

LOCTR OBJECT TEXT STMT SOURCE STATEMENT COPYRIGHT IBM CORP 1976
001E00 3 C380C START 7680
4 *****
5 *
6 * *** PREREQUISITES ***
7 *
8 * LEVEL 4 PROCESSOR
9 * ALTERNATE CONSOLE
10 *
11 *****
12 *
13 * *** MODIFICATIONS ***
14 *
15 * 1. ADD SUPPORT FOR REMOTE DISPLAY STATION ALTERNATE CONSOLE.
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 01JUL77 DATE 15SEP77 DATE 20JAN78 DATE 08AUG78
34 * E.C. 578980 E.C. 754882 E.C. 755331 E.C. 755404
35 *
36 * DATE 06NOV78 DATE 15JAN79 DATE DATE
37 * E.C. 755551 E.C. 375147 E.C.
38 *
39 *****
40 *
41 * NAME C380C - ALTERNATE CONSOLE SETUP
42 *
43 *
44 * PURPOSE TO SETUP THE REQUIRED AREAS TO SUPPORT THE
45 * ALTERNATE CONSOLE USED BY DCP AND ECP.
46 *
47 * METHOD THE PROGRAM WILL WRITE AN IMAGE STORE AND A
48 * CONTROL STORE TO THE ATTACHMENT CARD. IT WILL
49 * THEN DETERMINE IF THE FIELD TABLE HAS BEEN
50 * CREATED AND SAVED. IF ONE HAS IT WILL BE
51 * DETERMINED IF THAT ONE SHOULD BE USED OR A NEW
52 * ONE CREATED. IF IT CAN BE USED THEN THE FIELD
53 * TABLE WILL BE WRITTEN TO THE ATTACHMENT CARD.
54 * IF A NEW ONE MUST BE CREATED THEN A PROMPTING
55 * MODE WILL BE ENTERED WITH THE OPERATOR RESPONDING
56 * BY DEPRESSING A (AND ONLY ONE) KEY TO REPRESENT
57 * THE KEY BEING REQUESTED BY THE PROGRAM.
58 *
59 *****
60 *
61 * CONSOLE LED DISPLAY ACTION/DISPLAY CODES
62 *
63 *
64 *
65 *
66 *
67 * CODE0 EQU X'3816' CHANGE KEYBOARD DEFINITION
68 * CODE1 EQU X'3817' DISPLAY STATION KEYBOARD DEFINITION
69 *
70 *****
71 *
72 * SVC'S
73 *
74 *****
75 * OUT EQU 0 OUTPUT A MESSAGE
76 * IDLES EQU 3 DELAY 500 U SECONDS
77 * CHNGE EQU 4 CHANGE THE LEVEL OF THE PROGRAM
78 * READI EQU 31 READ DATA SET INTO STORAGE
79 * WRITI EQU 32 WRITE DATA SET ONTO DISKETTE
80 *
81 *****
82 *
83 * PROGRAM EQUATES
84 *
85 *****
86 * ZERO EQU 0 VALUE OF 0
87 * ONE EQU 1 1
88 * TWO EQU 2 2
89 * THREE EQU 3 3
90 * FOUR EQU 4 4
91 * FIVE EQU 5 5
92 * SEVEN EQU 7 7
93 * EIGHT EQU 8 8
94 * TEN EQU 10 10
95 * TWLVE EQU 12 12
96 * SIXTN EQU 16 16
97 * THRT2 EQU 32 32
98 * ONE12 EQU 112 112
99 * TWO56 EQU 256 256
100 * THR84 EQU 384 384
101 * SEV68 EQU 768 768
102 * DSHRT EQU 1586 1586 - .8 SECONDS
103 * DHED EQU 9910 9910 - 5 SECONDS
104 * DLONG EQU 29730 29730 - 15 SECONDS
105 * HFF00 EQU 65280 65280
106 * HFFFP EQU 65535 65535
107 *
108 *****
109 *
110 * EQUATED STORAGE AREAS USED BY THIS PROGRAM
111 *
112 *****
113 * ADEVT EQU 48 DEVICE VECTORS STARTING ADDRESS
114 * INDIC EQU 564 DCP INDICATOR ADDRESS
115 * OPADR EQU 576 CONSOLE DEVICE ADDR ADDRESS
116 * OPTYP EQU 577 CONSOLE DEVICE TYPE ADDRESS
117 * SCHED EQU 584 DCP SCHEDULAR ROUTINE ADDRESS
118 * OPSDB EQU 587 REMOTE DISPLAY SUB-ADDR ADDRESS
119 * WRDCB EQU 5834 REMOTE DISPLAY SUB-ADDR DCB ADDRESS
120 * WRSAD EQU WRDCB+3 REMOTE DISPLAY SUB-ADDR DCB ADDRESS
121 * WCSAD EQU WRDCB+35 REMOTE DISPLAY SUB-ADDR DCB ADDRESS

003816
003817

000000
000003
000004
000007
00001F
000020

000000
000001
000002
000003
000004
000007
000008
00000A
00000C
000010
000020
000070
000100
000180
000300
000630
0026B6
007422
00PF00
00PFFF

000030
000234
000240
000241
000248
00024B
0016CA
0016CD
0016ED

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0016F1 122 RDSAD EQU WRDCB+39 REMOTE DISPLAY SUB-ADDR DCB ADDRESS
0016FE 123 DTSTG EQU 5886 REMOTE DISPLAY DATA STRING ADDRESS
001704 124 DTST1 EQU DTSTG+6 REMOTE DISPLAY SCREEN SIZE ADDRESS
00170A 125 DTST2 EQU DTSTG+12 REMOTE DISPLAY SCREEN SIZE ADDRESS
001763 126 DTST3 EQU DTSTG+101 REMOTE DISPLAY SCREEN SIZE ADDRESS
001765 127 DTST4 EQU DTSTG+103 REMOTE DISPLAY SCREEN SIZE ADDRESS
00176A 128 ACINT EQU 5994 CONSOLE DEVICE INTERRUPT ADDRESS
00176C 129 WIDCB EQU 5996 CONSOLE IDCB START ADDRESS
001770 130 COMMN EQU 6000 CONSOLE COMMON INTRPT IDCB ADDRESS
001774 131 ACRES EQU 6004 CONSOLE RESET IDCB ADDRESS
00177C 132 ACPRE EQU 6012 CONSOLE PREPARE IDCB ADDRESS
00178C 133 ACSTR EQU 6028 STRAY INTERRUPT POINTER ADDRESS
00178E 134 ACVTR EQU 6030 CONSOLE INTERRUPT VECTOR ADDRESS
001788 135 PGCTL EQU 6072 DISPLAY CONSOLE PAGE CONTROL
00178E 136 IDCB EQU 6078 LAST IDCB ISSUED ADDRESS
003040 137 RMBUF EQU 12352 REMOTE DISPLAY BUFFER ADDRESS
003280 138 RMTD EQU RMBUF+576 TRANSFER IDENTIFIER CODES TABLE
003300 139 RMELC EQU RMBUF+104 EBCDIC LOWER CASE TABLE
003380 140 RMEUC EQU RMBUF+832 EBCDIC UPPER CASE TABLE
003500 141 RMSPL EQU RMBUF+1216 STATION PARM LIST SECTION
0035FE 142 RMDEV EQU RMBUF+1470 DEVICE ADDRESS/TYPE SAVE AREA
000040 143 SPLLN EQU 64 STATION PARM LIST LENGTH
003000 144 CTBUF EQU 12288 CONFIGURATION TABLE BUFFER ADDRESS
003000 145 IMBUF EQU 12288 CHARACTER IMAGE BUFFER ADDRESS
003000 146 CSBUF EQU 12288 CONTROL STORE BUFFER ADDRESS
003C00 147 FTBUF EQU 15360 FUNCTION TABLE BUFFER ADDRESS
003C00 148 FT EQU FTBUF+0 FUNCTION SECTION
003D00 149 CT EQU FTBUF+256 CHARACTER SECTION
003E00 150 IT EQU FTBUF+512 INTERRUPT CODE SECTION
003E2E 151 CKSUM EQU 16382 CHECKSUM BUFFER ADDRESS
000004 153 LODED EQU 4 PROGRAM LOADED
000006 154 STOP EQU 6 STOP AFTER MESSAGE OUT
000007 155 ALTDV EQU 7 ALTERNATE OUTPUT DEVICE ASSIGNED
000005 157 ACIDN EQU 5 NUMBER OF CONSOLE IDCB'S
159 *****
160 *
161 * PROGRAM STARTS HERE
162 *
163 *****
164 * ENTRY MVW R7,ERRET SAVE ERROR RETURN ADDRESS TO DCP
165 * ABT TMO,R7 GOOD RETURN ADDRESS
166 * MVW R7,RETRN SAVE RETURN ADDRESS TO DCP
167 * B ALTCN BRANCH AROUND CONSTANT AREA
169 *****
170 *
171 * MESSAGES USED BY PROGRAM
172 *
173 *****
174 *
175 * OPERATIONAL SETUP MESSAGES
176 *
177 * DC A(CODE0) MESSAGE CODE
178 * PSTMG DC A(CODE5) ANY KEY WITHIN 15 SECONDS TO CHANGE KEYBOARD '
179 * DC C'DEFINITION.'
180 * DC X'0080' EOM AND MESSAGE CONTROL
181 * DC A(FSTMG) MESSAGE ADDRESS
182 * DC A(CODE1) MESSAGE CODE
183 * DC A(CODE1) MESSAGE CODE
184 * DC C'DEFINE KEYBOARD '
185 * DC X'0080' EOM AND MESSAGE CONTROL
186 * DC A(SECMG) MESSAGE ADDRESS
187 * DC A(CODE1) MESSAGE CODE
188 * DC TRDMG DC C'PRESS ONLY THE KEY REQUESTED'
189 * DC X'0080' EOM AND MESSAGE CONTROL
190 * DC TRDMA DC A(TRDMG) MESSAGE ADDRESS
191 * DC A(CODE1) MESSAGE CODE
192 * DC C'ATTENTION '
193 * DC X'0080' EOM AND MESSAGE CONTROL
194 * DC FORMG DC A(FORMG) MESSAGE ADDRESS
195 * DC X'0080' EOM AND MESSAGE CONTROL
196 * DC FORMC DC A(FORMC) MESSAGE ADDRESS
197 * DC A(CODE1) MESSAGE CODE
198 * DC C'ENTER '
199 * DC X'0080' EOM AND MESSAGE CONTROL
200 * DC A(FIVMG) MESSAGE ADDRESS
201 * DC A(FIVMG) MESSAGE ADDRESS
202 * DC A(CODE1) MESSAGE CODE
203 * DC A(CODE1) MESSAGE CODE
204 * DC SIXMG DC C'PROGRAM FUNCTION (PF
205 * DC X'0080' EOM AND MESSAGE CONTROL
206 * DC SIXXA DC A(SIXMG) MESSAGE ADDRESS
207 * DC A(CODE1) MESSAGE CODE
208 * DC C'MOVE CURSOR LEFT'
209 * DC X'0080' EOM AND MESSAGE CONTROL
210 * DC SEVMA DC A(SEVMG) MESSAGE ADDRESS
211 * DC A(CODE1) MESSAGE CODE
212 * DC A(CODE1) MESSAGE CODE
213 * DC EGHMG DC C'MOVE CURSOR RIGHT '
214 * DC X'0080' EOM AND MESSAGE CONTROL
215 * DC EGHMA DC A(EGHMG) MESSAGE ADDRESS
216 * DC A(CODE1) MESSAGE CODE
217 * DC NINMG DC C'SPACE OR BLANK'
218 * DC X'0080' EOM AND MESSAGE CONTROL
219 * DC A(NINMG) MESSAGE ADDRESS
220 * DC NINMA DC A(NINMG) MESSAGE ADDRESS
221 * DC A(CODE1) MESSAGE CODE
222 * DC TENMG DC C'
223 * DC TENMA DC X'0080' EOM AND MESSAGE CONTROL
224 * DC A(TENMG) MESSAGE ADDRESS
225 * DC A(CODE1) MESSAGE CODE
226 * DC ELVMG DC C'NO KEYBOARD INTERRUPT WITHIN 15 SECONDS '
227 * DC X'0080' EOM AND MESSAGE CONTROL
228 * DC A(ELVMG) MESSAGE ADDRESS
229 * DC ELVMA DC A(ELVMG) MESSAGE ADDRESS
230 *
231 *****
232 *
233 * I/O CONTROL IDCB'S
234 *
235 *
236 *
237 *****
238 * BLANK IDCB FILLED IN BY ROUTINE
239 * BIDCB DC X'0000' BLANK IDCB
240 * BIDC1 EQU BIDCB+ONE
241 * DC A(0)
242 * START IMAGE STORE IDCB - DISPLAY STATION
243 * IIDCB DC X'7100' START IMAGE STORE IDCB
244 * IIDC1 EQU IIDCB+ONE
245 * DC A(IIDCB)
246 * START CONTROL STORE IDCB - DISPLAY STATION
247 * CIDCB DC X'7200' START CONTROL STORE IDCB
248 * CIDC1 EQU CIDCB+ONE
249 * DC A(CSDCB)
250 * START CONTROL STORE IDCB - DISPLAY STATION

001E00 6F0D 20DE
001E04 0702
001E06 6F0D 20E0
001E0A 6802 2268

001E0F 3816
001E10 D7D9C5E2E240C1D5E
001E43 C4C5C6C9D5C9E3C9D
001E4E 0080
001E50 1E10
001E52 3817
001E54 C4C5C6C9D5C540D2C
001E64 0080
001E66 1E54
001E68 3817
001E6A D7D9C5E2E240D6D5D
001E86 0080
001E88 1E6A
001E9A 3817
001EBC C1E3E3C5D5E3C9D6D
001E96 0080
001E98 1E8C
001E9A 3817
001E9C C5D5E3C5D940
001EA2 0080
001EA4 1E9C
001EA6 3817
001EA8 D7D9D6C7D9C1D440C
001EBE 0080
001EC0 1EA9
001EC2 3817
001EC4 D4D6E5C540C3E4D9E
001ED4 0080
001ED6 1EC4
001ED8 3817
001EDA D4D6E5C540C3E4D9E
001EEC 0080
001EEE 1EDA
001EF0 3817
001EF2 E2D7C1C3C540D6D94
001F00 0080
001F02 1EF2
001F04 3817
001F06 4040
001F08 0080
001FOA 1F06
001FOC 3817
001F0E D5D640D2C5E8C2D6C
001F36 0080
001F38 1F0E

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001F46 7200 251 FIDCB DC X'7200' START CONTROL STORE IDCB
001F47 1F82 252 FIDC1 EQU FIDCB+ONE
001F48 253 DC A(FTDCB)
001F4A 7200 254 * START CONTROL STORE IDCB - REMOTE DISPLAY STATION
001F4B 7200 255 XIDCB DC X'7200' START CONTROL STORE IDCB
001F4C 1F92 256 XIDC1 EQU XIDCB+ONE
001F4E 7000 257 DC A(XSDCB)
001F4F 7000 258 * START IDCB - REMOTE DISPLAY STATION
001F50 1FA2 259 YIDCB DC X'7000' START CONTROL STORE IDCB
001F52 2000 260 YIDC1 EQU YIDCB+ONE
001F53 0000 261 DC A(YWDCB)
001F54 0000 262 * READ ID IDCB
001F55 6000 263 RIDCB DC X'2000' READ ID IDCB
001F56 6000 264 RIDC1 EQU RIDCB+ONE
001F57 0005 265 RIDC2 DC A(*-*)
001F58 0005 266 * PREPARE IDCB
001F5A 6000 267 PIDCB DC X'6000' PREPARE IDCB
001F5B 6000 268 PIDC1 EQU PIDCB+ONE
001F5C 0000 269 DC A(5)
001F5E 6F00 270 * UN-PREPARE IDCB
001F5F 0000 271 UIDCB DC X'6000' UN-PREPARE IDCB
001F60 0000 272 UIDC1 EQU UIDCB+ONE
001F61 0000 273 DC A(0)
001F62 0000 274 * RESET IDCB
001F63 0000 275 SIDCB DC X'6F00' RESET IDCB
001F64 0000 276 SIDC1 EQU SIDCB+ONE
001F65 0000 277 DC A(0)
001F66 0000 278 *****
001F67 0000 279 * I/O CONTROL DCB'S
001F68 0000 280 *
001F69 0000 281 *
001F70 0000 282 *
001F71 0000 283 *****
001F72 0000 284 * START IMAGE STORE DCB - DISPLAY STATION
001F73 8000 285 IMDCB DC A(0) DCB CONTROL WORD
001F74 8000 286 DC A(0) CHARACTER GENERATOR ADDRESS
001F75 0000 287 DC A(0) NOT USED
001F76 0000 288 DC A(0) NOT USED
001F77 0000 289 DC A(0) NOT USED
001F78 0000 290 DC A(0) CHAIN ADDRESS
001F79 0000 291 DC A(2048) BYTE COUNT
001F80 0000 292 DC A(IMBUF) DATA ADDRESS
001F81 0000 293 * START CONTROL STORE DCE - DISPLAY STATION
001F82 0000 294 CSDCB DC A(0) DCB CONTROL WORD
001F83 8000 295 DC A(32768) CHARACTER GENERATOR ADDR + E BIT
001F84 0000 296 DC A(0) NOT USED
001F85 0000 297 DC A(0) NOT USED
001F86 0000 298 DC A(0) NOT USED
001F87 0000 299 DC A(0) CHAIN ADDRESS
001F88 0000 300 DC A(4096) BYTE COUNT
001F89 0000 301 DC A(CSBUF) DATA ADDRESS
001F90 3C00 302 * START CONTROL STORE DCE - DISPLAY STATION
001F91 0000 303 FTDCB DC A(0) DCB CONTROL WORD
001F92 8C00 304 DC A(35840) CHARACTER GENERATOR ADDR + E BIT
001F93 0000 305 DC A(0) NOT USED
001F94 0000 306 DC A(0) NOT USED
001F95 0000 307 DC A(0) NOT USED
001F96 0000 308 DC A(0) CHAIN ADDRESS
001F97 0000 309 DC A(1024) BYTE COUNT
001F98 0400 310 DC A(FTBUF) DATA ADDRESS
001F99 3C00 311 * START CONTROL STORE DCB/COMPUTE CHECKSUM - REMOTE DISPLAY STATION
001FA0 0001 312 XSDCB DC A(1) DCB CONTROL WORD
001FA1 8040 313 DC A(32832) CONTROL STORE ADDRESS
001FA2 0000 314 DC A(0) NOT USED
001FA3 0000 315 DC A(0) NOT USED
001FA4 0000 316 DC A(0) NOT USED
001FA5 0000 317 DC A(0) CHAIN ADDRESS
001FA6 0000 318 DC A(4032) BYTE COUNT
001FA7 0000 319 DC A(RMBUF) DATA ADDRESS
001FA8 3040 320 * WRITE DATA STRING DCB - REMOTE DISPLAY STATION
001FA9 0000 321 YWDCB DC A(0) DCB CONTROL WORD
001FAB 27 322 YWCM DC X'27' STATION COMMAND MODIFIER
001FAC 00 323 YWSAD DC X'00' STATION ADDRESS
001FAD 0000 324 DC A(0) NOT USED
001FAE 0000 325 DC A(0) NOT USED
001FAF 0000 326 DC A(0) STATUS ADDRESS
001F00 0000 327 DC A(0) CHAIN ADDRESS
001F01 0012 328 DC A(18) BYTE COUNT
001F02 1FB2 329 DC A(YDSTG) DATA ADDRESS
001F03 0000 330 *****
001F04 0000 331 * REMOTE DISPLAY DATA STRINGS
001F05 0000 332 *
001F06 0000 333 *
001F07 0000 334 *
001F08 0000 335 *****
001F09 0000 336 * DATA STRINGS TO TEST FOR 12/24 LINE SCRPFN
001F10 0440 337 * 24 LINE SCREEN
001F11 04114008111750 338 YDSTG DC X'0440' CLEAR SCREEN
001F12 1D4020200050 339 DC X'04114008111750' FORMAT BOTTOM LINE
001F13 131801 340 DC X'1D4020200050' FOR INPUT FIELD
001F14 0000 341 DC X'131801' POSITION CURSOR BOTTOM LINE
001F15 0000 342 DTST5 EQU YDSTG+7 REMOTE DISPLAY SCREEN SIZE ADDRESS
001F16 0000 343 DTST6 EQU YDSTG+16 REMOTE DISPLAY SCREEN SIZE ADDRESS
001F17 0000 344 * DATA STRINGS REPLACE TABLE FOR 12 LINE SCREEN
001F18 04 345 SHORT DC AL1(4) # OF ENTRIES THIS SECTION
001F19 0C 346 DC AL1(12) SCREEN SIZE
001F20 1704 347 DC A(DTST1) ADDRESS TO REPLACE
001F21 1763 348 DC A(DTST3)
001F22 1765 349 DC A(DTST4)
001F23 1FC2 350 DC A(DTST6)
001F24 02 351 *
001F25 0B 352 DC AL1(2) # OF ENTRIES THIS SECTION
001F26 170A 353 DC AL1(11) SCREEN SIZE
001F27 1FB9 354 DC A(DTST2)
001F28 00 355 *
001F29 00 356 *
001F30 0000 357 *
001F31 0000 358 *****
001F32 0000 359 * SWITCHES AND BUFFERS
001F33 0000 360 *
001F34 0000 361 *
001F35 0000 362 *
001F36 0000 363 *****
001F37 0000 364 QUEST DC X'00' CHANGE KEYBOARD SETUP
001F38 0000 365 REDEF DC X'00' REDEFINE KEYBOARD PASS
001F39 0000 366 NONAC DC X'00' NON ALTERNATE CONSOLE PASS
001F40 0000 368 LASTA DC A(*-*) ADDRESS OF LAST DEVICE ADDRESS + ONE

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001F4A 0000 369 CUREA DC A(*-*) ADDRESS OF CURRENT DEVICE ADDRESS
001F4B 0000000000000000 371 DSPAD DC 256X'00' DISPLAY 4978 DEVICE ADDRESSES
00200C 0000 373 RETIN DC A(*-*) ALTERNATE CONSOLE ERROR INDICATOR
00200E 0000 375 ERRET DC A(*-*) ADDRESS SAVE AREA DCP ERROR RETURN
00200F 0000 376 RETRN DC A(*-*) ADDRESS SAVE AREA DCP RETURN
002002 0000 378 KCSV DC A(*-*) ADDRESS SAVE AREA KEY TABLE
002004 0000 380 ACSAV DC A(*-*) SAVE CONSOLE INTERRUPT ADDRESS
002006 0000 381 DSVTR DC A(*-*) SAVE DEVICE VECTOR ADDRESS
002008 0000 382 DSSAV DC A(*-*) SAVE ORIGINAL VECTOR POINTER
00200A 0000 384 R6SAV DC A(*-*) SAVE R6 RPTURN ADDRESS
00200C 2104 386 SRSV DC A(SRHEA) TEA
00200E 2104 387 SRS DC A(SRHEA) HEA
00200F 20F2 388 DC A(SRLEA) LEA
002010 0000 389 SRLEA DC A(0) TEA INFO
002012 0000 390 SRR7 DC A(0) R7 SAVE AREA
002014 0000 391 SRR0 DC A(0) R0 SAVE AREA
002016 0000 392 SRR1 DC A(0) R1 SAVE AREA
002018 0000 393 SRR2 DC A(0) R2 SAVE AREA
00201A 0000 394 SRR3 DC A(0) R3 SAVE AREA
00201C 0000 395 SRR4 DC A(0) R4 SAVE AREA
002100 0000 396 SRR5 DC A(0) R5 SAVE AREA
002102 0000 397 SRR6 DC A(0) R6 SAVE AREA
002104 398 SRHEA EQU * END OF REGISTER STACK ADDRESS
400 *****
401 *
402 * DATA CONSTANTS
403 *
404 *****
002104 80 405 FULLSC DC X'80' FULL SCREEN INDICATOR
002105 40 406 HAVSC DC X'40' HALF SCREEN INDICATOR
002106 00 409 KEYS DC X'00' ATTENTION KEY
002107 00 410 HEX00 DC X'00' ENTER KEY - CONSTANT OF 0
002108 00 411 DC X'00' PROGRAM FUNCTION (PF) KEY
002109 12 412 DC X'12' MOVE CURSOR LEFT KEY
00210A 13 413 DC X'13' MOVE CURSOR RIGHT KEY
00210B 40 414 DC C' ' BLANK
00210C F0F1F2F3F4F5F6F7F 415 DC C'0123456789' NUMBERS
002116 C1C2C3C4C5C6C7C8C 416 DC C'ABCDEFGHIJKLM' ALPHABET
002123 D5D6D7D8D9E2E3E4E 417 DC C'NOPQRSTUVWXYZ'
002130 FF 418 HEXFF DC X'FF' END OF TABLE - CONSTANT OF 255
002131 01 420 ICDS DC X'01' ATTENTION KEY
002132 00 421 DC X'00' ENTER KEY
002133 07 422 DC X'07' PROGRAM FUNCTION (PF) KEY
002134 00 423 DC X'00' MOVE CURSOR LEFT KEY
002135 00 424 DC X'00' MOVE CURSOR RIGHT KEY
002136 00 425 DC X'00' BLANK
002137 0000000000000000 426 DC X'0000000000000000' NUMBERS
002141 0000000000000000 427 DC X'0000000000000000' ALPHABET
00214E 0000000000000000 428 DC X'0000000000000000'
00215B FF 429 DC X'FF' END OF TABLE
00215C 20 431 IKYS DC X'20' ATTENTION KEY
00215D 20 432 DC X'20' ENTER KEY
00215E 10 433 DC X'20' PROGRAM FUNCTION (PF) KEY
00215F 10 434 DC X'10' MOVE CURSOR LEFT KEY
002160 10 435 DC X'10' MOVE CURSOR RIGHT KEY
002161 00 436 DC X'00' BLANK
002162 0000000000000000 437 DC X'0000000000000000' NUMBERS
00216C 0000000000000000 438 DC X'0000000000000000' ALPHABET
002179 0000000000000000 439 DC X'0000000000000000'
002186 FF 440 DC X'FF' END OF TABLE
002187 07 442 RMDSA DC AL1(7) NUMBER OF ENTRIES
002188 01 443 DC AL1(1) OFFSET INTO CONTROL STORE AREA
002189 E9 444 DC C'Z' CHARACTER - EBCDIC TABLE
00218A 03 445 DC C'X' TRANSFER CODE
00218B E7 446 DC C'X' CHARACTER - EBCDIC TABLE
00218C 03 447 DC C'X' TRANSFER CODE
00218D 03 448 DC C'X' CHARACTER - EBCDIC TABLE
00218E 03 449 DC C'X' TRANSFER CODE
00218F E5 450 DC C'V' CHARACTER - EBCDIC TABLE
002190 03 451 DC X'03' TRANSFER CODE
002191 C2 452 DC C'B' CHARACTER - EBCDIC TABLE
002192 03 453 DC X'03' TRANSFER CODE
002193 D5 454 DC C'N' CHARACTER - EBCDIC TABLE
002194 03 455 DC X'03' TRANSFER CODE
002195 D4 456 DC C'M' CHARACTER - EBCDIC TABLE
002196 03 457 DC X'03' TRANSFER CODE
002197 0B 458 *
002198 0F 460 DC AL1(11) NUMBER OF ENTRIES
002199 40 461 DC AL1(15) OFFSET INTO CONTROL STORE AREA
00219A 0F 462 DC X'0F' CHARACTER - EBCDIC TABLE
00219B 00 463 DC X'00' TRANSFER CODE
00219C 00 464 DC X'00' CHARACTER - EBCDIC TABLE
00219D C1 465 DC C'A' CHARACTER - EBCDIC TABLE
00219E 03 466 DC X'03' TRANSFER CODE
00219F E2 467 DC C'S' CHARACTER - EBCDIC TABLE
0021A0 03 468 DC X'03' TRANSFER CODE
0021A1 C4 469 DC C'D' CHARACTER - EBCDIC TABLE
0021A2 03 470 DC X'03' TRANSFER CODE
0021A3 C6 471 DC C'F' CHARACTER - EBCDIC TABLE
0021A4 03 472 DC X'03' TRANSFER CODE
0021A5 C7 473 DC C'G' CHARACTER - EBCDIC TABLE
0021A6 03 474 DC X'03' TRANSFER CODE
0021A7 C8 475 DC C'H' CHARACTER - EBCDIC TABLE
0021A8 03 476 DC X'03' TRANSFER CODE
0021A9 D1 477 DC C'J' CHARACTER - EBCDIC TABLE
0021AA 03 478 DC X'03' TRANSFER CODE
0021AB D2 479 DC C'K' CHARACTER - EBCDIC TABLE
0021AC 03 480 DC X'03' TRANSFER CODE
0021AD D3 481 DC C'L' CHARACTER - EBCDIC TABLE
0021AE 03 482 DC X'03' TRANSFER CODE
0021AF 0A 484 *
0021B0 21 485 DC AL1(10) NUMBER OF ENTRIES
0021B1 D8 486 DC AL1(33) OFFSET INTO CONTROL STORE AREA
0021B2 03 487 DC X'03' CHARACTER - EBCDIC TABLE
0021B3 E6 488 DC C'W' TRANSFER CODE
0021B4 03 489 DC X'03' CHARACTER - EBCDIC TABLE
0021B5 C5 490 DC C'E' TRANSFER CODE
0021B6 03 491 DC X'03' CHARACTER - EBCDIC TABLE
0021B7 D9 492 DC C'B' TRANSFER CODE
0021B8 03 493 DC X'03' CHARACTER - EBCDIC TABLE
0021B9 E3 494 DC C'F' TRANSFER CODE
0021BA 03 495 DC X'03' CHARACTER - EBCDIC TABLE

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0021BB E8 496 DC C'Y' CHARACTER - EBCDIC TABLE
0021BC 03 497 DC X'03' TRANSFER CODE
0021BD E4 498 DC C'U' CHARACTER - EBCDIC TABLE
0021BE 03 499 DC X'03' TRANSFER CODE
0021BF C9 500 DC X'03' CHARACTER - EBCDIC TABLE
0021C1 D6 502 DC X'0' TRANSFER CODE
0021C2 03 503 DC X'03' CHARACTER - EBCDIC TABLE
0021C3 D7 504 DC C'P' CHARACTER - EBCDIC TABLE
0021C4 03 505 DC X'03' TRANSFER CODE
0021C5 0A 506 * DC AL1(10) NUMBER OF ENTRIES
0021C6 40 507 DC AL1(64) OFFSET INTO CONTROL STORE AREA
0021C7 F0 509 DC C'0' CHARACTER - EBCDIC TABLE
0021C8 3C 510 DC X'3C' TRANSFER CODE
0021C9 F1 511 DC C'1' CHARACTER - EBCDIC TABLE
0021CA 3C 512 DC X'3C' TRANSFER CODE
0021CB 3C 513 DC C'3' CHARACTER - EBCDIC TABLE
0021CC 3C 514 DC X'3C' TRANSFER CODE
0021CD F3 515 DC C'3' CHARACTER - EBCDIC TABLE
0021CE 3C 516 DC X'3C' TRANSFER CODE
0021CF F4 517 DC C'4' CHARACTER - EBCDIC TABLE
0021D0 3C 518 DC X'3C' TRANSFER CODE
0021D1 F5 519 DC C'5' CHARACTER - EBCDIC TABLE
0021D2 3C 520 DC X'3C' TRANSFER CODE
0021D3 F6 521 DC C'6' CHARACTER - EBCDIC TABLE
0021D4 3C 522 DC X'3C' TRANSFER CODE
0021D5 F7 523 DC C'7' CHARACTER - EBCDIC TABLE
0021D6 3C 524 DC X'3C' TRANSFER CODE
0021D7 3C 525 DC C'8' CHARACTER - EBCDIC TABLE
0021D8 3C 526 DC X'3C' TRANSFER CODE
0021D9 F9 527 DC C'9' CHARACTER - EBCDIC TABLE
0021DA 3C 528 DC X'3C' TRANSFER CODE
0021DB FF 529 * DC X'FF' MIDDLE OF TABLE
0021DC 01 530 RMDSB DC AL1(1) NUMBER OF ENTRIES
0021DD 68 531 * DC AL1(104) OFFSET INTO CONTROL STORE AREA
0021DE 00 534 ENTER DC AL1(0) ENTER KEY - LC EBCDIC TABLE
0021DF 80 535 DC AL1(0) TRANSFER CODE
0021E0 80 536 * DC X'80' TRANSFER CODE
0021E1 02 537 * DC AL1(2) NUMBER OF ENTRIES
0021E2 72 538 DC AL1(114) OFFSET INTO CONTROL STORE AREA
0021E3 00 539 DC AL1(0) CURSOR POSITION KEY - LC EBCDIC TABLE
0021E4 00 541 DC AL1(0) CURSOR POSITION KEY - UC EBCDIC TABLE
0021E5 80 542 DC X'80' TRANSFER CODE
0021E6 00 543 CURRT DC AL1(0) CURSOR POSITION KEY - LC EBCDIC TABLE
0021E7 00 544 DC AL1(0) CURSOR POSITION KEY - UC EBCDIC TABLE
0021E8 80 545 * DC X'80' TRANSFER CODE
0021E9 03 546 * DC AL1(3) NUMBER OF ENTRIES
0021EA 00 547 DC AL1(124) OFFSET INTO CONTROL STORE AREA
0021EB 00 548 ATTEN DC AL1(0) ATTENTION KEY - LC EBCDIC TABLE
0021EC 00 549 DC AL1(0) ATTENTION KEY - UC EBCDIC TABLE
0021ED 80 551 DC X'80' TRANSFER CODE
0021EE 00 552 PFK DC AL1(0) PROGRAM FUNCT KEY - LC EBCDIC TABLE
0021EF 00 553 DC AL1(0) PROGRAM FUNCT KEY - UC EBCDIC TABLE
0021F0 80 554 DC X'80' TRANSFER CODE
0021F1 00 555 RESET DC AL1(0) ERROR RESET KEY - LC EBCDIC TABLE
0021F2 00 556 DC AL1(0) ERROR RESET KEY - UC EBCDIC TABLE
0021F3 A0 557 * DC X'AO' TRANSFER CODE
0021F4 00 558 * END OF TABLE
0021F5 B0 559 DSRCB DC AL1(0) CONTROL BYTE FOR KEYBOARD INTERRUPTS
0021F6 27C0 560 DSINT DC A(DSL45) DEVICE INTERRUPT ROUTINE ADDRESS

566 * ALTERNATE CONSOLE OVERLAY CONSTANTS *
567 * ***** *
568 * ALIGN WORD *
569 * ***** *
570 *
571 * TTY *
572 ACOVL DC X'40' DEVICE TYPE
573 DC C'3801' OVERLAY NAME
574 DC A(*-*) NEXT AVAIL STORAGE
575 DC X'0010' READ ID ASSIGNED
576 * DISPLAY STATION *
577 DC X'40' DEVICE TYPE
578 DC C'3802' OVERLAY NAME
579 DC A(*-*) NEXT AVAIL STORAGE
580 DC X'0406' READ ID ASSIGNED
581 * DISPLAY STATION *
582 DSP2 DC X'45' DEVICE TYPE
583 DC C'3802' OVERLAY NAME
584 DC A(*-*) NEXT AVAIL STORAGE
585 DSRID DC X'040E' READ ID ASSIGNED
586 * REMOTE DISPLAY STATION *
587 DSP3 DC X'E4' DEVICE TYPE
588 DC C'3804' OVERLAY NAME
589 DC A(*-*) NEXT AVAIL STORAGE
590 DC X'0416' READ ID ASSIGNED
591 * PRINTER *
592 DC X'64' DEVICE TYPE
593 DC C'3803' OVERLAY NAME
594 DC A(*-*) NEXT AVAIL STORAGE
595 DC X'0206' READ ID ASSIGNED
596 * PRINTER *
597 DC X'68' DEVICE TYPE
598 DC C'3803' OVERLAY NAME
599 DC A(*-*) NEXT AVAIL STORAGE
600 DC X'0306' READ ID ASSIGNED
601 DC X'00' END OF PREVIOUS TABLE
602 * DISPLAY STATION CONTROL STORE OVERLAY *
603 CSOVL DC C'380D' OVERLAY NAME
604 DC A(*-*) NEXT AVAIL STORAGE
605 DC X'00' ALIGN
606 * DISPLAY STATION FUNCTION TABLE OVERLAY *
607 FTOVL DC C'380E' OVERLAY NAME
608 DC A(*-*) NEXT AVAIL STORAGE
609 DC X'00' ALIGN
610 * DISPLAY STATION CHARACTER IMAGE OVERLAY *
611 IMOVL DC C'380F' OVERLAY NAME
612 DC A(*-*) NEXT AVAIL STORAGE

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00224C 00 613 DC X'00' ALIGN
00224D D6C5F4C4F0 614 * DC REMOTE DISPLAY STATION CONTROL STORE OVERLAY
002252 0000 615 RMOVL DC C'0E4D0' OVERLAY NAME
002254 00 616 DC A(*-*) NEXT AVAIL STORAGE
002255 C3F3F8C6F1 617 DC X'00' ALIGN
00225A 0000 618 * CONFIGURATION TABLE OVERLAY
619 CTOVL DC C'38BF1' OVERLAY NAME
620 DC A(*-*) NEXT AVAIL STORAGE
621 *
622 * WRITI SVC CONTROL BLOCK *
623 *
624 * FUNCTION TABLE OVERLAY *
625 WFTOVL DC A(FTOVL+ONE) OVERLAY NAME ADDRESS
626 DC A(FTBUF) STORAGE ADDRESS
627 DC A(512) WORD COUNT
628 * REMOTE DISPLAY STATION CONTROL STORE OVERLAY *
629 WRMOV DC A(RMOVL+ONE) OVERLAY NAME ADDRESS
630 DC A(RMBUF) STORAGE ADDRESS
631 DC A(4032) WORD COUNT
632 *****
633 *
634 * NAME ALTCN *
635 *
636 *
637 * PURPOSE TO PROVIDE A ROUTINE TO LOAD THE CORRECT CONSOLE *
638 * OVERLAY AND ASSIGN THE ALTERNATE CONSOLE. *
639 *
640 * METHOD 1. READ THE CORRECT OVERLAY INTO STORAGE AT THE *
641 * END OF DCP/ECP TO SUPPORT ONE OF THESE ALTERNATE *
642 * CONSOLES. *
643 * - C3801 *
644 * DISPLAY - C3802 *
645 * PRINTER - C3803 *
646 * REMOTE DISPLAY - C3804 *
647 * *****
648 *
649 ALTCN EQU *
650 MVW OPADR,R0 GET CONSOLE DEVICE ADDRESS/TYPE
651 BZ NOCON BR/NO ALTERNATE CONSOLE ASSIGNED
652 MVA ACOVL,R2 ADDRESS OF ALT CON OVLY INFO
653 * ALT00 EQU *
654 CB (R2),R0 ALT CON DEVICE TYPE
655 JB ALTO1 BR/YES - CONTINUE TO CHK DEV
656 ABI TEN,R2 NEXT ALT CON ENTRY
657 MVB (R2),R1 LAST ENTRY
658 JNZ ALTO0 BR/NO - TRY NEXT
659 B NOCON BR/NO ALT CON SUPPORT
660 * ALT01 EQU *
661 SRL EIGHT,R0 POSITION THE DEVICE ADR
662 MVB R0,RIDC1 PLACE ADR IN READ ID IDCB
663 MVA RIDCB,IDCB SAVE THE IDCB ADR
664 IO RIDCB READ ID
665 BNCC SEVEN,NOCON BR/NO ALT CON SUPPORT
666 CW (R2,EIGHT),RIDC2 CORRECT READ ID RESPONSE
667 BNE NOCON FR/NO - NO ALT CON SUPPORT
668 MVA (R2,ONE),R3 ADDRESS OF CONSOLE OVERLAY NAME
669 JAL FDS1,R6 READ IT
670 MVBI ACIDN,R1 GET NUMBER IDCB'S TO MOVE
671 MVWI WIDCB,R2 ADDR IN-ADDR 1ST IDCB
672 * ALT02 EQU *
673 MVB R0,(R2,ONE) MOVE IN ALT DEV ADDR IN IDCB
674 ABI FOUR,R2 UPDATE TO NEXT IDCB
675 JCT ALTO2,R1 IF NOT DONE LOOP
676 SLL ONE,R0 EACH ADDR 2 BYTES
677 ABI ADEVT,R0 GET ADDR ALT INT VECTOR
678 MVW R0,INTVPT SAVE VECTOR ADDRESS
679 MVWI ACINT,(R0) SET INT ADDR FOR ALT
680 MVW ACINT,ACSAV SAVE INTERRUPT ADDRESS
681 MVWI ACRES,IDCB SAVE THE IDCB ADR
682 IO ACRES RESET CONSOLE DEVICE
683 MVWI ACPRE,IDCB SAVE THE IDCB ADR
684 IO ACPRE PREPARE CONSOLE DEVICE
685 CB OPTYP,DSP2 DISPLAY STATION CONSOLE
686 BE DSLOC BR/YES - GO SET IT UP
687 CB OPTYP,DSP3 REMOTE DISPLAY STATION CONSOLE
688 BE DSREM BR/YES - GO SET IT UP
689 B YESCN BR/SET CONSOLE GOOD SO FAR
690 *
691 * RETURN HERE TO COMPLETE CONSOLE ASSIGNMENT *
692 *
693 * ALT10 EQU *
694 MVA ALT11,ACINT NEW INTERRUPT ADDRESS
695 MVWI COMMN,IDCB SAVE IDCB ADDRESS
696 IO COMMN PERFORM ONE OF THE FOLLOWING
697 * TTY - CARRIGE RETURN *
698 * DISPLAY - CLEAR SCREEN *
699 * PRINTER - SKIP LINE *
700 * REMOTE DISPLAY - READ STATION SIE *
701 BNCC SEVEN,ALT15 BR/BAD CC - NO ALT CONSOLE
702 BAL WAITL,R7 WAIT FOR INTERRUPT
703 J ALT15 BR/LOST INTERRUPT - NO ALT CONSOLE
704 * ALT11 EQU *
705 BNCC THREE,ALT15 BR/BAD CC - NO ALT CONSOLE
706 MVA ALT15,ACINT NEW INT ADDRESS
707 MVBI THREE,R7 CHANGE TO LEVEL
708 SVC CHNGE THREE
709 *
710 * BAL WAITL,R7 *
711 * WAIT .8 SECONDS *
712 *
713 MVW ACSAV,ACINT RESTORE INTERRUPT ADDRESS
714 INDIC,R7 ADR OF DCP INDICATORS
715 TBTR (R7,ALTDV) TWD ALT DEV ASSIGNED
716 TBTR (R7,STOP) RESET STOP INDICATOR
717 * RETURN TO DCP/CONSOLE *
718 *
719 * RETURN HERE TO INDICATE NO ALTERNATE CONSOLE *
720 *
721 * ALT15 EQU *
722 MVW INDIC,R7 ADR OF DCP INDICATORS
723 TBTR (R7,LODED) SET THE LOADED INDICATOR
724 TBTR (R7,ALTDV) RESET ALTER DEVICE
725 TBTR (R7,STOP) SET STOP INDICATOR
726 MVW OPADR,R0 WAS AN ALTER IN TABLE
727 JZ ALT16 J-NO
728 MVW R0,R2 SAVE THE REGISTER

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002342 3242 728 SRL EIGHT,R2 SHIFT ADP TO BITS 8-15
002344 C228 1F5R 729 MVB R2,UIDC1 MOVE ADP TO UN-PREP
002348 4020 17BE 1F5A 730 MVA UIDCB,IDCB IDCB ADP
002349 680C 1F5A 731 IO UIDCB UN-PREP THE ALT
002352 4020 17BE 1774 732 MVTI ACRES,IDCB IDCB ADDRESS
002358 680C 1774 733 MVI ACRES RESET THE ALTERNATE DEVICE
002359 4020 17BE 734 MVB ONE,R2 POSITION FOR WORD ADDRESSING
00235C 3209 735 ARI ADEVT,R2 POSITION IN INT VECTORS
00235E 0230 736 MVW ACSTR,(R2) VECTOR FOR STRAY INTERRUPT
002360 88A0 178C 737 ALT16 EQU *
002364 6812 20DE 738 B ERRET* RETURN TO DCP/NO CONSOLE

741 * NAME RDS1/RDS2/CKSM/IO1
742 *
743 * PURPOSE TO PROVIDE A SUBROUTINE TO PERFORM EACH OF THE
744 * COMMON APPLICATIONS USED BY THE PROGRAM.
745 *
746 * METHOD 1. PERFORM COMMON 'SVC READI' FUNCTIONS.
747 * 2. PERFORM COMMON CHECKSUM FUNCTIONS.
748 * 3. PERFORM COMMON I/O FUNCTIONS.

002368 6E0D 20EA 752 * READ OVERLAY
002368 EQU *
002368 6E03 753 RDS1 MVB R6,R6SAV SAVE RETURN ADDRESS
00236C 6004 754 MVI THREER,R7 CHANGE TO LEVEL
00236E 755 SVC CHNGE THREE

002370 73E4 758 MVB R3,R7 OVERLAY NAME ADDRESS
002372 601F 759 SVC READI READ IT INTO STORAGE
002374 75A7 760 IR R5,R5 READ OK
002376 6801 2594 761 BNZ NOCON BR/NO - NO CONSOLE SUPPORT
00237A 6812 20EA 762 B R6SAV* RETURN OK

00237E 6E0D 20EA 764 * READ OVERLAY
00237E EQU *
002382 601F 765 MVB R6,R6SAV SAVE RETURN ADDRESS
002384 75A7 766 SVC READI READ IT INTO STORAGE
002386 6801 2804 767 IR R5,R5 READ OK
00238A 6812 20EA 768 BNZ RETUR BR/NO - ATTACHMENT NOT INITIALIZED
00238E EQU *
00238E 6E0D 20EA 769 * COMMON I/O
00238E EQU *
002392 4020 176A 23AC 770 MVB R6,R6SAV SAVE RETURN ADDRESS
002398 6F0D 17BE 771 MVA IO100,ACINT SET UP INTERRUPT ADDRESS
00239C 68EC 0000 772 IO UIDCB SAVE IDCB ADDRESS
0023A0 6F05 2594 773 IO (R7) WRITE ATTACHMENT CODE
0023A4 6F03 2810 774 BNCC SEVEN,NOCON BR/IO CC NG - NO CONSOLE SUPPORT
0023A8 6802 2594 775 BAL WAITI,R7 BR/IO CC OK - WAIT FOR INTERRUPT
0023AC 6E05 2594 776 B NOCON BR/LOST INTRPT - NO CONSOLE SUPPORT
0023AF EQU *
0023AF 6E05 2594 777 BNCC THREE,NOCON BR/INT CC BAD - NO CONSOLE SUPPORT

0023B0 0F03 781 MVI THREER,R7 CHANGE TO LEVEL
0023B2 6004 782 SVC CHNGE THREE
0023B4 6812 20EA 783 B R6SAV* RETURN OK

0023B8 6E0D 20EA 785 * CREATE THE CHECKSUM
0023B8 EQU *
0023BC 4124 3000 786 MVB R6,R6SAV SAVE RETURN ADDRESS
0023C0 C825 3FFE 787 MVTI CSBUF,R1 DISPLAY STATION CONTROL STORE BUFFER
0023C4 700A 788 MVBZ CKSUM,R0 ZERO CHECKSUM INITIALLY
0023C6 EQU *
0023C6 C853 789 SW R0,R0 ZERO REGISTER INITIALLY
0023C8 7906 3FFE 790 CKSM0 EQU *
0023CC 18FC 791 MVB (R1)+,R0 EXCLUSIVE OR EACH WORD
0023CE 680D 3FFE 792 CHT CKSUM,R1 END OF CONTROL STORE REACHED
0023D2 6812 20EA 793 JNE CKSM0 BR/NO - CONTINUE
0023D4 EQU *
0023D4 6812 20EA 794 MVB R0,CKSUM STORE CHECKSUM IN CONTROL STORE
0023D6 EQU *
0023D6 6812 20EA 795 B R6SAV* RETURN OK

800 * NAME DSREM
801 *
802 * PURPOSE TO PROVIDE A ROUTINE TO INITIALLY WRITE THE
803 * ATTACHMENT INITIALIZATION CODE TO THE REMOTE
804 * DISPLAY ATTACHMENT CARD WHICH HAS BEEN ASSIGNED
805 * AS THE ALTERNATE CONSOLE.
806 *
807 * METHOD 1. READ THE ATTACHMENT CODE OVERLAY.
808 * 2. WRITE IT TO THE ATTACHMENT CARD.

0023D6 C120 0240 811 DSREM EQU *
0023DA C128 1F4B 812 MVB CPADR,R1 CONSOLE DEVICE ADDRESS
0023DE C128 1F4F 813 MVB R1,XIDC1 PLACE IN IDCP
0023E2 C120 024E 814 MVB R1,YIDC1 PLACE IN IDCB
0023E6 C128 1FA5 815 MVE OPSUB,R1 CONSOLE SUB-ADDRESS
0023E8 C128 1FAD 816 MVB R1,YWSAD PLACE IN DCB
0023EE C128 16ED 817 MVB R1,WFSAD PLACE IN DCB - IN OVERLAY
0023F0 C128 16ED 818 MVB R1,WCSAD PLACE IN DCB - IN OVERLAY
0023F2 C128 16F1 819 MVB R1,RDSAD PLACE IN DCF - IN OVERLAY

0023F6 4324 224D 821 MVA RMOVL,R3 OVERLAY NAME ADDRESS
0023FA 6E03 2368 822 BAL RDS1,R6 READ IT INTO STORAGE

0023FE 6898 0240 824 MVB OPADR,R0 GET CONSOLE DEVICE ADDRESS
002402 C824 35FE 825 CW RMDEV,R0 CURRENT DEVICE ADDRESS THE SAME
002406 180C 826 DSR00 BR/NO - REASSIGN
002408 802B 024E 3500 827 CP OPSUB,RMSPL CURRENT SUB-ADDRESS THE SAME
00240E 1808 828 MVE DSR00 BR/NO - REASSIGN
002410 802B 2130 1FD6 829 MVE HEXFF,REDEF NO WRIT OF CONTROL STORE NEEDED
002414 802B 2105 3501 830 CH HAVSC,RMSPL+ONE IS CURRENT ONE A HALF SCREEN
00241C 1071 831 JE DSR14 BR/YES - SET UP FOR HALF SCREEN
00241E 5037 832 J DSR09 BR/NO - TRY FULL SCREEN

002420 680D 35FE 834 DSRO0 EQU *
002420 4124 3500 835 MVB R0,RMDEV REASSIGN DEVICE ADDRESS/TYPER
002424 0807 836 MVTI RMSPL,R1 START OF STATION PARM LIST (SPL)
002428 8060 024B 837 MVI SEVRN,R0 NUMBER OF SPL AREAS - ONE
00242A 8068 2104 0001 838 MVB OPSUB,(R1) STORE IN SUB-ADDRESS OF CONSOLE
00242C EQU *
00242C 8068 2104 0001 839 MVB FULSC,(R1,ONE) SET FOR FULL SCREEN SIZE
002434 EQU *
002434 0140 840 DSRO1 EQU *
002436 8060 2130 841 ARI SPLLN,R1 STEP TO NEXT SPL
00243A 88FC 842 MVB HEXFF,(R1) SET ALL OFF BUT FIRST
00243A 88FC 843 JCT DSR01,R0 DO ALL EIGHT

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00243C 4124 21DC 844 *
002440 845 MVA RMDSB,R1 REMOTE DISPLAY DEFINITION TABLE
002440 EQU *
002440 C050 846 DSR02 MVB (R1)+,R0 NUMBER OF ENTRIES/THIS GROUP
002442 100A 847 JZ DSR04 BR/END OF TABLE
002444 C250 848 MVB (R1)+,R2 OFFSET INTO CONTROL STORE AREA
002446 8264 3300 849 EQU *
002446 8264 3380 850 DSR03 MVB (R2,RMELC),(R1)+ SAVE VALUE FOR LOWER CASE FUNCTION
002446 8264 3380 851 MVB (R2,RMEUC),(R1)+ SAVE VALUE FOR UPPER CASE FUNCTION
00244E 8264 3280 852 MVB (R2,RMTID),(R1)+ SAVE VALUE FOR TRANSFER CODE
002452 0201 853 ABI ONE,R2 INCREMENT OFFSET POINTER
002454 B8F8 854 JCT DSR03,R0 BR/DO ALL ENTRIES THIS GROUP
002456 50F4 855 J DSR02 BR/DO NEXT GROUP

002458 4724 0180 857 *
002458 4224 3280 858 DSRO4 EQU *
00245C 0900 859 MVTI THR84,R7 LENGTH OF TABLE
002460 294C 860 MVTI RMTID,R2 STARTING ADDRESS OF TABLE
002462 294C 861 MVI ZERO,R1 FILL VALUE
002462 294C 862 FFN R1,(R2) ZERO OUT TABLE

002464 4124 2187 864 *
002464 0B00 865 MVA RMDSA,R1 REMOTE DISPLAY DEFINITION TABLE
00246A EQU *
00246A C050 866 DSR05 MVB ZERO,R3 INITIAL ZERO SWITCH
00246C 1010 867 MVB (R1)+,R0 NUMBER OF ENTRIES/THIS GROUP
00246E 1A02 868 JZ DSR09 BR/END OF TABLE
002470 0B01 869 JNN DSR06 BR/MIDDLE OF TABLE
002472 50FF 870 MVI ONE,R3 SET SWITCH
002474 872 DSR06 J DSR05 BR/DO NEXT ENTRY
002474 C250 873 EQU *
002474 874 DSR07 MVB (R1)+,R2 OFFSET INTO CONTROL STORE AREA
002476 8188 3300 875 MVB (R1),(R2,RMELC) SET VALUE FOR LOWER CASE
00247A 7367 876 IR R3,R5 SECOND HALF OF TABLE
00247C 1001 877 JZ DSR08 BR/NO - STILL FIRST HALF
00247E 0101 878 ABI ONE,R1 CHANGE VALUE FOR UPPER CASE
002480 8198 3380 879 DSRO8 EQU *
002480 8198 3280 880 MVB (R1)+,(R2,RMEUC) SET VALUE FOR UPPER CASE
002484 0201 881 MVB (R1)+,(R2,RMTID) SET VALUE FOR TRANSFER CODE
002488 0201 882 ABI ONE,R2 INCREMENT OFFSET POINTER
00248A B8F5 883 JCT DSR07,R0 BR/DO ALL ENTRIES THIS GROUP
00248C 50FF 884 J DSR05 BR/DO NEXT GROUP

885 * CALCULATE CHECKSUM FOR CONTROL STORE
886 *
00248E 4124 3040 887 DSRO9 EQU *
00248E C825 3FFE 888 MVTI RMBUF,R1 REMOTE CONTROL STORE START
002492 700A 889 MVBZ CKSUM,R0 ZERO CHECKSUM INITIALLY
002496 700A 890 SW R0,R0 ZERO REGISTER INITIALLY
002498 CA50 891 EQU *
002498 0201 892 DSRO10 MVB (R1)+,R2 CONTROL STORE WORD
00249C 720A 893 ABI ONE,R2 ADD ONE TO IT
00249E 7002 894 SW E2,R0 SUBTRACT FROM ACCUMULATED VALUE
0024A0 7906 895 SCY R0 SUBTRACT CARRY
0024A4 18F9 896 CWI CKSUM,R1 ALL WORDS INCLUDED
0024A6 7802 0001 897 DSR10 JNE DSR10 BR/NOT FINISHED YET
0024AA 680D 3FFE 898 SWI ONE,R0 BR/NOT FINISHED YET
0024AB EQU *
0024AB 680D 3FFE 899 MVB R0,CKSUM SUBTRACT ONE FROM CHECKSUM VALUE
0024AE 6F03 2816 900 * STORE CHECKSUM IN CONTROL STORE
901 *
0024AE 6F03 2816 902 BAL WAITM,R7 DELAY AFTER RESET - 5 SEC
903 *
0024B2 4724 1F4A 904 MVA YIDCB,R7 ADDRESS OF IDCB
0024B6 6E03 238E 905 BAL IO1,R6 GO ISSUE I/O

0024BA 4020 176A 24D6 906 *
0024BA 4020 17BE 1F4E 907 MVA DSR11,ACINT CHANGE INTERRUPT ADDRESS
0024C0 680C 1E4E 908 MVA YIDCB,IDCB ADDRESS OF IDCB
0024C6 6F05 2E94 909 IO YIDCB ISSUE I/O
0024CA 6F05 2E94 910 BNCC SEVEN,NOCON BR/IO CC NG - NO CONSOLE SUPPORT
0024CE 6F05 2E94 911 BAL WAITL,R7 BR/IO CC OK - WAIT FOR INTERRUPT
0024D2 6802 2594 912 B NOCON BR/LOST INTRPT - NO CONSOLE SUPPORT
0024D6 EQU *
0024D6 6A04 24F2 913 DSR11 EQU *
0024DA 6B05 2594 914 BCC TWO,DSR13 BR/INT CC BAD - TRY HALF SCREEN
0024DA 6B05 2594 915 BNCC THREE,NOCON BR/INT CC BAD - NO CONSOLE SUPPORT

0024DE 4020 176A 24EE 916 *
0024DE 0F03 917 MVA DSR12,ACINT CHANGE INTERRUPT ADDRESS
0024E4 6004 918 MVI THREER,R7 CHANGE TO LEVEL
0024E6 6004 919 SVC CHNGE THREE
0024E8 6F03 281C 920 BAL WAITL,R7 WAIT FOR INTERRUPT - .8 SECONDS
0024EC 5013 921 J DSR17 BR/NO INTERRUPT SCREEN SIZE SET

0024EE 6C05 2594 922 DSRO12 EQU *
0024EE 802B 2105 3501 923 DSRO13 BNCC *
0024F2 104D 924 CB HAVSC,RMSPL+ONE SCREEN SIZE ALREADY HALF
0024F8 802B 2105 3501 925 JE NOCON BR/NO CONSOLE SUPPORT
0024FA EQU *
0024FA 802B 2105 3501 926 MVB HAVSC,RMSPL+ONE SET SCREEN SIZE FOR HALF SCREEN
002500 EQU *
002500 4124 1FC4 927 DSRO14 MVA *
002500 4124 1FC4 928 EQU * REMOTE DISPLAY SCREEN SIZE TABLE
002504 C050 929 MVB (R1)+,R0 NUMBER OF ENTRIES/THIS GROUP
002506 10C3 930 JZ DSR09 BR/END OF TABLE - CHECKSUM
002508 C250 931 MVB (R1)+,R2 SCREEN SIZE VALUE
00250A EQU *
00250A C278 0000 932 DSRO16 MVB R2,(R1)* SET VALUE FOR SCREEN SIZE
00250E 0102 933 ABI TWO,R1 INCREMENT TABLE POINTER
002510 B8FC 934 JCT DSR16,R0 BR/DO ALL ENTRIES THIS GROUP
002512 50F8 940 J DSR15 NEXT GROUP

002514 C025 1FD6 941 *
002514 1803 942 DSRO17 EQU *
002518 4724 2262 943 MVBZ REDEF,R0 DO WRIT OF CONTROL STORE
00251E 6020 944 DSR18 JNZ DSR18 BR/NO NOT THIS TIME
002520 EQU *
002520 4020 1FA2 0004 945 MVA WRHOV,R7 CONTROL BLOCK ADDRESS
002522 802B 21F5 1FA4 946 SVC WRITI WRITE CONTROL STORE TO DISKETTE
002524 EQU *
002524 4020 1FA2 0004 947 DSRO18 EQU *
002526 802B 21F5 1FA4 948 MVTI FOUR,YWDCB SET STATION CONTROL BYTE COMMAND
002526 802B 21F5 1FA4 949 MVB DSRCB,YWCM CONTROL BYTE TO SET

00252C 4724 1F4E 950 *
002530 6E03 238E 951 MVA YIDCB,R7 ADDRESS OF IDCB
002534 502C 952 BAL IO1,R6 GO ISSUE I/O

953 * BR/CONSOLE ASSIGNED SO FAR
954 *
955 *
956 *
957 *
958 * NAME DSLOC

LOCTR OBJECT TEXT STMT SOURCE STATEMENT COPYRIGHT IBM CORP 1976
959 * PURPOSE TO PROVIDE A ROUTINE TO INITIALLY WRITE THE
960 * CONTROL STORE AND THE IMAGE STORE TO THE
961 * 4978 ATTACHMENT CARD WHEN DESIGNATED AS THE
962 * ALTERNATE CONSOLE.
963 *
964 * METHOD 1. READ THE THREE OVERLAYS INTO STORAGE.
965 * 2. IF THE KEYBOARD HAS BEEN DEFINED THEN
966 * ASK IF IT IS TO BE REDEFINED, IF IT IS
967 * SET UP TO REDEFINE THE KEYBOARD.
968 * 3. IF THE KEYBOARD HAS NOT BEEN DEFINED
969 * THEN SET UP TO DEFINE THE KEYBOARD.
970 * 4. WRITE THE CONTROL STORE AND THE IMAGE
971 * STORE TO THE ATTACHMENT CARD.
972 *
973 *
974 *****
975 DSLOC EQU *
976 MVB OPADR,R1 CONSOLE DEVICE ADDRESS
977 MVB R1,ICDC1 PLACE
978 MVB R1,CIDC1 ADDRESS
979 MVB R1,FIDC1 IN IDCB'S
980 *
981 MVA IMOVL,R3 OVERLAY NAME ADDRESS
982 BAL RDS1,R6 READ IT INTO STORAGE
983 *
984 MVA IIDCB,R7 ADDRESS OF IDCB
985 BAL IO1,R6 GO ISSUE I/O
986 *
987 MVA CSOVL,R3 OVERLAY NAME ADDRESS
988 BAL RDS1,R6 READ IT INTO STORAGE
989 *
990 DSL00 EQU *
991 MVA FTOVL,R3 OVERLAY NAME ADDRESS
992 BAL RDS1,R6 READ IT INTO STORAGE
993 *
994 CWI HFFPF,FTBUF KEYBOARD BEEN DEFINED
995 DSL10 JE BR/NO - GO SET UP FOR DEFINITION
996 MVBZ QUEST,R0 CHANGE QUESTION ASKED?
997 JNZ DSLO YES - NO CHANGE DESIRED
998 MVB HEXFF,QUEST SET UP TO ASK QUESTION
999 J DSLO10 FR/NO - GO SETUP AND ASK QUESTION
1000 *
1001 DSL01 EQU *
1002 BAL CKSM,R6 GO CREATE A CHECKSUM
1003 *
1004 MVA CIDCB,R7 ADDRESS OF IDCB
1005 BAL IO1,R6 GO ISSUE I/O
1006 *
1007 MVBZ REDEF,R0 SET UP TO REDEFINE
1008 JNZ DSL12 BR/YES - DO REDEFINITION
1009 *****
1010 * SET CORRECT RESPONCE FOR CONSOLE AVAILABILITY
1011 *
1012 *
1013 *****
1014 YESCN EQU *
1015 MVBZ RETIN,R0 INDICATE GOOD RETURN
1016 J CMCON BR/CHECK PEST OF CONFIGURATION
1017 NOCON EQU *
1018 MVBZ INDIC,R7 ADR OF DCP INDICATORS
1019 TBTR (R7,ALTDV) IND ALT DEV NOT ASSIGNED
1020 TBTS (R7,STOP) SET STOP INDICATOR
1021 MVA DSINT,RETIN INDICATE ERROR RETURN
1022 EQU *
1023 MVBZ THREE,R7 CHANGE TO LEVEL
1024 SVC CHNGE THREE
1025 B DSL40 BR/CHECK PEST OF CONFIGURATION
1026 *
1027 *
1028 *
1029 * DEFINE THE KEYBOARD
1030 *
1031 DSL10 EQU *
1032 MVBZ FT,R1 ZERO OUT TOTAL TABLE
1033 MVBZ SEV68,R7 TABLE LENGTH
1034 MVBZ ZERO,R2 ZERO DATA
1035 FPN R2,(R1) PUT IN TABLE
1036 *
1037 MVBZ IT,R1 INTERRUPT TABLE - RETURN CODE
1038 MVBZ TW056,R2 TABLE LENGTH
1039 MVBZ ZERO,R3 FIRST RETURN CODE
1040 DSL11 EQU *
1041 MVB R3,(R1)+ PUT CODE IN TABLE
1042 ABI ONE,R3 INCREMENT BY ONE
1043 JCT DSL11, R2 BR/DO NEXT CODE
1044 *
1045 MVBZ FT,R1 FUNCTION TABLE - ALL KEYS INTERRUPT
1046 MVBZ TW056,R7 TABLE LENGTH
1047 MVBZ THRT2,R2 INTERRUPT CODE - NO DISPLAY
1048 FPN R2,(R1) PUT CODE IN TABLE
1049 *
1050 MVB HEXFF,REDEF INDICATE KEYBOARD REDEFINITION
1051 J DSL01 WRITE CONTROL STORE
1052 *
1053 DSL12 EQU *
1054 MVBZ COMM,R7 ADDRESS OF IDCB
1055 BAL IO1,R6 GO ISSUE I/O
1056 *
1057 MVBZ INDIC,R7 ADR OF DCP INDICATORS
1058 TBTS (R7,ALTDV) IND ALT DEV ASSIGNED
1059 TBTR (R7,STOP) RESET STOP INDICATOR
1060 *
1061 MVBZ FT,R1 ZERO OUT TOTAL TABLE
1062 MVBZ SEV68,R7 TABLE LENGTH
1063 MVBZ ZERO,R2 ZERO DATA
1064 FPN R2,(R1) PUT IN TABLE
1065 *
1066 MVBZ FT,R1 FUNCTION TABLE - ALL KEYS INVALID
1067 MVBZ TW056,R7 TABLE LENGTH
1068 MVBZ ONE12,R2 INVALID CODE - NO DISPLAY
1069 FPN R2,(R1) PUT CODE IN TABLE
1070 *
1071 MVA ACSAV,ACINT CONSOLE INTERRUPT ADDRESS
1072 MVB QUEST,R0 ASK QUPSTION ABOUT KEYBOARD CHANGE
1073 JZ DSL13 BR/NO - INITIAL DEFINE KEYBOARD

LOCTR OBJECT TEXT STMT SOURCE STATEMENT COPYRIGHT IBM CORP 1976
00260E 4724 1E50
002612 6000
002614 4020 176A 2630
00261A 6F03 2810
00261E 8828 20E4 176A
002624 4724 0234
002628 4F87
00262A 4F46
00262C 6802 255E
002630
002630 0F03
002632 6004
002634 C825 17B8
002638 8828 20E4 176A
00263E 4724 1E66
002642 6000
002644 4724 1E88
002648 6000
00264A C925 20E2
00264E 4424 1E98
002652 6F03 26C2
002656 4424 1EA4
00265A 6F03 26C2
00265E 4424 1EC0
002662 6F03 26C2
002666 4424 1ED6
00266A 6F03 26C2
00266E 4424 1EE6
002672 6F03 26C2
002676 4424 1F02
00267A 6F03 26C2
00267E
00267E 6908 20F2
002682 8128 2106 1F06
002688 8028 2130 1F06
00268E 1005
002690 4424 1F0A
002694 6F03 26C2
002698 50F2
00269A
00269A 0F03
00269C 6004
00269E 8028 2130 17B8
0026A4 4724 0234
0026A8 4F87
0026AA 4F46
0026AC 6E03 23B8
0026B0 4724 1F46
0026B4 6E03 238E
0026B8 4724 225C
0026BC 6020
0026BE 6802 258E
0026C2
0026C2 4028 20EC C000
0026C8 8828 20E4 176A
0026CC 0F03
0026D0 6004
0026D2 6F08 20FE
0026D6 6000
0026D8 4020 176A 26E2
0026DE 6812 0248
0026E2
0026E2 6C05 2594
0026E6 3742
0026E8 7E24 FF00
0026EC 764
0026F0 6908 20E2
0026F2 81E8 2106 3D00
0026F8 81E8 2131 3E00
0026FE 81E8 215C 3C00
002704 0101
002706 690D 20E2
00270A 402A 20EC
00270E
00270E 4724 2255
002712 6E03 237E
002716 4124 3000
00271A 4224 1FDC
00271E
00271E 0110
002720 812B 0001 2107
002726 1009
002728 812B 0001 220C
00272E 1877
002730 810B 0240
002734 10F4
1074 MVA FSTMA,R7 DESCRIPTION MESSAGE
1075 SVC OUT WRITE IT
1076 MVA DSL13,ACINT SET UP INTERRUPT ADDRESS
1077 BAL WAITL,R7 BR/WAIT FOR INTERRUPT
1078 * RETURN HERE IF NO INTERRUPT
1079 MVB ACSAV,ACINT CONSOLE INTERRUPT ADDRESS
1080 MVBZ INDIC,R7 ADR OF DCP INDICATORS
1081 TBTR (R7,ALTDV) IND ALT DEV NOT ASSIGNED
1082 TBTS (R7,STOP) SET STOP INDICATOR
1083 B DSL00 BR/NO CHANGE - USE AS IS
1084 *
1085 DSL13 EQU *
1086 MVEI THREE,R7 CHANGE TO LEVEL
1087 SVC CHNGE THREE
1088 MVBZ PGCTL,R0 TURN OFF PAGE CONTROL-DEFINE KEYBOARD
1089 MVA ACSAV,ACINT CONSOLE INTERRUPT ADDRESS
1090 MVA SECHM,R7 DESCRIPTION MESSAGE
1091 SVC OUT WRITE IT
1092 MVA TRDMA,R7 DESCRIPTION MESSAGE
1093 SVC OUT WRITE IT
1094 MVBZ KEYSV,R1 INITIALIZE STARTING OFFSET
1095 MVA FORMA,R4 KEY NAME MESSAGE
1096 BAL DSL16,R7 WRITE IT
1097 MVA FIVMA,R4 KEY NAME MESSAGE
1098 BAL DSL16,R7 WRITE IT
1099 MVA SIXMA,R4 KEY NAME MESSAGE
1100 BAL DSL16,R7 WRITE IT
1101 MVA SEVMA,R4 KEY NAME MESSAGE
1102 BAL DSL16,R7 WRITE IT
1103 MVA SEHMA,R4 KEY NAME MESSAGE
1104 BAL DSL16,R7 WRITE IT
1105 MVA NINMA,R4 KEY NAME MESSAGE
1106 BAL DSL16,R7 WRITE IT
1107 DSL14 EQU *
1108 MVB KEYSV,R1 KEY NAME TABLE CURRENT OFFSET
1109 MVB (R1,KEYS),TENMG KEY NAME IN MESSAGE
1110 CB HEXFF,TENMG LAST KEY DEFINED
1111 JE DSL15 BR/YES - WRITE NEW TABLE AND SAVE
1112 MVA TENMA,R4 KEY NAME MESSAGE
1113 BAL DSL16,R7 WRITE IT
1114 J DSL14 BR/NEXT KEY
1115 *
1116 DSL15 EQU *
1117 MVEI THREE,R7 CHANGE TO LEVEL
1118 SVC CHNGE THREE
1119 MVB HEXFF,PGCTL RESET PAGE CONTROL
1120 MVBZ INDIC,R7 ADR OF DCP INDICATORS
1121 TBTR (R7,ALTDV) IND ALT DEV NOT ASSIGNED
1122 TBTS (R7,STOP) SET STOP INDICATOR
1123 *
1124 BAL CKSM,R6 GO CREATE A CHECKSUM
1125 *
1126 MVA FIDCB,R7 ADDRESS OF IDCB
1127 BAL IO1,R6 GO ISSUE I/O
1128 *
1129 MVA WFTOV,R7 CONTROL BLOCK ADDRESS
1130 SVC WRIT WRITE IT TO DISKETTE - SAVED
1131 B YESCN RETURN TO DCP
1132 *
1133 DSL16 EQU *
1134 STM R6,SRSV SAVE RETURN ADDRESS
1135 MVA ACSAV,ACINT CONSOLE INTERRUPT ADDRESS
1136 MVEI THREE,R7 CHANGE TO LEVEL
1137 SVC CHNGE THREE
1138 MVA SR4,R7 MESSAGE ADDRESS
1139 SVC OUT WRITE MESSAGE
1140 MVA DSL17,ACINT SET UP INTERRUPT ADDRESS
1141 B SCHED* BR/WAIT FOR INTERRUPT FROM KEY
1142 *
1143 DSL17 EQU *
1144 BNCC FOUR,NOCON BR/INT CC BAD - NO CONSOLE SUPPORT
1145 *
1146 SRL EIGHT,R7 POSITION IIB INTERRUPT CODE
1147 RERW HFF00,R7 SAVE INTERRUPT CODE
1148 MVB R7,R3 INTERRUPT CODE IN REG 3
1149 MVB KEYSV,R1 KEY OFFSET FOR TABLES
1150 MVB (R1,KEYS),(R3,CT) PUT CHARACTER CODE IN TABLE
1151 MVB (R1,ICDS),(R3,IT) PUT INTERRUPT CODE IN TABLE
1152 MVB (R1,IKYS),(R3,PT) PUT INTERRUPT KEYS IN TABLE
1153 ABI ONE,R1 INCREMENT CURRENT OFFSET
1154 MVB R1,KEYSV KEY NAME TABLE CURRENT ADDRESS
1155 LMB SRSV RETURN TO CALLER
1156 *
1157 *****
1158 *
1159 * NAME DSL40
1160 *
1161 *
1162 * PURPOSE TO PROVIDE A ROUTINE TO WRITE THE IMAGE STORE
1163 * AND THE CONTROL STORE TO THE 4978 ATTACHMENT
1164 * FOR EACH DEVICE ADDRESS FOUND IN THE
1165 * CONFIGURATION TABLE.
1166 *
1167 * METHOD 1. READ THE CONFIGURATION TABLE INTO STORAGE.
1168 * AND SEARCH FOR ALL 4978 DEVICE ADDRESSES.
1169 *
1170 * 2. READ THE IMAGE STORE OVERLAY INTO STORAGE.
1171 * AND WRITE IT TO ALL OF THE DEVICE ADDRESSES.
1172 *
1173 * 3. READ THE CONTROL STORE OVERLAY INTO STORAGE.
1174 * AND WRITE IT TO ALL OF THE DEVICE ADDRESSES.
1175 *****
1176 DSL40 EQU *
1177 MVA CTOVL,R7 ADDRESS OF OVLY RTN NAME
1178 BAL RDS2,R6 READ IT
1179 *
1180 MVBZ CTBUF,R1 CONFIGURATION TABLE
1181 MVA DSPAD,R2 DISPLAY ADDRESSES TABLE
1182 EQU *
1183 ABI SIXTN,R1 INCREMENT INTO CONFIGURATION TABLE
1184 CB (R1,ONE),HEX00 END OF CONFIGURATION TABLE
1185 JE DSL42 BR/YES
1186 CB (R1,ONE),DSP2 IS THIS ENTRY A 4978 DISPLAY
1187 JNE (R1,4) CHECK NEXT IS THIS THE ALTERNATE CONSOLE
1188 CB (R1) OPADR BR/YES - BYPASS THIS ONE
1189 JE DSL41

LOCTR	OBJECT TEXT	STMT	SOURCE STATEMENT	COPYRIGHT IBM CORP 1976
002736	8184	1189	MVB (R1), (R2) +	SAVE ADDRESS
002738	50F2	1190	J DSL44	CHECK NEXT
00273A		1191	EQU *	
00273A	4124 1FDC	1192	MVA DSPAD, R1	DISPLAY ADDRESSES TABLE START
00273E	7225	1193	CW R2, R1	ANY 4978 DISPLAY ADDRESSES
002740	1061	1194	JE RETUR	BR/NO - RETURN
002742	6A0D 1FD8	1195	MVW R2, LASTA	SAVE ADDRESS OF LAST ADDRESS
002746	4724 2245	1196	*	
00274A	6E03 237E	1197	MVA IMOVL, R7	ADDRESS OF OVLY RTN NAME
		1198	BAL RDS2, R6	READ IT
00274E	9028 1F3E 1F3A	1199	*	
002754		1200	MVD IDCB, BIDCB	SET IDCB FOR IMAGE STORE
002754	4020 1FDA 1FDC	1201	DSL43 EQU *	
00275A		1202	MVA DSPAD, CURRA	DISPLAY ADDRESSES TABLE START
00275A	6908 1FDA	1203	DSL44 EQU *	
00275E	C924 1FD8	1204	MVW CURRA, R1	ADDRESS OF DEVICE ADDRESS
002762	103E	1205	CW LASTA, R1	ALL ADDRESSES DONE
002764	C050	1206	JE DSL46	BR/YES - RETURN
002766	690D 1FDA	1207	MVB (R1) +, R0	DISPLAY DEVICE ADDRESS
00276A	C028 1F3B	1208	MVW R1, CURRA	ADDRESS OF NEXT DEVICE ADDRESS
00276E	C028 1F53	1209	MVB R0, BIDC1	ADDRESS
002772	C028 1F57	1210	MVB R0, BIDC1	IN
002776	C028 1F5B	1211	MVB R0, PIDC1	ALL
00277A	C028 1F5F	1212	MVB R0, UIDC1	IDCB'S
		1213	MVB R0, SIDC1	USED
00277E	4020 17BE 1F52	1214	*	
002784	680C 1F52	1215	MVA RIDCB, IDCB	SAVE THE IDCB ADR
002788	6F05 275A	1216	IO RIDCB	READ ID
00279C	882B 1F54 2214	1217	BNCC SEVEN, DSL44	BR/BAD - TRY NEXT
002792	18E3	1218	CW FIDC2, DSRID	CORRECT READ ID RESPONSE
		1219	JNE DSL44	BR/NO - TRY NEXT
002794	3009	1220	*	
002796	0030	1221	SLL ONE, R0	EACH ADDR 2 BYTES
002798	680D 20E6	1222	ABI ADEVT, R0	GET ADDR ALT INT VECTOR
00279C	8808 20E8	1223	MVW R0, DSVTR	SAVE VECTOR ADDRESS
0027A0	4000 21F6	1224	MVW (R0), DSSAV	SAVE THE ORIGINAL VECTOR ADDRESS
0027A4	4020 17BE 1F56	1225	MVA DSNM, IRO	SET INT ADDR FOR DEVICE
0027AA	680C 1F56	1226	MVA PIDCB, IDCB	SAVE THE IDCB ADR
		1227	IO PIDCB	PREPARE THE DEVICE
0027AE	4020 17BE 1F3A	1228	*	
0027B4	680C 1F3A	1229	MVA BIDCB, IDCB	SAVE IDCB ADDRESS
0027B8	6F05 27C0	1230	IO FIDCB	WRITE IMAGE STORE/CONTROL STORE
0027BC	6F03 2810	1231	BNCC SEVEN, DSL45	BR/IO CC NG - TRY NEXT ADDRESS
		1232	BAL WAITL, R7	BR/WAIT FOR INTERRUPT
0027C0	0F03	1233	*	
0027C2	6004	1234	DSL45 EQU *	
		1235	MVBI THREE, R7	CHANGE TO LEVEL
		1236	SVC CHNGE	THREE
0027C4	4020 17BE 1F5A	1237	*	
0027CA	680C 1F5A	1238	MVA UIDCB, IDCB	IDCB ADR
0027CE	4020 17BE 1F5E	1239	IO UIDCB	UN-PRPP THE DEVICE
0027D4	680C 1F5E	1240	MVA SIDCB, IDCB	IDCB ADDRESS
0027D8	882C 20E8 20E6	1241	IO SIDCB	RESET THE DEVICE
0027DE	50BD	1242	MVW DSSAV, DSVTR*	RESTORE THE VECTOR ADDRESS
		1243	J DSL44	BR/DO NEXT
0027E0	802B 1F3A 1F42	1244	*	
0027E6	100E	1245	DSL46 EQU *	
		1246	CB BIDCB, CIDCB	WRITE CONTROL STORE DONE
		1247	JE RETUR	BR/YES RETURN
0027E8	4724 2235	1248	*	
0027EC	6E03 237E	1249	MVA CSOVL, R7	OVERLAY NAMF ADDRESS
		1250	BAL RDS2, R6	READ IT
0027F0	4724 223D	1251	*	
0027F4	6E03 237E	1252	MVA FTOVL, R7	OVERLAY NAME ADDRESS
		1253	BAL RDS2, R6	READ IT
0027F8	6E03 23B8	1254	*	
		1255	BAL CKSM, R6	GO CPEATE A CHECKSUM
0027FC	9028 1F42 1F3A	1256	*	
002802	50A8	1257	MVD CIDCB, BIDCB	SET IDCB FOR CONTROL STORE
		1258	J DSL43	BR/WPITE CONTROL STORE
		1259	*	
		1260	RETURN TO COMPLETE CONSOLE SETUP	
002804	C825 20DC	1261	*	
002808	6800 22F2	1262	RETUR EQU *	
00280C	6802 2330	1263	MVWZ RETIN, R0	GOOD RETURN FOR CONSOLE TO DCP
		1264	BZ ALT10	BR/YES - RETURN CONSOLE SETUP
		1265	B ALT15	BR/NO - NO CONSOLE
		1266	*****	*****
		1267	*****	*****
		1268	*	*
		1269	NAME WAITL/WAITM/WAITS	*
		1270	*	*
		1271	PURPOSE TO PROVIDE A ROUTINE TO WAIT FOR AN INTERRUPT	*
		1272	FROM THE DEVICE OR THE KEYBOARD DURING KEYBOARD	*
		1273	DEFINITION.	*
		1274	*	*
		1275	METHOD USING SVC IDLE SET UP TO DELAY ONE OF THESE.	*
		1276	WAITL - 15 SECONDS	*
		1277	WAITM - 5 SECONDS	*
		1278	WAITS - .8 SECONDS	*
		1279	*	*
		1280	*****	*****
002810	4424 7422	1281	WAITL EQU *	
002814	5005	1282	MVWI DLONG, R4	DELAY CONSTANT FOR 15 SECONDS
002816		1283	J WAIT1	CONTINUE
002818	4424 26B6	1284	WAITM EQU *	
00281C	5002	1285	MVWI DMED, R4	DELAY CONSTANT FOR 5 SECONDS
00281E		1286	J WAIT1	CONTINUE
002820	4424 0632	1287	WAITS EQU *	
002824		1288	MVWI DSHRT, R4	DELAY CONSTANT FOR .8 SECONDS
002828	6003	1289	WAIT1 EQU *	
002832	BCFE	1290	SVC IDLE5	SVC WAIT FOR 500 USEC
002836	5700	1291	JCT WAIT1, R4	BR/NOT DONE
		1292	BXS (R7)	BR/RETURN TO CALLER
		1293	*	*
		1294	*****	*****
		1295	*	*
		1296	NOTE:	*
		1297	IF THE ADDRESS OF 'FINIS' EXCEEDS X'2A00' THEN THE	*
		1298	SYSTEM TEST STORAGE PARITY CHECK DATA STORAGE AND	*
		1299	PRINT ROUTINE WILL BE DIRECTLY EFFECTED.	*
		1300	*****	*****
002826		1301	*****	*****
000000		1302	FINIS EQU *	LAST ADDRESS USED
		1303	END	

LOCTR	OBJECT TEXT	STMT	SOURCE STATEMENT	COPYRIGHT IBM CORP 1976
002736	8184	1189	MVB (R1), (R2) +	SAVE ADDRESS
002738	50F2	1190	J DSL44	CHECK NEXT
00273A		1191	EQU *	
00273A	4124 1FDC	1192	MVA DSPAD, R1	DISPLAY ADDRESSES TABLE START
00273E	7225	1193	CW R2, R1	ANY 4978 DISPLAY ADDRESSES
002740	1061	1194	JE RETUR	BR/NO - RETURN
002742	6A0D 1FD8	1195	MVW R2, LASTA	SAVE ADDRESS OF LAST ADDRESS
002746	4724 2245	1196	*	
00274A	6E03 237E	1197	MVA IMOVL, R7	ADDRESS OF OVLY RTN NAME
		1198	BAL RDS2, R6	READ IT
00274E	9028 1F3E 1F3A	1199	*	
002754		1200	MVD IDCB, BIDCB	SET IDCB FOR IMAGE STORE
002754	4020 1FDA 1FDC	1201	DSL43 EQU *	
00275A		1202	MVA DSPAD, CURRA	DISPLAY ADDRESSES TABLE START
00275A	6908 1FDA	1203	DSL44 EQU *	
00275E	C924 1FD8	1204	MVW CURRA, R1	ADDRESS OF DEVICE ADDRESS
002762	103E	1205	CW LASTA, R1	ALL ADDRESSES DONE
002764	C050	1206	JE DSL46	BR/YES - RETURN
002766	690D 1FDA	1207	MVB (R1) +, R0	DISPLAY DEVICE ADDRESS
00276A	C028 1F3B	1208	MVW R1, CURRA	ADDRESS OF NEXT DEVICE ADDRESS
00276E	C028 1F53	1209	MVB R0, BIDC1	ADDRESS
002772	C028 1F57	1210	MVB R0, BIDC1	IN
002776	C028 1F5B	1211	MVB R0, PIDC1	ALL
00277A	C028 1F5F	1212	MVB R0, UIDC1	IDCB'S
		1213	MVB R0, SIDC1	USED
00277E	4020 17BE 1F52	1214	*	
002784	680C 1F52	1215	MVA RIDCB, IDCB	SAVE THE IDCB ADR
002788	6F05 275A	1216	IO RIDCB	READ ID
00279C	882B 1F54 2214	1217	BNCC SEVEN, DSL44	BR/BAD - TRY NEXT
002792	18E3	1218	CW FIDC2, DSRID	CORRECT READ ID RESPONSE
		1219	JNE DSL44	BR/NO - TRY NEXT
002794	3009	1220	*	
002796	0030	1221	SLL ONE, R0	EACH ADDR 2 BYTES
002798	680D 20E6	1222	ABI ADEVT, R0	GET ADDR ALT INT VECTOR
00279C	8808 20E8	1223	MVW R0, DSVTR	SAVE VECTOR ADDRESS
0027A0	4000 21F6	1224	MVW (R0), DSSAV	SAVE THE ORIGINAL VECTOR ADDRESS
0027A4	4020 17BE 1F56	1225	MVA DSNM, IRO	SET INT ADDR FOR DEVICE
0027AA	680C 1F56	1226	MVA PIDCB, IDCB	SAVE THE IDCB ADR
		1227	IO PIDCB	PREPARE THE DEVICE
0027AE	4020 17BE 1F3A	1228	*	
0027B4	680C 1F3A	1229	MVA BIDCB, IDCB	SAVE IDCB ADDRESS
0027B8	6F05 27C0	1230	IO FIDCB	WRITE IMAGE STORE/CONTROL STORE
0027BC	6F03 2810	1231	BNCC SEVEN, DSL45	BR/IO CC NG - TRY NEXT ADDRESS
		1232	BAL WAITL, R7	BR/WAIT FOR INTERRUPT
0027C0	0F03	1233	*	
0027C2	6004	1234	DSL45 EQU *	
		1235	MVBI THREE, R7	CHANGE TO LEVEL
		1236	SVC CHNGE	THREE
0027C4	4020 17BE 1F5A	1237	*	
0027CA	680C 1F5A	1238	MVA UIDCB, IDCB	IDCB ADR
0027CE	4020 17BE 1F5E	1239	IO UIDCB	UN-PRPP THE DEVICE
0027D4	680C 1F5E	1240	MVA SIDCB, IDCB	IDCB ADDRESS
0027D8	882C 20E8 20E6	1241	IO SIDCB	RESET THE DEVICE
0027DE	50BD	1242	MVW DSSAV, DSVTR*	RESTORE THE VECTOR ADDRESS
		1243	J DSL44	BR/DO NEXT
0027E0	802B 1F3A 1F42	1244	*	
0027E6	100E	1245	DSL46 EQU *	
		1246	CB BIDCB, CIDCB	WRITE CONTROL STORE DONE
		1247	JE RETUR	BR/YES RETURN
0027E8	4724 2235	1248	*	
0027EC	6E03 237E	1249	MVA CSOVL, R7	OVERLAY NAMF ADDRESS
		1250	BAL RDS2, R6	READ IT
0027F0	4724 223D	1251	*	
0027F4	6E03 237E	1252	MVA FTOVL, R7	OVERLAY NAME ADDRESS
		1253	BAL RDS2, R6	READ IT
0027F8	6E03 23B8	1254	*	
		1255	BAL CKSM, R6	GO CPEATE A CHECKSUM
0027FC	9028 1F42 1F3A	1256	*	
002802	50A8	1257	MVD CIDCB, BIDCB	SET IDCB FOR CONTROL STORE
		1258	J DSL43	BR/WPITE CONTROL STORE
		1259	*	*
		1260	RETURN TO COMPLETE CONSOLE SETUP	
002804	C825 20DC	1261	*	*
002808	6800 22F2	1262	RETUR EQU *	
00280C	6802 2330	1263	MVWZ RETIN, R0	GOOD RETURN FOR CONSOLE TO DCP
		1264	BZ ALT10	BR/YES - RETURN CONSOLE SETUP
		1265	B ALT15	BR/NO - NO CONSOLE
		1266	*****	*****
		1267	*****	*****
		1268	*	*
		1269	NAME WAITL/WAITM/WAITS	*
		1270	*	*
		1271	PURPOSE TO PROVIDE A ROUTINE TO WAIT FOR AN INTERRUPT	*
		1272	FROM THE DEVICE OR THE KEYBOARD DURING KEYBOARD	*
		1273	DEFINITION.	*
		1274	*	*
		1275	METHOD USING SVC IDLE SET UP TO DELAY ONE OF THESE.	*
		1276	WAITL - 15 SECONDS	*
		1277	WAITM - 5 SECONDS	*
		1278	WAITS - .8 SECONDS	*
		1279	*	*
		1280	*****	*****
002810	4424 7422	1281	WAITL EQU *	
002814	5005	1282	MVWI DLONG, R4	DELAY CONSTANT FOR 15 SECONDS
002816		1283	J WAIT1	CONTINUE
002818	4424 26B6	1284	WAITM EQU *	
00281C	5002	1285	MVWI DMED, R4	DELAY CONSTANT FOR 5 SECONDS
00281E		1286	J WAIT1	CONTINUE
002820	4424 0632	1287	WAITS EQU *	
002824		1288	MVWI DSHRT, R4	DELAY CONSTANT FOR .8 SECONDS
002828	6003	1289	WAIT1 EQU *	
002832	BCFE	1290	SVC IDLE5	SVC WAIT FOR 500 USEC
002836	5700	1291	JCT WAIT1, R4	BR/NOT DONE
		1292	BXS (R7)	BR/RETURN TO CALLER
		1293	*	*
		1294	*****	*****
		1295	*	*
		1296	NOTE:	*
		1297	IF THE ADDRESS OF 'FINIS' EXCEEDS X'2A00' THEN THE	*
		1298	SYSTEM TEST STORAGE PARITY CHECK DATA STORAGE AND	*
		1299	PRINT ROUTINE WILL BE DIRECTLY EFFECTED.	*
		1300	*****	*****
002826		1301	*****	*****
000000		1302	FINIS EQU *	LAST ADDRESS USED
		1303	END	

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DECLARED	NAME	ATTRIBUTES AND REFERENCES
157	ACIDN	ABSOLUTE. HEX VALUE (00000005)
128	ACINT	ABSOLUTE. HEX VALUE (0000176A) 670 679 680 694 706 712 773 907 918 1071
572	ACOVL	ADDRESS. HEX LOCATION (000021F8) IN CSECT (C380C) LENGTH (1) 1076 1079 1089 1135 1140
132	ACPRE	ABSOLUTE. HEX VALUE (0000177C) 652
131	ACRES	ABSOLUTE. HEX VALUE (00001774) 683 684
380	ACSAV	ADDRESS. HEX LOCATION (000020E4) IN CSECT (C380C) LENGTH (2) 681 682 732 733
133	ACSTR	ABSOLUTE. HEX VALUE (0000178C) 680 712 1071 1079 1089 1135
134	ACVTR	ABSOLUTE. HEX VALUE (0000178E) 736
113	ADEV7	ABSOLUTE. HEX VALUE (00000030) 678
649	ALTCN	ADDRESS. HEX LOCATION (00002268) IN CSECT (C380C) LENGTH (1) 677 735 1222
155	ALTDV	ABSOLUTE. HEX VALUE (00000007) 167
653	ALT00	ADDRESS. HEX LOCATION (00002274) IN CSECT (C380C) LENGTH (1) 714 723 1019 1058 1081 1121
660	ALT01	ADDRESS. HEX LOCATION (00002282) IN CSECT (C380C) LENGTH (1) 658
672	ALT02	ADDRESS. HEX LOCATION (000022AC) IN CSECT (C380C) LENGTH (1) 655
693	ALT10	ADDRESS. HEX LOCATION (000022F2) IN CSECT (C380C) LENGTH (1) 675
704	ALT11	ADDRESS. HEX LOCATION (0000230C) IN CSECT (C380C) LENGTH (1) 1264
720	ALT15	ADDRESS. HEX LOCATION (00002330) IN CSECT (C380C) LENGTH (1) 694
737	ALT16	ADDRESS. HEX LOCATION (00002364) IN CSECT (C380C) LENGTH (1) 701 703 705 706 1265
239	BIDCB	ADDRESS. HEX LOCATION (00001F3A) IN CSECT (C380C) LENGTH (2) 726
240	BIDC1	ADDRESS. HEX LOCATION (00001F3B) IN CSECT (C380C) LENGTH (1) 240 1200 1229 1230 1246 1257
77	CHNGE	ABSOLUTE. HEX VALUE (00000004) 1209
247	CIDCB	ADDRESS. HEX LOCATION (00001F42) IN CSECT (C380C) LENGTH (2) 708 756 783 920 1024 1087 1118 1137 1236
248	CIDC1	ADDRESS. HEX LOCATION (00001F43) IN CSECT (C380C) LENGTH (1) 248 1004 1246 1257
786	CKSM	ADDRESS. HEX LOCATION (000023B8) IN CSECT (C380C) LENGTH (1) 978
791	CKSM0	ADDRESS. HEX LOCATION (000023C6) IN CSECT (C380C) LENGTH (1) 1002 1124 1255
151	CKSUM	ABSOLUTE. HEX VALUE (00003FFE) 794
1022	CMCON	ADDRESS. HEX LOCATION (000025A2) IN CSECT (C380C) LENGTH (1) 789 793 795 890 897 900
67	CODE0	ABSOLUTE. HEX VALUE (00003816) 1016
68	CODE1	ABSOLUTE. HEX VALUE (00003817) 177
130	COMMN	ABSOLUTE. HEX VALUE (00001770) 183 188 193 198 203 208 213 218 223
146	CSBUF	ABSOLUTE. HEX VALUE (00003000) 228 695 696 1054
294	CSDCB	ADDRESS. HEX LOCATION (00001F72) IN CSECT (C380C) LENGTH (2) 301 788
603	CSOVL	ADDRESS. HEX LOCATION (00002235) IN CSECT (C380C) LENGTH (5) 249
149	CT	ABSOLUTE. HEX VALUE (00003D00) 987 1249
144	CTBUF	ABSOLUTE. HEX VALUE (00003000) 1150
619	CTOVL	ADDRESS. HEX LOCATION (00002255) IN CSECT (C380C) LENGTH (5) 1179
369	CURRA	ADDRESS. HEX LOCATION (00001FDA) IN CSECT (C380C) LENGTH (2) 1176
3	C380C	CSECT. START (00001E00) LENGTH (2598) ESDID (1) 1202 1204 1208
104	DLONG	ABSOLUTE. HEX VALUE (00007422) 1282
103	DMED	ABSOLUTE. HEX VALUE (000026B6) 1285
102	DSHRT	ABSOLUTE. HEX VALUE (00000632) 1288
563	DSINT	ADDRESS. HEX LOCATION (000021F6) IN CSECT (C380C) LENGTH (2) 1288
975	DSLOC	ADDRESS. HEX LOCATION (00002536) IN CSECT (C380C) LENGTH (1) 1021 1125
990	DSL00	ADDRESS. HEX LOCATION (0000255E) IN CSECT (C380C) LENGTH (1) 686
1001	DSL01	ADDRESS. HEX LOCATION (0000257C) IN CSECT (C380C) LENGTH (1) 1083
1031	DSL10	ADDRESS. HEX LOCATION (000025AA) IN CSECT (C380C) LENGTH (1) 997 1051
1040	DSL11	ADDRESS. HEX LOCATION (000025C0) IN CSECT (C380C) LENGTH (1) 995 999
1053	DSL12	ADDRESS. HEX LOCATION (000025DA) IN CSECT (C380C) LENGTH (1) 1043
1085	DSL13	ADDRESS. HEX LOCATION (00002630) IN CSECT (C380C) LENGTH (1) 1008
1107	DSL14	ADDRESS. HEX LOCATION (0000267E) IN CSECT (C380C) LENGTH (1) 1073 1076
1116	DSL15	ADDRESS. HEX LOCATION (0000269A) IN CSECT (C380C) LENGTH (1) 1114
1133	DSL16	ADDRESS. HEX LOCATION (000026C2) IN CSECT (C380C) LENGTH (1) 1111
1143	DSL17	ADDRESS. HEX LOCATION (000026E2) IN CSECT (C380C) LENGTH (1) 1096 1098 1100 1102 1104 1106 1113
1175	DSL40	ADDRESS. HEX LOCATION (0000270E) IN CSECT (C380C) LENGTH (1) 1140
1181	DSL41	ADDRESS. HEX LOCATION (0000271E) IN CSECT (C380C) LENGTH (1) 1025

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DECLARED	NAME	ATTRIBUTES AND REFERENCES
1191	DSL42	ADDRESS. HEX LOCATION (0000273A) IN CSECT (C380C) LENGTH (1) 1186 1188 1190
1201	DSL43	ADDRESS. HEX LOCATION (00002754) IN CSECT (C380C) LENGTH (1) 1184
1203	DSL44	ADDRESS. HEX LOCATION (0000275A) IN CSECT (C380C) LENGTH (1) 1258
1234	DSL45	ADDRESS. HEX LOCATION (000027C0) IN CSECT (C380C) LENGTH (1) 1217 1219 1243
1245	DSL46	ADDRESS. HEX LOCATION (000027E0) IN CSECT (C380C) LENGTH (1) 563 1231
371	DSPAD	ADDRESS. HEX LOCATION (00001FDC) IN CSECT (C380C) LENGTH (1) 1206
582	DSP2	ADDRESS. HEX LOCATION (0000220C) IN CSECT (C380C) LENGTH (1) 1180 1192 1202
587	DSP3	ADDRESS. HEX LOCATION (00002216) IN CSECT (C380C) LENGTH (1) 685 1185
561	DSRCB	ADDRESS. HEX LOCATION (000021F5) IN CSECT (C380C) LENGTH (1) 687
811	DSFEM	ADDRESS. HEX LOCATION (000023D6) IN CSECT (C380C) LENGTH (1) 949
585	DSRID	ADDRESS. HEX LOCATION (00002214) IN CSECT (C380C) LENGTH (2) 688
834	DSR00	ADDRESS. HEX LOCATION (00002420) IN CSECT (C380C) LENGTH (1) 1218
840	DSR01	ADDRESS. HEX LOCATION (00002434) IN CSECT (C380C) LENGTH (1) 826 828
846	DSR02	ADDRESS. HEX LOCATION (00002440) IN CSECT (C380C) LENGTH (1) 843
850	DSR03	ADDRESS. HEX LOCATION (00002446) IN CSECT (C380C) LENGTH (1) 856
858	DSR04	ADDRESS. HEX LOCATION (00002458) IN CSECT (C380C) LENGTH (1) 855
866	DSR05	ADDRESS. HEX LOCATION (0000246A) IN CSECT (C380C) LENGTH (1) 848
872	DSR06	ADDRESS. HEX LOCATION (00002474) IN CSECT (C380C) LENGTH (1) 871 884
874	DSR07	ADDRESS. HEX LOCATION (00002476) IN CSECT (C380C) LENGTH (1) 869
879	DSR08	ADDRESS. HEX LOCATION (00002480) IN CSECT (C380C) LENGTH (1) 883
888	DSR09	ADDRESS. HEX LOCATION (0000248E) IN CSECT (C380C) LENGTH (1) 877
892	DSR10	ADDRESS. HEX LOCATION (00002498) IN CSECT (C380C) LENGTH (1) 832 868 934
913	DSR11	ADDRESS. HEX LOCATION (000024D6) IN CSECT (C380C) LENGTH (1) 898
924	DSR12	ADDRESS. HEX LOCATION (000024EE) IN CSECT (C380C) LENGTH (1) 907
926	DSR13	ADDRESS. HEX LOCATION (000024F2) IN CSECT (C380C) LENGTH (1) 918
930	DSR14	ADDRESS. HEX LOCATION (00002500) IN CSECT (C380C) LENGTH (1) 914
932	DSR15	ADDRESS. HEX LOCATION (00002504) IN CSECT (C380C) LENGTH (1) 831
936	DSR16	ADDRESS. HEX LOCATION (0000250A) IN CSECT (C380C) LENGTH (1) 940
942	DSR17	ADDRESS. HEX LOCATION (00002514) IN CSECT (C380C) LENGTH (1) 939
947	DSR18	ADDRESS. HEX LOCATION (00002520) IN CSECT (C380C) LENGTH (1) 922
382	DSSAV	ADDRESS. HEX LOCATION (000020E8) IN CSECT (C380C) LENGTH (2) 944
381	DSVTR	ADDRESS. HEX LOCATION (000020E6) IN CSECT (C380C) LENGTH (2) 1224 1242
123	DTSTG	ABSOLUTE. HEX VALUE (000016FE) 124 125 126 127
124	DTST1	ABSOLUTE. HEX VALUE (00001704) 347
125	DTST2	ABSOLUTE. HEX VALUE (0000170A) 354
126	DTST3	ABSOLUTE. HEX VALUE (00001763) 348
127	DTST4	ABSOLUTE. HEX VALUE (00001765) 349
342	DTST5	ADDRESS. HEX LOCATION (00001FB9) IN CSECT (C380C) LENGTH (1) 355
343	DTST6	ADDRESS. HEX LOCATION (00001FC2) IN CSECT (C380C) LENGTH (1) 350
216	EGHMA	ADDRESS. HEX LOCATION (00001EEE) IN CSECT (C380C) LENGTH (2) 1103
214	EGHMG	ADDRESS. HEX LOCATION (00001EDA) IN CSECT (C380C) LENGTH (18) 216
93	EIGHT	ABSOLUTE. HEX VALUE (00000008) 661 728 1146
229	ELVMG	ADDRESS. HEX LOCATION (00001F0E) IN CSECT (C380C) LENGTH (40) 231
375	ERRRT	ADDRESS. HEX LOCATION (000020DE) IN CSECT (C380C) LENGTH (2) 164 738
251	FIDCB	ADDRESS. HEX LOCATION (00001F46) IN CSECT (C380C) LENGTH (2) 252 1126
252	FIDC1	ADDRESS. HEX LOCATION (00001F47) IN CSECT (C380C) LENGTH (1) 979
201	FIVMA	ADDRESS. HEX LOCATION (00001EA4) IN CSECT (C380C) LENGTH (2) 1097
199	FIVMG	ADDRESS. HEX LOCATION (00001E9C) IN CSECT (C380C) LENGTH (6) 201
196	FORMA	ADDRESS. HEX LOCATION (00001E98) IN CSECT (C380C) LENGTH (2) 1095
194	FORMG	ADDRESS. HEX LOCATION (00001E8C) IN CSECT (C380C) LENGTH (10) 196
90	FOUR	ABSOLUTE. HEX VALUE (00000004) 674 925 948 1144
181	FSTHA	ADDRESS. HEX LOCATION (00001E50) IN CSECT (C380C) LENGTH (2) 1074
178	FSTMG	ADDRESS. HEX LOCATION (00001E10) IN CSECT (C380C) LENGTH (51) 181
148	FT	ABSOLUTE. HEX VALUE (00003C00) 1032 1045 1061 1066 1152
147	FTBUF	ABSOLUTE. HEX VALUE (00003C00) 148 149 150 310 626 994

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DECLARED	NAME	ATTRIBUTES AND REFERENCES
303	FTDCB	ADDRESS. HEX LOCATION(00001F82) IN CSECT(C380C) LENGTH(2)
607	FTOVL	ADDRESS. HEX LOCATION(0000223D) IN CSECT(C380C) LENGTH(5)
405	FULSC	ADDRESS. HEX LOCATION(00002104) IN CSECT(C380C) LENGTH(1)
406	HAVSC	ADDRESS. HEX LOCATION(00002105) IN CSECT(C380C) LENGTH(1)
418	HEXFF	ADDRESS. HEX LOCATION(00002130) IN CSECT(C380C) LENGTH(1)
410	HEX00	ADDRESS. HEX LOCATION(00002107) IN CSECT(C380C) LENGTH(1)
106	HFFFF	ABSOLUTE. HEX VALUE(0000FFFF)
105	HFF00	ABSOLUTE. HEX VALUE(0000FF00)
420	ICDS	ADDRESS. HEX LOCATION(00002131) IN CSECT(C380C) LENGTH(1)
136	IDCE	ABSOLUTE. HEX VALUE(000017BE)
76	IDLE5	ABSOLUTE. HEX VALUE(00000003)
243	IIDCB	ADDRESS. HEX LOCATION(00001F3E) IN CSECT(C380C) LENGTH(2)
244	IIDC1	ADDRESS. HEX LOCATION(00001F3F) IN CSECT(C380C) LENGTH(1)
431	IKYS	ADDRESS. HEX LOCATION(0000215C) IN CSECT(C380C) LENGTH(1)
145	IMBUF	ABSOLUTE. HEX VALUE(00003000)
285	IMDCB	ADDRESS. HEX LOCATION(00001F62) IN CSECT(C380C) LENGTH(2)
611	IMOVL	ADDRESS. HEX LOCATION(00002245) IN CSECT(C380C) LENGTH(5)
114	INDIC	ABSOLUTE. HEX VALUE(00000234)
771	IO1	ADDRESS. HEX LOCATION(0000238E) IN CSECT(C380C) LENGTH(1)
779	IO100	ADDRESS. HEX LOCATION(000023AC) IN CSECT(C380C) LENGTH(1)
150	IT	ABSOLUTE. HEX VALUE(00003E00)
409	KEYS	ADDRESS. HEX LOCATION(00002106) IN CSECT(C380C) LENGTH(1)
378	KEYSV	ADDRESS. HEX LOCATION(000020E2) IN CSECT(C380C) LENGTH(2)
368	LASTA	ADDRESS. HEX LOCATION(00001FD8) IN CSECT(C380C) LENGTH(2)
153	LODED	ABSOLUTE. HEX VALUE(00000004)
221	NINNA	ADDRESS. HEX LOCATION(00001F02) IN CSECT(C380C) LENGTH(2)
219	NINNG	ADDRESS. HEX LOCATION(00001EF2) IN CSECT(C380C) LENGTH(14)
1017	NOCON	ADDRESS. HEX LOCATION(00002594) IN CSECT(C380C) LENGTH(1)
87	ONE	ABSOLUTE. HEX VALUE(00000001)
98	ONE12	ABSOLUTE. HEX VALUE(00000070)
115	OPADR	ABSOLUTE. HEX VALUE(00000240)
118	OPSUB	ABSOLUTE. HEX VALUE(0000024B)
116	OPTYP	ABSOLUTE. HEX VALUE(00000241)
75	OUT	ABSOLUTE. HEX VALUE(00000000)
135	PGCTL	ABSOLUTE. HEX VALUE(000017B8)
267	PIDCB	ADDRESS. HEX LOCATION(00001F56) IN CSECT(C380C) LENGTH(2)
268	PIDC1	ADDRESS. HEX LOCATION(00001F57) IN CSECT(C380C) LENGTH(1)
364	QUEST	ADDRESS. HEX LOCATION(00001FD5) IN CSECT(C380C) LENGTH(1)
122	RDSAD	ABSOLUTE. HEX VALUE(000016F1)
753	RDS1	ADDRESS. HEX LOCATION(00002368) IN CSECT(C380C) LENGTH(1)
764	RDS2	ADDRESS. HEX LOCATION(0000237E) IN CSECT(C380C) LENGTH(1)
78	READI	ABSOLUTE. HEX VALUE(0000001F)
365	REDEF	ADDRESS. HEX LOCATION(00001FD6) IN CSECT(C380C) LENGTH(1)
373	RETIN	ADDRESS. HEX LOCATION(000020DC) IN CSECT(C380C) LENGTH(2)
376	RETRN	ADDRESS. HEX LOCATION(000020E0) IN CSECT(C380C) LENGTH(2)
1262	RETUR	ADDRESS. HEX LOCATION(00002804) IN CSECT(C380C) LENGTH(1)
263	RIDCB	ADDRESS. HEX LOCATION(00001F52) IN CSECT(C380C) LENGTH(2)
264	RIDC1	ADDRESS. HEX LOCATION(00001F53) IN CSECT(C380C) LENGTH(1)
265	RIDC2	ADDRESS. HEX LOCATION(00001F54) IN CSECT(C380C) LENGTH(2)
137	RMBUF	ABSOLUTE. HEX VALUE(00003040)
142	RMDEV	ABSOLUTE. HEX VALUE(000035FE)
442	PMDSA	ADDRESS. HEX LOCATION(00002187) IN CSECT(C380C) LENGTH(1)
532	BMDSB	ADDRESS. HEX LOCATION(000021DC) IN CSECT(C380C) LENGTH(1)

DECLARED	NAME	ATTRIBUTES AND REFERENCES
139	RMELC	ABSOLUTE. HEX VALUE(00003300)
140	RMEUC	ABSOLUTE. HEX VALUE(00003380)
615	RMOVL	ADDRESS. HEX LOCATION(0000224D) IN CSECT(C380C) LENGTH(5)
141	RMSPL	ABSOLUTE. HEX VALUE(00003500)
138	RMTID	ABSOLUTE. HEX VALUE(00003280)
0	R0	REGISTER. HEX VALUE(00000000)
0	R1	REGISTER. HEX VALUE(00000001)
0	R2	REGISTER. HEX VALUE(00000002)
0	R3	REGISTER. HEX VALUE(00000003)
0	R4	REGISTER. HEX VALUE(00000004)
0	R5	REGISTER. HEX VALUE(00000005)
0	R6	REGISTER. HEX VALUE(00000006)
384	R6SAV	ADDRESS. HEX LOCATION(000020EA) IN CSECT(C380C) LENGTH(2)
0	R7	REGISTER. HEX VALUE(00000007)
117	SCHED	ABSOLUTE. HEX VALUE(00000248)
186	SECM	ADDRESS. HEX LOCATION(00001E66) IN CSECT(C380C) LENGTH(2)
184	SECMG	ADDRESS. HEX LOCATION(00001E54) IN CSECT(C380C) LENGTH(16)
92	SEVEN	ABSOLUTE. HEX VALUE(00000007)
211	SEVMA	ADDRESS. HEX LOCATION(00001ED6) IN CSECT(C380C) LENGTH(2)
209	SEVMG	ADDRESS. HEX LOCATION(00001EC4) IN CSECT(C380C) LENGTH(16)
101	SEV68	ABSOLUTE. HEX VALUE(00000300)
345	SHORT	ADDRESS. HEX LOCATION(00001FC4) IN CSECT(C380C) LENGTH(1)
275	SIDCB	ADDRESS. HEX LOCATION(00001F5E) IN CSECT(C380C) LENGTH(2)
276	SIDC1	ADDRESS. HEX LOCATION(00001F5F) IN CSECT(C380C) LENGTH(1)
206	SIXMA	ADDRESS. HEX LOCATION(00001EC0) IN CSECT(C380C) LENGTH(2)
204	SIXMG	ADDRESS. HEX LOCATION(00001EA8) IN CSECT(C380C) LENGTH(22)
96	SIXTN	ABSOLUTE. HEX VALUE(00000010)
143	SPLLN	ABSOLUTE. HEX VALUE(00000040)
398	SRHEA	ADDRESS. HEX LOCATION(00002104) IN CSECT(C380C) LENGTH(1)
389	SRLEA	ADDRESS. HEX LOCATION(000020F2) IN CSECT(C380C) LENGTH(2)
395	SRR4	ADDRESS. HEX LOCATION(000020FE) IN CSECT(C380C) LENGTH(2)
386	SRSV	ADDRESS. HEX LOCATION(000020EC) IN CSECT(C380C) LENGTH(2)
154	STOP	ABSOLUTE. HEX VALUE(00000006)
94	TEN	ABSOLUTE. HEX VALUE(0000000A)
226	TENMA	ADDRESS. HEX LOCATION(00001FOA) IN CSECT(C380C) LENGTH(2)
224	TENMG	ADDRESS. HEX LOCATION(00001F06) IN CSECT(C380C) LENGTH(2)
89	THREE	ABSOLUTE. HEX VALUE(00000003)
97	THRT2	ABSOLUTE. HEX VALUE(00000020)
100	THR84	ABSOLUTE. HEX VALUE(00000180)
191	TRDMA	ADDRESS. HEX LOCATION(00001E88) IN CSECT(C380C) LENGTH(2)

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DECLARED	NAME	ATTRIBUTES AND REFERENCES
189	TRDMG	ADDRESS. HEX LOCATION (00001E6A) IN CSECT (C380C) LENGTH (28)
88	TWO	ABSOLUTE. HEX VALUE (00000002)
99	TWO56	ABSOLUTE. HEX VALUE (00000100)
271	UIDCB	ADDRESS. HEX LOCATION (00001F5A) IN CSECT (C380C) LENGTH (2)
272	UIDC1	ADDRESS. HEX LOCATION (00001F5B) IN CSECT (C380C) LENGTH (1)
1281	WAITL	ADDRESS. HEX LOCATION (00002810) IN CSECT (C380C) LENGTH (1)
1284	WAITM	ADDRESS. HEX LOCATION (00002816) IN CSECT (C380C) LENGTH (1)
1287	WAITS	ADDRESS. HEX LOCATION (0000281C) IN CSECT (C380C) LENGTH (1)
1289	WAIT1	ADDRESS. HEX LOCATION (00002820) IN CSECT (C380C) LENGTH (1)
121	WCSAD	ABSOLUTE. HEX VALUE (000016ED)
625	WFTOV	ADDRESS. HEX LOCATION (0000225C) IN CSECT (C380C) LENGTH (2)
129	WIDCB	ABSOLUTE. HEX VALUE (0000176C)
119	WRDCB	ABSOLUTE. HEX VALUE (000016CA)
79	WRITI	ABSOLUTE. HEX VALUE (00000020)
629	WRMOV	ADDRESS. HEX LOCATION (00002262) IN CSECT (C380C) LENGTH (2)
120	WRSAD	ABSOLUTE. HEX VALUE (000016CD)
255	XIDCB	ADDRESS. HEX LOCATION (00001F4A) IN CSECT (C380C) LENGTH (2)
256	XIDC1	ADDRESS. HEX LOCATION (00001F4B) IN CSECT (C380C) LENGTH (1)
312	XSDCB	ADDRESS. HEX LOCATION (00001F92) IN CSECT (C380C) LENGTH (2)
338	YDSTG	ADDRESS. HEX LOCATION (00001FB2) IN CSECT (C380C) LENGTH (2)
1014	YESCN	ADDRESS. HEX LOCATION (0000258E) IN CSECT (C380C) LENGTH (1)
259	YIDCB	ADDRESS. HEX LOCATION (00001F4E) IN CSECT (C380C) LENGTH (2)
260	YIDC1	ADDRESS. HEX LOCATION (00001F4F) IN CSECT (C380C) LENGTH (1)
322	YWCM	ADDRESS. HEX LOCATION (00001FA4) IN CSECT (C380C) LENGTH (1)
321	YWDCE	ADDRESS. HEX LOCATION (00001FA2) IN CSECT (C380C) LENGTH (2)
323	YWSAD	ADDRESS. HEX LOCATION (00001FA5) IN CSECT (C380C) LENGTH (1)
86	ZERO	ABSOLUTE. HEX VALUE (00000000)

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