECT(C3803) LENGTH(1)
360	PRTBU	ADDRESS. HEX LOCATION(00001716) IN CSECT(C3803) LENGTH(1)
422	PRTSW	ADDRESS. HEX LOCATION(0000179C) IN CSECT(C3803) LENGTH(1)
303	PRTYP	ADDRESS. HEX LOCATION(0000167E) IN CSECT(C3803) LENGTH(1)
142	PR00	ADDRESS. HEX LOCATION(000014FE) IN CSECT(C3803) LENGTH(1)

CROSS-REFERENCE LISTING

COPYRIGHT IBM CORP 1976

DECLARED	NAME	ATTRIBUTES AND REFERENCES
145	PR01	ADDRESS. HEX LOCATION(00001504) IN CSECT(C3803) LENGTH(1)
154	PR10	ADDRESS. HEX LOCATION(00001526) IN CSECT(C3803) LENGTH(1)
178	PR20	ADDRESS. HEX LOCATION(00001568) IN CSECT(C3803) LENGTH(1)
185	PR21	ADDRESS. HEX LOCATION(00001574) IN CSECT(C3803) LENGTH(1)
193	PR24	ADDRESS. HEX LOCATION(00001586) IN CSECT(C3803) LENGTH(1)
195	PR25	ADDRESS. HEX LOCATION(0000158A) IN CSECT(C3803) LENGTH(1)
198	PR30	ADDRESS. HEX LOCATION(00001590) IN CSECT(C3803) LENGTH(1)
210	PR40	ADDRESS. HEX LOCATION(000015B4) IN CSECT(C3803) LENGTH(1)
212	PR50	ADDRESS. HEX LOCATION(000015B8) IN CSECT(C3803) LENGTH(1)
219	PR51	ADDRESS. HEX LOCATION(000015C8) IN CSECT(C3803) LENGTH(1)
227	PR52	ADDRESS. HEX LOCATION(000015E6) IN CSECT(C3803) LENGTH(1)
229	PR53	ADDRESS. HEX LOCATION(000015E8) IN CSECT(C3803) LENGTH(1)
236	PR60	ADDRESS. HEX LOCATION(000015FC) IN CSECT(C3803) LENGTH(1)
239	PR70	ADDRESS. HEX LOCATION(00001600) IN CSECT(C3803) LENGTH(1)
248	PR60	ADDRESS. HEX LOCATION(00001618) IN CSECT(C3803) LENGTH(1)
95	QR7	ABSOLUTE. HEX VALUE(00000014)
96	QSVK	ABSOLUTE. HEX VALUE(00000016)
389	RETRY	ABSOLUTE. HEX VALUE(00000001)
385	RIDCB	ADDRESS. HEX LOCATION(00001778) IN CSECT(C3803) LENGTH(2)
442	RPSV	ADDRESS. HEX LOCATION(000017BC) IN CSECT(C3803) LENGTH(1)
60	RTMDI	ABSOLUTE. HEX VALUE(0000000B)
0	R0	REGISTER. HEX VALUE(00000000) 161 163 181 182
0	R1	REGISTER. HEX VALUE(00000001) 284 285 286
0	R2	REGISTER. HEX VALUE(00000002)
0	R3	REGISTER. HEX VALUE(00000003)
0	R4	REGISTER. HEX VALUE(00000004) 213 217
0	R6	REGISTER. HEX VALUE(00000006) 192 222
0	R7	REGISTER. HEX VALUE(00000007) 186 188 189 194
70	SEVEN	ABSOLUTE. HEX VALUE(00000007) 179 180 186 189
74	SIXTY	ABSOLUTE. HEX VALUE(0000003C) 233 234 243 243
75	SIXTY4	ABSOLUTE. HEX VALUE(00000040) 274 279 282 286
43	SM	ABSOLUTE. HEX VALUE(00000001)
58	STOP	ABSOLUTE. HEX VALUE(00000006)
72	TEN	ABSOLUTE. HEX VALUE(0000000A)
67	THREE	ABSOLUTE. HEX VALUE(00000003)
73	TWNTY	ABSOLUTE. HEX VALUE(00000014)
66	TWO	ABSOLUTE. HEX VALUE(00000002)
379	WIDCB	ADDRESS. HEX LOCATION(0000176C) IN CSECT(C3803) LENGTH(2)
325	WRCTL	ADDRESS. HEX LOCATION(00001690) IN CSECT(C3803) LENGTH(2)
324	WRDCB	ADDRESS. HEX LOCATION(00001690) IN CSECT(C3803) LENGTH(1)
327	WRSKP	ADDRESS. HEX LOCATION(00001694) IN CSECT(C3803) LENGTH(2)
64	ZERO	ABSOLUTE. HEX VALUE(00000000) 181

***** LAST PAGE *****