

LOCTR OBJECT TEXT STMT SOURCE STATEMENT COPYRIGHT IBM CORP 1976
001D70 3 Q38F5 START X'1D70'
4 *****
5 *
6 * *** PREREQUISITES ***
7 *
8 * NONE
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10 *****
11 *
12 * *** MODIFICATIONS ***
13 *
14 * NONE
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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 12APR78 DATE 08AUG78 DATE DATE
33 * E.C. 755404D E.C. 755404 E.C. E.C.
34 *
35 *****
36 *
37 * OVERLAY PROGRAM START
38 *
39 *****
40 CYR00 MVW R7,OLYRA SAVE OVERLAY RETURN ADDRESS
41 B CXI02 B TO START
42 *****
43 *
44 * DATA FOR FUNCTIONS OVERLAY
45 *
46 *****
47 CTEM DC X'00' ENTRIES MADE FLAG
48 ALIGN WORD
49 CTCM1 DC X'FFFF' CONSTANT -1
50 CTDBB DC C' '
51 *
52 * SYSTEM TYPE
53 *
54 CALEN DC X'23' ELBERTA SYSTEM TYPE
55 CLING DC X'25' CLINGSTONE SYSTEM TYPE
56 *
57 * ALIGN WORD
58 *****
59 * CONFIG TABLE MESSAGES = 3820 -384F
60 *
61 * CONTROL BLOCK OUTIN
62 * ALIGN WORD
63 DC X'0080'
64 CTD02 DC A(CTD03) OUTPUT
65 DC A(CTD04) INPUT
66 DC A(1) LENGTH OF INPUT
67 DC A(1) CONVERT TO HEX
68 *
69 * OUTPUT MESSAGE OUTIN
70 DC X'383A'
71 CTD03 DC C'ENTRY NUMBER'
72 DC X'00'
73 *
74 * INPUT MESSAGE OUTIN
75 * ALIGN WORD
76 * DC X'00' INPUT
77 *
78 * CONTROL BLOCK OUTPUT
79 * ALIGN WORD
80 DC X'0080'
81 CTD06 DC A(CTD07)
82 DC A(-1)
83 *
84 * OUTPUT
85 DC X'384C'
86 CTD07 DC C'ADD'
87 DC X'00'
88 *
89 * CONTROL BLOCK OUTPUT
90 * ALIGN WORD
91 DC X'0080'
92 CTD10 DC A(CTD11)
93 DC A(-1)
94 *
95 * OUTPUT MESSAGE
96 DC X'384C'
97 CTD11 DC C'DELETE'
98 DC X'00'
99 *
100 * CONTROL BLOCK OUTPUT
101 * ALIGN WORD
102 DC X'0080'
103 CTD15 DC A(CTD16)
104 DC A(-1)
105 *
106 * OUTPUT MESSAGE
107 DC X'384C'
108 CTD16 DC C'TCS'
109 DC X'00'
110 *
111 * CONTROL BLOCK OUTIN
112 * ALIGN WORD
113 DC X'0080'
114 CTD20 DC A(CTD21) OUTPUT
115 DC A(CTE04) INPUT
116 DC A(1) LENGTH OF INPUT
117 DC A(1) CONVERT TO HEX
118 *
119 * OUTPUT
120 DC X'3839' OUTPUT
121 CTD21 DC C'ADDRESS'
122 DC X'00'
123 *
124 * ALIGN WORD
125 *****
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119 * INPUT - SEE CTE04 INPUT
120 *
121 * CONTROL BLOCK OUTPUT
122 * ALIGN WORD
123 DC X'00C0'
124 CTW40 DC A(CTW41)
125 DC A(-1)
126 *
127 * OUTPUT MESSAGE
128 DC X'3823'
129 CTW41 DC C'INVALID ENTRY'
130 DC X'00'
131 *
132 * CONTROL BLOCK OUTIN
133 * ALIGN WORD
134 DC X'0080'
135 CTM11 DC A(CTM12)
136 DC A(CTE04)
137 DC A(16)
138 *
139 * OUTPUT
140 DC X'383B'
141 CTM12 DC C'AATT 0203 0405 0607 0809 0000 0000 IDID'
142 DC X'00'
143 *
144 * INPUT SEE CTE01
145 *
146 * CONTROL BLOCK OUTPUT
147 * ALIGN WORD
148 DC X'0080'
149 CIM07 DC A(CTM09)
150 DC A(CTE04)
151 DC A(16)
152 *
153 * OUTPUT FOR OUTIN - CONFIGURATION TABLE ENTRY
154 DC X'3846'
155 CIM09 DC C' '
156 CIM10 DC C' '
157 *
158 * INPUT MESSAGE SEE CTE04
159 *
160 * CONTROL BLOCK HTOE
161 * ALIGN WORD
162 DC X'002'
163 CIM20 DC A(CEDN1)
164 DC A(CIM32)
165 *
166 * CONTROL BLOCK OUTPUT
167 * ALIGN WORD
168 DC X'0080'
169 CIM30 DC A(CIM31)
170 DC A(-1)
171 *
172 * OUTPUT
173 DC X'384C'
174 CIM31 DC C'ENTRY '
175 CIM32 DC C' '
176 *
177 * ALIGN WORD
178 DC X'0080'
179 CHD01 DC A(CHD02)
180 DC A(-1)
181 *
182 * OUTPUT MESSAGE
183 DC X'384C'
184 CHD02 DC C'MODIFY'
185 DC X'00'
186 *
187 * CONTROL BLOCK HTOE
188 * ALIGN WORD
189 DC X'001'
190 CHD10 DC A(CTD04)
191 DC A(CIM32)
192 *
193 * CONTROL BLOCK OUTIN
194 * ALIGN WORD
195 DC X'0080'
196 CHD70 DC A(CHD71)
197 DC A(CHD73)
198 DC A(1)
199 DC A(1)
200 *
201 * OUTPUT
202 DC X'3827'
203 CHD71 DC C'23=4953, 25=4955'
204 *
205 * DC X'00'
206 *
207 * INPUT
208 * ALIGN WORD
209 DC X'00'
210 CHD73 DC X'00'
211 *
212 * CONTROL BLOCK OUTPUT
213 * ALIGN WORD
214 DC X'0080'
215 CTM6B DC A(CTM6C)
216 DC A(-1)
217 *
218 * OUTPUT MESSAGE
219 DC X'3823'
220 CTM6C DC C'INNER STORAGE'
221 DC X'00'
222 *
223 * CONTROL BLOCK OUTIN
224 * ALIGN WORD
225 DC X'00C0'
226 CTM7A DC A(CTM7B) OUTPUT
227 DC A(CTH7F) INPUT
228 DC A(1)
229 DC A(1)
230 *
231 * OUTPUT MESSAGE
232 DC X'3850'
233 CTM7A DC C'03=16K, 17=32K, 0B=48K, 0F=64K'
234 DC X'00'
235 *
236 * CONTROL BLOCK OUTIN
237 * ALIGN WORD
238 DC X'00C0'
239 CTM7B DC A(CTM7C) OUTPUT
240 DC A(CTH7F) INPUT
241 *
242 * INPUT
243 * ALIGN WORD
244 DC X'00C0'
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LOCTR OBJECT TEXT STMT SOURCE STATEMENT COPYRIGHT IBM CORP 1976
001F06 0001 233 DC A(1)
001F08 0001 234 DC A(1)
235 * OUTPUT MESSAGE
001F0A 3851 236 DC X'3851'
001F0C C1C4C4D9C5E2E240E 237 CTM7C DC C'ADDRESS TRANSLATOR? 00=NO, 01=YES'
001F2D 00 238 DC X'00'

LOCTR OBJECT TEXT STMT SOURCE STATEMENT COPYRIGHT IBM CORP 1976
002006 E925 21DC 350 MW CTW16,R1 ENTRY NO X 16 = ENTRY START BYTE
00200A 6A08 2216 351 MVW CTABA,R2 CONFIGURATION TABLE ADDRESS
00200E 7228 352 AW R2,R1 ADDRESS TABLE ENTRY TO DELETE
R1 = ADDRESS OF ENTRY TO DELETE
353 *
354 * MAKE FIRST 4 BYTES OF ENTRY = FF-FF-XX-FF
002010 8860 1D7A 355 MVW CTCM1,(R1) FF INTO BYTE 0 & 1
002014 8068 21D6 0003 356 MVB CTCFF,(R1,3) FF INTO BYTE 3
00201A 8868 1D7A 000E 357 MVW CTCM1,(R1,14) FF INTO BYTE 14 & 15
002020 6802 1FBE 358 B FUPIN
359 *****
360 * END DELETE ENTRY TO CONFIGURATION TABLE
361 *****
362 * INCLUDED MEMBER MODIFY MEMBER = CMODIFY
363 *****
364 * MODIFY CONFIGURATION TABLE ENTRY
365 *****
002024 4724 1E8A 366 CXIN5 MVA CMD01,R7
002028 6000 367 SVC OUT PRINT MODIFY
00202A 4724 1D82 368 MVW CT002,R7 PRINT ENTER ENTRY NUMBER
00202C 6001 369 SVC OUT ENTER ENTRY NUMBER
002030 C220 1D9A 370 MVB CTD04,R2 R2 = ENTRY #
002034 3241 371 SLL 8,R2
002036 3242 372 SRL 8,R2
002038 F201 373 CBI 1,R2 CORRECT ENTRY TESTS
00203A 1430 374 JLT CMEND
00203C C234 2218 375 CB CTABU*,R2 CK WITH # OF ENTRIES USED
002040 1D2D 376 JGT CMEND
377 *
378 * ENTRY CORRECT
002042 4724 1E98 379 MVA CMD10,R7
002046 601A 380 SVC HTOE ENTRY # FOR PRINT
002048 4724 1E74 381 MVW CTM30,R7
00204C 6000 382 SVC OUT PRINT 'ENTRY XX'
00204E EA25 21DC 383 MW CTW16,R2 DELTA INTO TABLE
002052 6808 2216 384 MVW CTABA,R3 R3 = ADDRESS CONFIG TABLE
002056 7268 385 AW R2,R3 START OF ENTRY
002058 680D 2248 386 MVW R3,CTM21
00205C 4020 224A 2258 387 MVA CTE04,CTM22
002062 4724 2246 388 MVA CTH20,R7
002066 601A 389 SVC HTOE TABLE ENTRY TO EBCDIC
002068 4124 1E3A 390 MVA CIM10,R1 ADD SPACES FOR PRINT
00206C 4724 2258 391 MVA CTE04,R7
002070 4224 0001 392 MVWI 1,R2 COUNT
002074 9780 393 MVD (R7),(R1) TWO WORDS OF TABLE ENTRY (EBCDIC)
002078 8868 0004 394 MVW CTDBB,(R1,4) C'
00207C 7F01 0004 395 ANI 4,R1
002080 7921 0006 396 ANI 6,R1
002084 7A41 0001 397 ANI 1,R2
002088 7A06 0008 398 CBI 8,R2
002090 6D00 2074 399 BLE CXINA END ADD SPACES
002094 4724 1E2E 400 MVA CINO7,R7
401 SVC OUTIN PRINT CONFIGURATION TABLE ENTRY
402 * EXPECT INPUT OF UPDATED ENTRY
403 * R3 = MOVE TO ADDRESS
404 * MVA CTE04,R4 R4 = MOVE FROM ADDRESS
002096 4424 2258 405 * R7 = # BYTES TO MOVE FROM SVC OUTIN
00209A 2C64 406 * MOVE NEW ENTRY INTO CONFIG TABLE
00209C 6802 1FBE 407 CMEND EQU * END
408 B FUPIN
409 *****
410 * END MODIFY *****
411 *****
412 * CHANGE ALTERNATE CONSOLE
413 *****
0020A0 6F03 2710 414 CXIN6 BAL CACON,R7 CALL ENTER ALTERNATE CONSOLE
0020A4 6802 1FBE 415 B FUPIN
416 *****
417 *****
418 * CHANGE SYSTEM TYPE
419 *****
420 *****
421 CXIN8 MVA CHD70,R7
422 SVC OUTIN PRINT ENTER SYSTEM TYPE
0020AE 6908 221C 423 * 0023=4953, 0025=4955
0020B2 802B 1D7E 1EBC 424 MVW CTABP,R1 FT=ADDRESS CONFIG TABLE SYSTEM TYPE
0020B8 1803 425 CB CALBR,CMD73
0020BA 8060 1D7E 426 JNE CXI81
427 * ALBERTA
428 MVB CALBR,(R1) SET SYSTEM TYPE = 4953
0020BC 5008 429 J CXI89
0020C0 802B 1D7F 1EBC 430 CXI81 CB CLING,CMD73
0020C6 1803 431 JNE CXI82
432 * CLINGSTONE
433 MVB CLING,(R1) SET SYSTEM TYPE = 4955
0020C8 8060 1D7F 434 J CXI89
0020CC 5001 435 CXI82 EQU *
436 *
437 *
438 *
439 *
440 *
441 * INVALID SYSTEM TYPE
0020CE 50EC 442 CXI88 J CXIN8 RETRY
443 *
444 CXI89 B FUPIN FINISHED ENTRY
445 *****
446 * SORT CONFIG TABLE
447 *****
448 *****
0020D4 6F03 2812 449 CXIN9 BAL CSORT,R7
0020D8 6802 1FBE 450 B FUPIN
451 *****
452 * CHANGE STORAGE SIZE IN TABLE
453 *****
0020DC 4724 1E0C 454 CXINC EQU *
0020DE 6000 455 SS001 MVA CTH6B,R7
0020E0 6000 456 SVC OUT PRINT 'INNER STORAGE'
0020E2 4724 1E06 457 MVW CTM7,R7
0020E6 6001 458 SVC OUTIN
0020E8 C620 1F66 459 MVB CTM7F,R6 PRINT '03=16K, 07=32K, 0B=48K, 0F=64K'
0020EC F603 460 CBI X'03',R6
0020EE 100A 461 JE SS002
0020F0 F607 462 CBI X'07',R6
0020F2 1008 463 JE SS002
0020F4 F60B 464 CBI X'0B',R6
0020F6 1006 465 JE SS002
0020F8 F60F 466 CBI X'0F',R6
0020FA 1004 467 JE SS002

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468 * INCORRECT ENTRY
469 MVA CTW40,R7
470 SVC OUT PRINT 'INCORRECT ENTRY'
471 J SS001
472 * ENTRY OK
473 SS002 SLL R2,R6
474 MVB CTAB0,R1 R5 = SET INNER STORAGE
475 MVB CTAB0,R1 P1 = SYSTEM TYPE
476 CBI X'231',R1
477 JE SS005 J IF ELBERTA, NO TRANSLATOR
478 MVA CTM7B,R7
479 SVC OUTIN PRINT 'ADDRESS TRANSLATOR'
480 MVB CTM7E,R6
481 JZ SS005
482 * ADDRESS TRANSLATOR
483 MVA CTM7D,R7
484 SVC OUTIN PRINT '0XXX=# 16K UNITS OUTER STORAGE'
485 MVB CTM7E,R6 R6 = OUTER STORAGE
486 MVB CTM7E,R6
487 NWI X'F800',R6,R4
488 JZ SS004
489 * INCORRECT ENTRY
490 MVA CTW40,R7
491 SVC OUT PRINT 'INCORRECT ENTRY'
492 J SS003
493 * ENTRY OK
494 SS004 OW R6,R5
495 MVB X'0800',R5 ADDRESS TRANSLATOR BIT
496 B PUFIN FILL STORAGE INTO CONFIG TABLE
497 *****
498 *****
499 *****
500 * PROCEDURE TCSEN
501 * SET BIT TO INDICATE ENTRY IS DEVICE IN A TCS
502 *****
503 * ENTER ENTRY NUMBER FOR TCS DEVICE
504 * FIRST REAL ENTRY = #1
505 TCSEN EQU *
506 MVA CTABU,R1
507 MVB (R1),R2
508 CWI 1,R2
509 JLT TCS08 J IF NO ENTRIES IN CONFIG TABLE
510 MVA CTD15,R7
511 SVC OUT PRINT 'TCS'
512 MVA CTD02,R7
513 SVC OUTIN PRINT 'ENTRY NUMBER' ENTER IN HEX
514 MVB CTD04,P1 CTD04 = ENTRY NUMBER ENTERED
515 SLL 8,R1
516 SRL 8,R1
517 CWI 1,R1 CORRECT ENTRY 1 TO 255
518 JLT TCS04
519 MVB CTABU*,R7
520 SRL 8,R7
521 CWI 8,R1
522 JLE TCS05
523 * INCORRECT ENTRY
524 MVA CTW40,R7
525 SVC OUT PRINT 'INVALID ENTRY'
526 JZ TCS03
527 * ENTRY CORRECT
528 MW CTW16,R1 ENTRY NO X 16 = ENTRY START BYTE
529 MVB CTAB0,R2 CONFIGURATION TABLE ADDRESS
530 AW R2,R1 R1 = ADDRESS OF TCS TABLE ENTRY
531 TBTS (R1,22) SET TCS BIT IN ENTRY
532 B PUFIN
533 *****
534 * END TCS ENTRY IN CONFIGURATION TABLE
535 *****
536 *****
537 *****
538 * OPTION 0A = ADD FLOATING POINT
539 *****
540 FLOAT BAL CLEAR,R7 CLEAR CTE04
541 MVB CDT3D,CTE04+ONE DEVICE TYPE 3D
542 BAL NEXTE,R7 ENTER ENTRY INTO CONFIG TABLE
543 B PUFIN
544 ***** END ADD FLOATING POINT *****
545 *****
546 * OPTON 0B = ADD BASIC OEMIA ENTRY
547 *****
548 *****
549 OEMIA BAL CLEAR,R7 CLEAR CTE04
550 MVA CTD20,R7
551 SVC OUTIN PRINT 'ADDRESS', BYTE INTO CTE04
552 MVB CDTA3,CTE04+ONE DEVICE TYPE A3
553 BAL NEXTE,R7 ENTER ENTRY INTO CONFIG TABLE
554 B PUFIN
555 ***** END ADD BASIC OEMIA *****
556 *****
557 * COPY COMMON SUBROUTINES
558 *****
559 *****
560 COPY DNSUB1
561 *****
562 * ** TITLE **
563 * 'CONFIGURATION COMMON SUBROUTINES' *
564 *****
565 *****
566 *****
567 * SYSTEM EQUATES - WAS MEMBER DCPEQUNA
568 *
569 *
570 *****
571 SM EQU 1 SUMMARY MASK DISABLE OR
572 * ENABLE CODE
573 AT EQU 2 ADDRESS TRANSLATOR ENABLE OR
574 * DISABLE CODE
575 *****
576 *
577 * EQUATED NAMES FOR SUPPORTED SVC'S
578 *
579 *****
580 OUT EQU 0 OUT SVC
581 OUTIN EQU 1 OUTIN SVC
582 IDLE EQU 2 IDLE SVC
583 ASCII EQU 3 HEX TO ASCII SVC
584 CHNGE EQU 4 CHANGE LEVEL SVC
585 PGCHK EQU 5 ALLOW RETURN ON PROGRAM CHECK SVC
586 EXIT EQU 6 EXIT SVC

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587 TERM EQU 7 TERMINATE SVC
588 RESET EQU 8 RESET DEVICE SVC
589 RID EQU 9 READ ID SVC
590 START EQU 10 START CYCLE STEAL SVC
591 STCSS EQU 11 START CYCLE STEAL STATUS SVC
592 PREP EQU 12 PREPARE DEVICE SVC
593 READ0 EQU 13 READ WITH FUNCTION BIT 3 OFF SVC
594 READ1 EQU 14 READ WITH FUNCTION BIT 3 ON SVC
595 RSTAT EQU 15 READ STATUS SVC
596 WRIT0 EQU 16 WRITE WITH FUNCTION BIT 3 OFF SVC
597 WRIT1 EQU 17 WRITE WITH FUNCTION BIT 3 ON SVC
598 CTRL EQU 18 CONTROL SVC
599 RICB EQU 19 RELEASE INTERRUPT CONTROL BLOCK SVC
600 CICB EQU 20 CONNECT INTERRUPT CONTROL BLOCK SVC
601 HIO EQU 21 HALT I/O SVC
602 REOSD EQU 22 REQUEST USE OF DCP DISK SVC
603 RELSD EQU 23 RELEASE USE OF DCP DISK SVC
604 HALT EQU 24 HALT SVC
605 ETOH EQU 25 EBCDIC TO HEX SVC (STRING)
606 HTOE EQU 26 HEX TO EBCDIC SVC (STRING)
607 ATOH EQU 27 ASCII TO HEX SVC (STRING)
608 HTOA EQU 28 HEX TO ASCII SVC (STRING)
609 ETOA EQU 29 EBCDIC TO ASCII SVC (STRING)
610 ATOE EQU 30 ASCII TO EBCDIC SVC (STRING)
611 READI EQU 31 READ DATA SETS FOR MDI/UTIL
612 WRITI EQU 32 WRITE DATA SETS FOR UTIL
613 *
614 VLDSV EQU 32 NUMBER OF HIGHEST VALID SVC
615 *****
616 *****
617 *
618 * EQUATES USED BY DCP
619 *
620 *****
621 AUTO EQU 0 AUTOMATIC MODE IND
622 TPGSW EQU 0 TERMINATE PGM SW
623 LOOP EQU 1 LOOP PGM IND
624 OFF EQU 2 TURN OPT BITS OFF
625 ON EQU 2 TURN OPT BITS ON
626 UTIL EQU 3 UTILITY REQUESTING DATA
627 LODED EQU 4 PGM LOADED
628 STOP EQU 6 STOP AFTER MSG OUT
629 ALTDV EQU 7 ALTERNATE OUTPUT DEV ASSIGNED
630 NXYVT EQU 8 TAKE NEXT DATA SET IND
631 IRD EQU 10 MDI READ REQUEST
632 RTHDI EQU 11 MDI RETURN REQ
633 TUIDS EQU 12 SAVE THE 3.U. I.D.
634 LDIAG EQU 13 LOOP ALL DIAG PACKAGE
635 CNRUN EQU 14 UNIT ADR ASSIGNMENT RUN
637 NINTL EQU 3 HIGHEST INT LEVEL ON SYSTEM
638 MDIRT EQU 48 MDI IMMEDIATE RETURN IN CNTL BLK
639 OPWRD EQU 14 DISP TO PGM OPTION WORD
641 EOT EQU X'0D' END OF MESSAGE CHAR (RETURN)
642 TTBEL EQU X'11' ATTN CHAR (X-ON)
643 DLETE EQU X'7F' DELETE CHAR (RUBOUT)
644 PLUS EQU C'+ PLUS CHAR
645 MINUS EQU C-' MINUS CHAR
646 EBBB EQU C' BLANK CHAR
648 NEBZR EQU X'1800' NEGATIVE AND ZERO INDICATORS
649 STPCD EQU X'64' STOP CODE FOR MEMORY
650 SMTBT EQU X'0010' SUMMARY MASK BIT
651 ONE EQU 1 VALUE OF 0
652 TWO EQU 2 1
653 THREE EQU 3 2
654 FOUR EQU 4 3
655 FIVE EQU 5 4
656 SIX EQU 6 5
657 SEVEN EQU 7 6
658 EIGHT EQU 8 7
659 NINE EQU 9 8
660 TEN EQU 10 9
661 ELEVN EQU 11 10
662 TWELV EQU 12 11
663 THRTN EQU 13 12
664 FORTN EQU 14 13
665 FIVTN EQU 15 14
666 SIXTN EQU 16 15
667 SEVTN EQU 17 16
668 TWNTY EQU 20 17
669 TWENTY EQU 21 20
670 TWEN3 EQU 23 21
671 TWEN5 EQU 25 23
672 TWEN6 EQU 26 25
673 TWEN8 EQU 28 26
674 THRTY EQU 30 28
675 FIFT EQU 57 30
676 SIXTY EQU 60 57
677 SIXTY EQU 64 60
678 SIXTY EQU 66 64
679 SIXTY EQU 66 66
680 SEVN5 EQU 75 66
681 ONE92 EQU 192 75
682 TWO08 EQU 208 192
683 TWOS2 EQU 352 208
684 FOURK EQU 4096 352
685 HTHTY EQU X'30' HEX 30
686 H3FFE EQU X'3FFE' HEX 3FFE
687 M1 EQU -1
688 M2 EQU -2
689 M3 EQU -3
690 M16 EQU -16
691 M28 EQU -28
692 M30 EQU -30
693 PKLAB EQU C'PC'
694 PKLBB EQU C'PB'
700 *****
701 *
702 * EQUATES FOR DISK
703 *
704 *****
705 BOE EQU 6 DISP TO BOE FROM START OF
706 * ENTRY IN VTOC
707 EOE EQU 8 DISP TO EOE FROM START OF
708 * ENTRY IN VTOC

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00000C 709 DSTYP EQU 12 DISP TO TYPE OF DATA SET IN
710 * ENTRY OF VTDC
711 SPTE EQU 15 NUMBER SECTORS/TRACK
712 DTP2A EQU 15 ADDR 1ST DIPL2 SECTOR
713 EDIP2 EQU 30 ADDR LAST DIPL2 SECTOR+1
714 PRC1A EQU 120 ADDR 1ST PROC1 SECTOR
715 EPRC1 EQU 180 ADDR LAST PROC1 SECTOR+1
716 PRC2A EQU 180 ADDR 1ST PROC2 SECTOR
717 EPRC2 EQU 240 ADDR LAST PROC2 SECTOR+1
718 PRC3A EQU 240 ADDR 1ST PROC3 SECTOR
719 EPRC3 EQU 300 ADDR LAST PROC3 SECTOR+1
720 VTOCA EQU 330 ADDR 1ST VTDC SECTOR
721 EVTOC EQU 360 ADDR LAST VTDC SECTOR+1
722 LDSST EQU 2219 ADDR LAST SECTOR ON DISK
723 FDSST EQU 360 ADDR 1ST DATA SECTOR
724 DCPCY EQU 10 CYLINDER DCP ON
725 LVTE EQU 32 LENGTH IN BYTES OF A VTDC ENTRY
726 NDFPS EQU 8 NUMBER ENTRIES/SECTOR IN VTDC
727 CHDLG EQU 4 DISP TO DATA IN MULT SECT'S
728 HDLGE EQU 14 NUMBER BYTES OF HEADER INFORMATION
729 HDLPE EQU 14 NUM BYTES PAST ALL HEADER INFO
730 VHDLP EQU 30
731 * ON 1ST SECTOR OF EACH PROGRAM DATA SET
732 *
733 * *****
734 * EQUATES FOR CODED STOPS USED BY DCP *****
735 * (NORMAL AND ERROR) *****
736 *
737 * *****
738 * *****
739 * *****
740 RECD1 EQU X'3800' DCP WAIT
741 ACNG EQU X'3801' ALTERNATE CONSOLE ERROR
742 PCRC EQU X'3802' PROGRAM CHECK ERROR
743 MCKCD EQU X'3803' MACHINE CHECK ERROR
744 PTMNG EQU X'3804' POWER THERMAL ERROR
745 PSTER EQU X'3805' PROGRAM TERM
746 INVCD EQU X'3806' INVALID COMMAND ERROR
747 ALTCN EQU X'3807' ALT IN/OUT UNDER TEST
748 RES EQU X'3808' ALT IN/OUT ON LINE
749 UXP EQU X'3809' UNEXPECTED I/O INTERRUPT
750 BPCD5 EQU X'380A' PROGRAM STARTED
751 LPCD4 EQU X'380B' DISK ERROR
752 LPCD5 EQU X'380C' PROGRAM NOT FOUND
753 LPCD6 EQU X'380D' PROGRAM LOADED
754 HTCD EQU X'380E' HALT SVC
755 RPCD2 EQU X'3810' PROGRAM NOT EXPECTING REPLY
756 RPCD5 EQU X'3812' PROGRAM EXPECTING HEX DATA
757 ERR1 EQU X'3813' TOO MANY CHARACTERS ENTERED
758 ENTCD EQU X'3814' ASK FOR DATA ENTRY
759 SVCOD EQU X'3815' TOO MANY SVC CALLS
760 *
761 * *****
762 * THE FOLLOWING EQUATES ARE THE DISPLACEMENT FROM THE *****
763 * START OF A PROGRAM HEADER OF THE VARIOUS INFORMATION IN *****
764 * EACH PROGRAM HEADER *****
765 * *****
766 * *****
767 * *****
768 HID EQU 0 PROG I.D.
769 DVADR EQU 0 DEVICE TYPE IN DEVICE TABLE
770 DVTYP EQU 1 DEVICE ADR IN DEVICE TABLE
771 HDDP1 EQU 3 DEVICE DEPENDENT DATA
772 HDDP2 EQU 4 DEVICE DEPENDENT DATA
773 CPUMD EQU 4 CPU MODEL DISPLACEMENT
774 LSADR EQU 6 LAST ADR DISPLACEMENT
775 HPK EQU 6 PROTECT KEY
776 HPR1 EQU 7 PROTECT KEY PLUS ONE
777 HPSA EQU 6 DIAG PROG START ADR
778 INTAR EQU 6 DEVICE INTERRUPT ADR
779 HDVTE EQU 08 DIAG DEV TABLE POINTER
780 EXPNT EQU 17
781 TBEND EQU 18 END OF TABLE IND
782 SCEND EQU 19 END OF SECTOR IND
783 CICBT EQU 20 C I C B INDICATOR
784 CFEXT EQU 08
785 HTUID EQU 18 MDI MAP I.D DISPLACEMENT
786 UDTAS EQU 16 UNIT ASSIGNED BIT
787 PDTAS EQU 32
788 UNCR1 EQU 0 UNCONDITIONAL RETURN BIT
789 CKDAD EQU 1 CHECK REQUESTED DEV
790 IOCHK EQU 11 I/O CHK IN PSW
791 NEWAR EQU 15
792 * *****
793 * *****
794 * THE FOLLOWING EQUATES ARE THE OFFSETS INTO EACH ENTRY *****
795 * FOR THE DATA SPECIFIED. (16 BYTES / ENTRY) *****
796 * *****
797 * *****
798 CUDA EQU 0 DEVICE ADDRESS
799 CUDT EQU 1 DEVICE TYPE
800 CUDF EQU 2 CONTROL FLAGS
801 CUDD1 EQU 3 DEVICE DEPENDENT DATA -- 1
802 CUDD2 EQU 4 DEVICE DEPENDENT DATA -- 2
803 CUDD3 EQU 5 DEVICE DEPENDENT DATA -- 3
804 CUDD4 EQU 6 DEVICE DEPENDENT DATA -- 4
805 CUDD5 EQU 7 DEVICE DEPENDENT DATA -- 5
806 CUDD6 EQU 8 DEVICE DEPENDENT DATA -- 6
807 CUDD7 EQU 9 DEVICE DEPENDENT DATA -- 7
808 CUDD8 EQU 10 DEVICE DEPENDENT DATA -- 8
809 CUDD9 EQU 11 DEVICE DEPENDENT DATA -- 9
810 CUDDA EQU 12 DEVICE DEPENDENT DATA -- 10
811 CUDDB EQU 13 DEVICE DEPENDENT DATA -- 11
812 CUDRI EQU 14 DEVICE READ ID DATA RETURNED
813 * *****
814 * *****
815 * *****
816 * THE FOLLOWING EQUATES ARE THE DISPLACEMENTS FROM THE *****
817 * START OF A QUE BLOCK OF THE VARIOUS INFORMATION. *****
818 * *****
819 * *****
820 QIAR EQU 0 IARB OF CALLING PROGRAM
821 QAKR EQU 2 KEY REG
822 QLSR EQU 4 LSR OF CALLING PROGRAM
823 QRO EQU 6 XR0 OF CALLING PROGRAM
824 QR1 EQU 8 XR1 OF CALLING PROGRAM
825 QR2 EQU 10 XR2 OF CALLING PROGRAM

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00000C 826 QR3 EQU 12 XR3 OF CALLING PROGRAM
00000E 827 QR4 EQU 14 XR4 OF CALLING PROGRAM
000010 828 QR5 EQU 16 XR5 OF CALLING PROGRAM
000012 829 QR6 EQU 18 XR6 OF CALLING PROGRAM
000014 830 QR7 EQU 20 XR7 OF CALLING PROGRAM
000016 831 OSVC EQU 20 SVC NUMBER OF CALLING PROGRAM
000017 832 ORAL EQU 23 RETURN CODE AND LEVEL ENTERED
833 * INTO SVC ON
000018 834 QAV1 EQU 24 AVAILABLE WORD 1
00001A 835 QAV2 EQU 26 AVAILABLE WORD 2
837 * *****
838 * *****
839 * THE FOLLOWING EQUATES ARE THE DISPLACEMENTS FROM THE START *****
840 * OF EACH SLOT IN THE DEVICE TABLE TO THE VARIOUS *****
841 * INFORMATION IN EACH SLOT *****
842 * *****
843 * *****
844 * *****
845 * *****
846 * *****
847 * *****
848 * *****
849 * *****
850 OCC EQU 7 *****
851 * *****
852 * *****
853 * *****
854 * DATA FOR COMMON SUBROUTINES *****
855 * *****
856 * *****
857 * *****
858 OLIRA DC A(8-*) OVERLAY RETURN ADDRESS
859 ALTR DC X'0230' ADDRESS IN DCP LAST USABLE STORAGE
860 CTMSZ DC X'0240' ADDRESS IN DCP ALT CONSOLE ADDR-TYPE
861 AOPTN1 DC X'180E' ADDRESS IN BASIC OF OPTION WORD 1
862 * *****
863 CTNAD EQU 256 # DEVICE ADDRESSES
864 * *****
865 CDT3D DC X'3D' FLOATING POINT
866 CDT3E DC X'3E' TCS
867 CDT40 DC X'40' TTY
868 CDT44 DC X'44' CRT
869 CDT45 DC X'45' DISPLAY
870 CDT54 DC X'54' PRINTER
871 CDT68 DC X'68' 4973 PRINTER
872 CDTA0 DC X'A0' S/IO
873 CDTA3 DC X'A3' S/IO
874 CDTA4 DC X'A4' S/IO
875 CDTA8 DC X'A8' S/IO
876 CDTA9 DC X'A9' S/IO
877 CDTB0 DC X'B0' S/IO
878 CDTB4 DC X'B4' S/IO
879 CDTB8 DC X'B8' COM SYS
880 CDTF1 DC X'E1' COM SYS
881 * *****
882 CTC01 DC X'01' CONSTANT
883 CTC02 DC X'02' CONSTANT
884 CTC03 DC X'03' CONSTANT
885 CTC04 DC X'04' CONSTANT
886 CTC05 DC X'05' CONSTANT
887 CTC06 DC X'06' CONSTANT
888 CTC07 DC X'07' CONSTANT
889 CTC14 DC H'14' CONSTANT 1 BYTE
890 CTCFF DC X'FF' CONSTANT 255
891 * *****
892 * *****
893 * *****
894 * *****
895 * *****
896 * *****
897 * *****
898 CAEAD DC X'00' ADDRESS - WORD
899 CAEAE DC X'00' ADDRESS - BYTE
900 CAETY DC X'00' TYPE - WORD
901 CAETZ DC X'00' TYPE - BYTE
902 * *****
903 * *****
904 * *****
905 * *****
906 * *****
907 * *****
908 * *****
909 * *****
910 * *****
911 * *****
912 * *****
913 * *****
914 * *****
915 * *****
916 * *****
917 * *****
918 * *****
919 * *****
920 * *****
921 * *****
922 * *****
923 * *****
924 * *****
925 * *****
926 * *****
927 * *****
928 * *****
929 * *****
930 * *****
931 * *****
932 * *****
933 * *****
934 * *****
935 * *****
936 * *****
937 * *****
938 * *****
939 * *****
940 * *****
941 * *****

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002220 3008 942 CTABN DC X'3008' ADDRESS ALT CONSOLE ADD-TYPE
002222 3010 943 CTA1E DC X'3010' ADDRESS 1ST REAL ENTRY
002224 3FF0 944 CTABF DC X'3FF0' ADDRESS LAST ENTRY
002226 00 945 DC X'00' KEEP READI STORAGE ADDRESS ON WD.BD.
002227 E4F3F8C6F1 946 CTRL1 DC C'038F1' CONFIGURATION TABLE NAME
00222C 0000 947 CTRL2 DC X'0000' STORAGE ADDRESS FOR CTRL1
948 * ALIGN WORD
949 * 255 = MAX # ENTRIES IN CONFIG TABLE
00222E 00 950 CTMNE DC X'00'
00222F FF 951 CTMNF DC X'FF'
952 * *****
953 * CONFIGURATION TABLE FIELD EXPANSION
954 *
954 * ALIGN WORD
955 CTDA DC X'00' DEVICE ADDRESS
956 CTDI DC X'00' DEVICE TYPE
957 CTCT DC B'00000000' CONTROL FLAGS
958 * BIT 0 - USED BY DCP
959 * 1 - CHAIN ENTRIES
960 * 2 - LAST USED ENTRY IN TABLE
961 * 3 - LAST USED ENTRY IN EACH SECTOR
962 * 4 - USED BY DCP
963 * 5 - USED BY DCP
964 * 6 - TCS DEVICE
965 * 7 - END OF TABLE
002233 00 966 CTDD1 DC B'00000000' DEVICE DEPENDENT
002234 00 967 CTDD2 DC B'00000000' DEVICE DEPENDENT
002235 00 968 CTDD3 DC B'00000000' DEVICE DEPENDENT
002236 00 969 CTDD4 DC B'00000000' DEVICE DEPENDENT
002237 00 970 CTDD5 DC B'00000000' DEVICE DEPENDENT
002238 00 971 CTDD6 DC B'00000000' DEVICE DEPENDENT
002239 00 972 CTDD7 DC B'00000000' DEVICE DEPENDENT
00223A 00 973 CTDD8 DC B'00000000' DEVICE DEPENDENT
00223B 00 974 CTDD9 DC B'00000000' DEVICE DEPENDENT
00223C 00 975 CTDDA DC B'00000000' DEVICE DEPENDENT
00223D 00 976 CTDDB DC B'00000000' DEVICE DEPENDENT
00223E 00 977 CTDDI DC X'00' DEVICE READ ID RESULTS
00223F 00 978 CTDI2 DC X'00' DEVICE READ ID RESULTS - BYTE 2
979 * ALIGN WORD
980 * *****
981 * CONFIG TABLE MESSAGES = 3820 -384F
982 * CONTROL BLOCK HTOE
002240 0001 983 CNM25 DC X'0001' HEX DATA 1 BYTES
002242 21E9 984 DC A(CTSE) DATA ADDRESS
002244 2254 985 DC A(CTE02) EBCDIC OUT BUFFER - ENTRY #
986 * CONTROL BLOCK HTOE
002246 0010 987 CTM20 DC A(16) # BYTES HEX DATA
002248 0000 988 CTM21 DC A(0) DATA ADDRESS (HEX)
00224A 2258 989 CTM22 DC A(CTE04) BUFFER ADDRESS (EBCDIC)
990 *
991 * COMMON TABLE ENTRY
00224C 384C 992 DC X'384C'
00224E C5D5E3D9E840 993 CTE01 DC C'ENTRY '
002254 4040 994 CTE02 DC C' '
002256 6060 995 CTE03 DC C'-' '
002258 4040 996 CTE04 DC C'-' '
00225A 4040404040404040 997 CTE05 DC C'-' '
002278 00 998 CTE06 DC X'00'
999 *
1000 *
1001 * CONTROL BLOCK OUTIN
1002 * ALIGN WORD
00227A 00C0 1003 DC X'00C0'
00227C 2286 1004 CMD20 DC A(CMD21)
00227E 22E0 1005 DC A(CMD22)
002280 0002 1006 DC A(2)
002282 0001 1007 DC A(1)
1008 *
002284 3821 1008 DC X'3821'
002286 C1D3E3C5D9D5C1E3C 1009 CMD21 DC X'00' ALTERNATE CONSOLE DEVICE ADDRESS AND TYPE'
0022AF 00 1010 DC X'00'
1011 *
1012 * INPUT
1013 * ALIGN WORD
0022B0 00 1014 CMD22 DC X'00' ADDRESS
0022B1 00 1015 CMD23 DC X'00' TYPE
0022B2 00 1016 DC X'00'
1017 *
1018 * CONTROL BLOCK OUTPUT
1019 * ALIGN WORD
0022B3 00 1020 DC X'00C0'
0022B4 00C0 1021 DC A(CMD26)
0022B6 22BC 1022 DC A(-1)
0022B8 FFFF 1023 DC A(-1)
1024 *
0022BA 3829 1024 DC X'3829'
0022BC D5D640C4C5E5C9C3C 1025 CMD26 DC C'NO DEVICE'
0022C5 00 1026 DC X'00'
1027 *
1028 * CONTROL BLOCK OUTPUT
1029 * ALIGN WORD
0022C6 00C0 1030 DC X'00C0'
0022C8 22CE 1031 CMD30 DC A(CMD31)
0022CA FFFF 1032 DC A(-1)
1033 *
0022CC 3832 1033 DC X'3832'
0022CE D7D9D6C7D9C1D4D4C 1034 CMD31 DC C'PROGRAMMER OR CE CONSOLE'
0022E6 00 1035 DC X'00'
1036 *
1037 * *****
1038 * END OF CDATA
1039 * *****
0022E7 00 1040 * ALIGN WORD
1041 * *****
1042 * *****
1043 *
1044 * BEGIN COMMON SUBROUTINES
1045 *
1046 *
1047 *
1048 * *****
1049 * *****
1050 * *****
1051 * PROCEDURE SEARCH MEMBER=CSEARCH
1052 * SEARCH CONFIGURATION TABLE FOR A DEVICE ADDRESS
1053 * R7 CONTAINS RETURN TO ADDRESS
1054 * INPUT:
1055 * CTSA = DEVICE ADDRESS TO SEARCH FOR
1056 * CTSEN = ENTRY # TO START SEARCH AT
1057 * CBPA3 = 1 TO BYPASS A3 OEMIA ENTRIES

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1058 * CBPA4 = 1 TO BYPASS A4 KITE ENTRIES
1059 * OUTPUT:
1060 * CTSEF = 0 IF ADDRESS IS NOT FOUND
1061 * CTSEF = ENTRY # IF ADDRESS FOUND 1-63
1062 * CTSEA = START ADDRESS OF ENTRY IF FOUND
1063 * *****
1064 * *****
1064 CSRCH EOU
1065 CSX01 MVB CTABA,R1 CONFIGURATION TABLE ADDRESS
1066 MVB (R1,2),R2 R2 = # ENTRIES IN TABLE
1067 MVB CTSEN,R6 ENTRY # TO START SEARCH AT
1068 MVB R6,CTSEF FIRST ENTRY FOUND #
1069 MW CTW16,R6
1070 AW R6,R1 R1 = ADDRESS OF ENTRY TO START SEARCH
1071 CSX02 CB CTSA2,(R1)
1072 CSX04 JE
1073 CSX03 AWI 16,R1 J IF ADDRESS FOUND
1074 AWI 1,CTSEF INCREMENT ADDRESS
1075 CW CTSEF,R2 INCREMENT ENTRY #
1076 JGE CSX02 J IF MORE ENTRIES TO CHECK
1077 MVBZ CTSEF,R6 0=ADDRESS NOT FOUND IN CONFIG TABLE
1078 * CSX08
1079 * ENTRY FOUND
1080 CSX04 MVB CBPA4,R6 CK BYPASS A4 KITE FLAG
1081 JZ CSX05
1082 *
1083 * BYPASS A4 KITE ENTRIES
1084 CB CDTA4,(R1,1) KITE DEVICE TYPE = A4
1085 JE CSX03 BYPASS & CONTINUE SEARCH
1086 CSX05 MVB CBPA3,R6 CK BYPASS A3 OEMIA FLAG
1087 JZ CSX06
1088 *
1089 * BYPASS A3 KITE OEMIA ENTRIES
1090 CB CDTA3,(R1,1) OEMIA DEVICE TYPE = A3
1091 JE CSX02 BYPASS & CONTINUE SEARCH
1092 *
1093 * BYPASS 3D FLOATING POINT ENTRIES
1094 CSX06 CB CDT3D,(R1,1) FLOATING POINT DEVICE TYPE = 3D
1095 JE CSX03 BYPASS & CONTINUE SEARCH
1096 *
1097 * BYPASS E0 COM SYS ENTRIES
1098 CB CDTED,(R1,1) COM SYS DEVICE TYPE = E0
1099 JE CSX03 BYPASS & CONTINUE SEARCH
1099 *
1099 CSX08 MVB R1,CTSEA
1099 B (R7) RETURN
1099 *****
1100 * END OF SEARCH PROCEDURE
1101 * *****
1102 * *****
1103 * *****
1104 * PROCEDURE READID MEMBER=CREADID
1105 * READ DEVICE ID
1106 * DEVICE ADDRESS LOCATED AT CTIDA
1107 * DEVICE ID RETURNED IN CTIID
1108 * *****
1109 * DATA DEFINITION
1110 CTIT2 DC X'0000' 2ND TRY FLAG
1111 CTICT DC X'0000' WAIT LOOP COUNTER
1112 * CONTROL BLOCK FOR SVR RID AT AYI04
1113 CTI04 DC A(CTIDA) DEVICE ADDRESS POINTER
1114 DC A(CYI10) ERROR RETURN ADDRESS
1115 DC A(0) RESERVED
1116 DC A(0) RESERVED
1117 DC A(0) ADDRESS OF SVC LAST USING
1118 CTI05 DC X'0000' RETURNED DEVICE ID
1119 *
1120 CTIDD DC X'00' DUMMY TO CONVERT DEVICE ADD TO EBCDIC
1121 CTIDA DC X'00' DEVICE ADDRESS (BYTE)
1122 CTICA DC X'00' DEVICE ADDRESS FOR R3
1123 CTICC DC X'00' CONDITION CODE FOR R3
1124 * ALIGN WORD
1125 CTIID DC X'0000' RETURNED DEVICE ID
1126 CTDIF DC X'0000' DEVICE FOUND ON ADDRESS FLAG
1127 *
1128 * CONTROL BLOCK OUTPUT
1129 * ALIGN WORD
1130 DC X'00C0'
1131 CTI15 DC A(CTI16)
1132 DC A(-1)
1133 * OUTPUT MESSAGE
1134 DC X'3844'
1135 CTI16 DC C'ERROR-READ ID D.A.= '
1136 CTI17 DC C' ' DEVICE ADDRESS
1137 DC C' CC= '
1138 CTI18 DC C' ' CONDITION CODE
1139 DC X'00'
1140 * ALIGN WORD
1141 CTI20 DC C'01' EBCDIC CHARACTERS
1142 CTI30 DC C'02'
1143 CTI35 DC C'03'
1144 CTI40 DC C'04'
1145 CTI45 DC C'05'
1146 CTI50 DC C'06'
1147 CTI55 DC C'07'
1148 * CONTROL BLOCK HTOE
1149 CTI60 DC X'002'
1150 DC A(CTID)
1151 DC A(CTI17)
1152 * *****
1153 * *****
1154 * PROGRAM START
1155 CYRID NOP
1156 CYI01 MVB R7,R6 SAVE CONTENTS OF R7 TO RETURN
1157 CYI05 MVB 0,CTIDF RESET DEVICE FOUND FLAG
1158 MVB 0,CTIID RESET DEVICE ID
1159 MVB 0,CCERR RESET CC ERROR FLAG
1160 *
1161 * START READ DEVICE ID
1162 MVA CTI04,R7
1163 SVC RID START READ ID
1164 *
1165 * READ ID COMPLETE AND CC=7
1166 MVB CTI05,CTIID RETAIN ID RETURNED
1167 MVB 1,CTIDF SET DEVICE FOUND FLAG
1168 MVB 0,CTIDF RESET 2ND TRY FLAG
1169 MVB 0,CTIT2 J TO END OF PROC
1170 J CYI70
1171 * *****
1172 * *****
1173 * RETURN AFTER RID - CC NOT = 7 OR CC=7 FROM CONTROL BLOCK
1174 * TEST CONDITION CODES RETURNED
1175 CYI10 JEV CYI40 J ON EVEN
1176 JCY CYI30 J ON CARRY
1177 BOV CYI20 J ON OVERFLOW

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1173 * DEVICE NOT ATTACHED
1174 J CYI70
1175 * ERROR ON RID TO AN ADDRESS
1176 BUSY
1177 CYI20 1,CTIT2 CC=1
1178 JVT 1,CTI25
1179 * 1ST CC=1 FOUND J IF 2ND CC=1
1180 MVWI 1,CTIT2 SET 2ND TRY FLAG
1181 MVA CTI04,R7
1182 SVC RESET RESET DEVICE WITH CC=1
1183 * WAIT LOOP AFTER RESET
1184 MVWI 0,CTICT RESET LOOP COUNTER
1185 CYI22 SVC IDLE 200 USEC DELAY
1186 ANI 1,CTICT INCREMENT LOOP COUNTER
1187 CNI 400,CTICT
1188 JLT CYI22 J TO CONTINUE WAIT
1189 J CYI05 J TO RETRY READID
1190 *
1191 * 2ND CC=1 FOUND - ERROR
1192 CYI25 MVWI 0,CTIT2 RESET 2ND TRY FLAG
1193 MVW CTI20,CTI18
1194 MVB CTC01,CTICC
1195 J CYI60
1196 CYI30 BOV CYI35
1197 * BUSY AFTER RESET
1198 MVW CTI30,CTI18 CC=2
1199 MVB CTC02,CTICC
1200 J CYI60
1201 * COMMAND REJECT
1202 CYI35 MVW CTI35,CTI18 CC=3
1203 MVB CTC03,CTICC
1204 J CYI60
1205 CYI40 JCY CYI50
1206 BOV CYI45
1207 * INTERVENTION REQUIRED
1208 MVW CTI40,CTI18 CC=4
1209 MVB CTC04,CTICC
1210 J CYI60
1211 * INTERFACE DATA CHECK
1212 CYI45 MVW CTI45,CTI18 CC=5
1213 MVB CTC05,CTICC
1214 J CYI60
1215 CYI50 BOV CYI55
1216 * CONTROLLER BUSY
1217 MVW CTI50,CTI18 CC=6
1218 MVB CTC06,CTICC
1219 J CYI60
1220 * SATISFACTORY
1221 CYI55 MVW CTI55,CTI18 CC=7
1222 MVB CTC07,CTICC
1223 J CYI60
1224 * DO NOT PRINT ERROR IF INITIAL CONFIGURATING
1225 CYI60 CNI X'0010',CINCF CK IF INITIAL CONFIGURATING
1226 JVT 1,CTI70 BYPASS CC ERROR PRINT IN INIT CONFIG
1227 * DO NOT PRINT ERROR, DO SET ERROR FLAG IF 1ST PASS CHECK OVERLAY
1228 CNI 1,PASS1
1229 JVT 1,CTI65
1230 * CONVERT DEVICE ADDRESS TO EBCDIC
1231 MVA CTI60,R7
1232 SVC HTOE
1233 * PRINT ERROR MESSAGE
1234 MVB CTIDA,CTICA DEVICE ADDRESS FOR R3
1235 MVW CTICA,R3 R3 = DEVICE ADDRESS & CC AFTER ERROR
1236 MVA CTI15,R7
1237 SVC OUT PRINT 'ERROR...CC = ..'
1238 CYI65 MVWI 1,CCERR SET CC ERROR FLAG
1239 * END PROC - RETURN
1240 CYI70 B (R6)
1241 *****
1242 * END PROCEDURE READID
1243 *****
1244 *****
1245 *****
1246 * PROCEDURE CDEVT
1247 * FIND DEVICE TYPE FROM RESULT OF READID
1248 * INPUT R5 = DEVICE TYPE (OPTIONAL)
1249 * INPUT R6 = READ ID
1250 * OUTPUT R7 = DEVICE TYPE
1251 * OUTPUT CDEVT1 & 2 = DEVICE NAME (EBCDIC)
1252 * R1, R3 & R4 ARE NOT CHANGED
1253 * IF DEVICE ID IS NOT RECOGNIZED: R6 RETURNED = 0000
1254 * R5 RETURNED = 0000
1255 *****
1256 * DATA DEFINITION
1257 * DEVICE NAME TABLE
1258 DNTAB DC X'0010' READ ID
1259 DC X'0000' MASK
1260 DC X'0040' DEVICE TYPE
1261 DC C'TTY' DEVICE NAME
1262 DC X'0206' READ ID
1263 DC X'0000' MASK
1264 DC X'0064' DEVICE TYPE
1265 DC C'PRINTER' DEVICE NAME
1266 DC X'0306' READ ID
1267 DC X'0000' MASK
1268 DC X'0068' DEVICE TYPE
1269 DC C'PRINTER' DEVICE NAME
1270 DC X'0106' READ ID
1271 DC X'0000' MASK
1272 DC X'0048' DEVICE TYPE
1273 DC C'DISKETTE' DEVICE NAME
1274 DC X'0126' READ ID
1275 DC X'0000' MASK
1276 DC X'004A' DEVICE TYPE
1277 DC C'DISKETTE' DEVICE NAME
1278 *
1279 DC X'00AA' READ ID
1280 DC X'0000' MASK
1281 DC X'0078' DEVICE TYPE
1282 DC C'DISK' DEVICE NAME DUTCHESS
1283 DC X'00EA' READ ID
1284 DC X'0000' MASK
1285 DC X'0078' DEVICE TYPE
1286 DC C'DISK' DEVICE NAME DUTCHESS
1287 DC X'00CA' READ ID

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002514 0000 1288 DC X'0000' MASK
002516 0078 1289 DC X'0078' DEVICE TYPE
002518 C4C9E2D240404040 1290 DC C'DISK' DEVICE NAME DUTCHESS
002520 00A2 1291 DC X'00A2' READ ID
002522 0000 1292 DC X'0000' MASK
002524 0079 1293 DC X'0079' DEVICE TYPE
002526 C4C9E2D240404040 1294 DC C'DISK' DEVICE NAME VTL
002528 00B2 1295 DC X'00B2' READ ID
002530 0000 1296 DC X'0000' MASK
002532 0079 1297 DC X'0079' DEVICE TYPE
002534 C4C9E2D240404040 1298 DC C'DISK' DEVICE NAME VTL
002536 3106 1299 DC X'3106' READ ID
002538 0000 1300 DC X'0000' MASK
002540 007A 1301 DC X'007A' DEVICE TYPE
002542 C4C9E2D240404040 1302 DC C'DISK' DEVICE NAME
1303 *
002544 0406 1304 DC X'0406' READ ID
002546 0000 1305 DC X'0000' MASK
002548 0044 1306 DC X'0044' DEVICE TYPE
002550 C4C9E2D7D3C1E840 1307 DC C'DISPLAY' DEVICE NAME CRT
002552 040E 1308 DC X'040E' READ ID
002554 0000 1309 DC X'0000' MASK
002556 C4C9E2D7D3C1E840 1310 DC X'0045' DEVICE TYPE
002558 0045 1311 DC C'DISPLAY' DEVICE NAME 4978 DISPLAY
1312 *
002560 0028 1313 DC X'0028' READ ID
002562 0000 1314 DC X'0000' MASK
002564 0050 1315 DC X'0050' DEVICE TYPE
002566 E3C9D4C5D9404040 1316 DC C'TIMER' DEVICE NAME
1317 *
002574 C010 1318 DC X'C010' READ ID
002576 0000 1319 DC X'0000' MASK
002578 00A0 1320 DC X'00A0' DEVICE TYPE
002580 C9D5E340C4C94040 1321 DC C'INT DI' DEVICE NAME
002582 C018 1322 DC X'C018' READ ID
002584 0000 1323 DC X'0000' MASK
002586 00A0 1324 DC X'00A0' DEVICE TYPE
002588 C9D5E340C4D64040 1325 DC C'INT DO' DEVICE NAME
002590 8008 1326 DC X'8008' READ ID
002592 0000 1327 DC X'0000' MASK
002594 00B0 1328 DC X'00B0' DEVICE TYPE
002596 E2C9D640C4C940C9 1329 DC C'SIO DI I' DEVICE NAME
002598 0000 1330 DC X'0000' READ ID
002600 0000 1331 DC X'0000' MASK
002602 C2C9D640C4C94040 1332 DC X'00B0' DEVICE TYPE
002604 8018 1333 DC C'SIO DI' DEVICE NAME
002606 8018 1334 DC X'8018' READ ID
002608 0000 1335 DC X'0000' MASK
002610 00B4 1336 DC X'00B4' DEVICE TYPE
002612 E2C9D640C4D64040 1337 DC C'SIO DO' DEVICE NAME
002614 8020 1338 DC X'8020' READ ID
002616 0000 1339 DC X'0000' MASK
002618 00A8 1340 DC X'00A8' DEVICE TYPE
002620 E2C9D640C1C94040 1341 DC C'SIO AI' DEVICE NAME
002622 8028 1342 DC X'8028' READ ID
002624 0000 1343 DC X'0000' MASK
002626 C2C9D640C1C940C1 1344 DC X'00A8' DEVICE TYPE
002628 8030 1345 DC C'SIO AI A' DEVICE NAME INSTRUMENTATION AMP
002630 0000 1346 DC X'8030' READ ID
002632 0000 1347 DC X'0000' MASK
002634 E2C9D640C1C940D9 1348 DC X'00A8' DEVICE TYPE
002636 8038 1349 DC C'SIO AI R' DEVICE NAME MPX RELAY
002638 0000 1350 DC X'8038' READ ID
002640 0000 1351 DC X'0000' MASK
002642 E2C9D640C1C940E2 1352 DC X'00A8' DEVICE TYPE
002644 8040 1353 DC C'SIO AI S' DEVICE NAME MPX SS
002646 0000 1354 DC X'8040' READ ID
002648 00A9 1355 DC X'00A9' MASK
002650 E2C9D640C1D64040 1356 DC X'00A9' DEVICE TYPE
002652 100E 1357 DC C'SIO AO' DEVICE NAME
1358 *
002600 100E 1359 DC X'100E' READ ID
002602 0000 1360 DC X'0000' MASK
002604 00E8 1361 DC X'00E8' DEVICE TYPE
002606 C1C3C3C140E2D340 1362 DC C'ACCA SI' DEVICE NAME
002608 1006 1363 DC X'1006' READ ID
002610 0000 1364 DC X'0000' MASK
002612 00F0 1365 DC X'00F0' DEVICE TYPE
002614 C2E2C3C140E2D340 1366 DC C'BSCA SI' DEVICE NAME
002616 1016 1367 DC X'1016' READ ID
002618 0020 1368 DC X'0020' MASK
002620 00F8 1369 DC X'00F8' DEVICE TYPE
002622 E2C4D3C340E2D340 1370 DC C'SDLI SL' DEVICE NAME
002624 200E 1371 DC X'200E' READ ID
002626 0700 1372 DC X'0700' MASK
002628 00E9 1373 DC X'00E9' DEVICE TYPE
002630 C1C3C3C140D4D340 1374 DC C'ACCA ML' DEVICE NAME
002632 2006 1375 DC X'2006' READ ID
002634 0700 1376 DC X'0700' MASK
002636 00F1 1377 DC X'00F1' DEVICE TYPE
002638 C2E2C3C140D4D340 1378 DC C'BSCA ML' DEVICE NAME
1379 *
002646 201E 1380 DC X'201E' READ ID
002648 0700 1381 DC X'0700' MASK
00264A 00E1 1382 DC X'00E1' DEVICE TYPE E0 & E1
00264C C3D6D440E2E8E240 1383 DC C'CON SYS' DEVICE NAME 4987
1384 *
002654 0030 1385 DC X'0030' READ ID
002656 0000 1386 DC X'0000' MASK
002658 003E 1387 DC X'003E' DEVICE TYPE
00265A E3C3E24040404040 1388 DC C'TCS' DEVICE NAME
1389 *
002662 FFFF 1389 DC X'FFFF' READ ID
002664 0000 1391 DC X'0000' MASK
002666 0000 1392 DC X'0000' DEVICE TYPE
002668 C4C5D3C5E3C5C440 1393 DC C'DELETED' DEVICE NAME
1394 *
002670 0000 1395 DC X'0000' END OF TABLE
1396 *****
1397 * DEVICES WITH NO READID
1398 DVTNA DC X'003D' DEVICE TYPE
1399 DC C'FLT PT' DEVICE NAME
1400 DC X'00A3' DEVICE TYPE
1401 DC C'OEM DPC' DEVICE NAME

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002686 00A4 1402 DC X'00A4' DEVICE TYPE
002688 E2C9D640C1E3C3C8 1403 DVTNE DC C'SIO ATCH' DEVICE NAME
002690 0000 1404 DC X'0000' END OF TABLE
002692 4040404040404040 1405 DVTUN DC C' BLANK NAME FOR UNKNOWN DEVICE
1406 *****
1408 *****
1409 *****
00269A 0000 1410 CDVRA DC A(*-*) RETURN ADDRESS
00269C 0000 1411 CDVRI DC X'0000' SAVE AREA FOR R1
1412 *****
1413 *****
1414 * PROGRAM START
1415 *****
00269E 6F0D 269A 1416 CDEVT MVW R7,CDVRA SAVE RETURN ADDRESS
0026A2 690D 269C 1417 MVW R1,CDVRI SAVE R1
1418 * R6 = DEVICE READ ID
1419 MVA DNTAB=PORTN,R2 ADDRESS OF DEVICE TYPE TABLE
0026AA 4224 24A2 1420 DET15 EQU *
0026AA 020E 1421 ABI FORTN,R2 INCREMENT TO NEXT ENTRY
0026AC 408F 0000 1422 CWI ZERO,(R2) END OF TABLE
0026B0 100F 1423 JE DET17 J YES TEST OTHERS WITH NO READID
1424 * R6 = PASSED DEVICE READ ID
0026B2 76B4 1425 MVW R6,R7 CK FOR A PASSED DEVICE TYPE
0026B4 6F4A 0002 1426 RBTW (R2,TWO),R7 J NO DEVICE TYPE PASSED
0026B8 CFA4 0000 1427 CWI (R2,ZERO),R7 ADDRESS OF DEVICE TYPE TABLE
0026BC 18F6 1428 JNE DET15
0026BE EQU *
0026BE 0F08 1430 MVBI EIGHT,R7 LENGTH OF DEVICE NAME FIELD
0026C0 46A4 0006 1431 MVA (R2,SIX),R6 START ADDRESS OF LABEL
0026C4 4124 2200 1432 MVA CDVT1,R1 WHERE TO PUT IT
0026C8 2E24 1433 MVFN (R6),(R1) MOVE THE DEVICE NAME
0026CA 6E48 0004 1434 MVW (R2,FOUR),R6 DEVICE TYPE INTO R6
0026CE 501C 1435 J DET21 J TO RETURN
1436 * TEST FOR OTHERS WITH NO READID
0026D0 1437 EQU *
0026D0 7524 1438 MVW R5,R1 CK FOR A PASSED DEVICE TYPE
0026D2 1012 1439 JZ DET20 J NO DEVICE TYPE PASSED
0026D4 4224 2668 1440 MVA DVTNA=TEN,R2 ADDRESS OF DEVICE TYPE TABLE
0026D8 EQU *
0026D8 020A 1441 DET18 EQU *
0026DA 408F 0000 1442 ABI TEN,R2 INCREMENT TO NEXT ENTRY
0026DA 100C 1443 CWI ZERO,(R2) END OF TABLE
1444 * J YES
1445 R5 = PASSED DEVICE TYPE
1446 CB (R2,ONE),R5 DOES ID MATCH
1447 JNE DET18 J NO
0026E0 C5A4 0001 1448 EQU *
0026E4 18F9 1449 MVBI EIGHT,R7 LENGTH OF DEVICE NAME FIELD
0026E6 0F08 1450 MVA (R2,TWO),R5 START ADDRESS OF LABEL
0026E8 4584 0002 1451 MVA CDVT1,R1 WHERE TO PUT IT
0026EC 4124 2200 1452 MVFN (R5),(R1) MOVE THE LABEL
0026F0 2D24 1453 MVW (R2,FOUR),R6 DEVICE TYPE INTO R6
0026F2 6E48 0004 1454 J DET21
0026F6 5008 1455 EQU *
0026F8 0F08 1456 MVBI EIGHT,R7 DEVICE UNKNOWN
0026FA 4524 2692 1457 MVA DVTUN,R5 LENGTH OF DEVICE NAME FIELD
0026FE 4124 2200 1458 MVA CDVT1,R1 START ADDRESS OF LABEL
002702 2D24 1459 MVFN (R5),(R1) WHERE TO PUT IT
002704 0000 1460 MVBI ZERO,R5 MOVE THE LABEL
002706 75C4 1461 EQU * RESET R5
002708 6908 269C 1462 DET21 EQU * RESET R6
00270C 6812 269A 1463 MVW CDVRI,R1 RESTORE R1
1464 B CDVRA* RETURN
1465 ***** END OF CDEVT PROCEDURE *****
1467 *****
1468 * PROCEDURE CACON MEMBER=CACON
1469 * ENTER ALTERNATE CONSOLE
1470 * 0000 = NO ALT CONSOLE
1471 * AATT = AA-DEVICE ADDRESS, TT=DEVICE TYPE
1472 *****
1473 CACON MVW R7,CACRA SAVE RETURN ADDRESS
1474 CACOP MVA CD20,R7
1475 SVC OUTIN PRINT 'ENTER ALT CONSOLE'
1476 * EXPECT ADDRESS/TYPE
1477 BAL CDCPT,R7 CK FOR DCP TERMINATE
1478 MVW CMD22,R7
1479 JNZ CAC05 B IF NO ALT CONSOLE
1480 * 0000 = CE CONSOLE
1481 MVA CMD30,R7
1482 SVC OUT PRINT 'PROGRAMMER OR CE CONSOLE'
1483 J CAC10
1484 * ALTERNATE CONSOLE ENTERED
1485 CAC05 MVB CMD22,CABAE ADDRESS
1486 MVB CMD23,CAETZ TYPE
1487 BAL CADTY,R7 CALL CHECK ADDRESS VS TYPE
1488 * R6 = 1=OK, 0=ERROR
1489 CHI 1,R6
1490 JE CAC10 J ENTERED OK
1491 * DEVICE ENTERED NOT FOUND
1492 MVA CMD25,R7
1493 SVC OUT PRINT 'NO DEVICE'
1494 * ALT CONSOLE ENTERED OK OR NONE ENTERED
1495 CAC10 MVW CMD22,CTABN* ALT CONSOLE ADD-TYPE INTO TABLE
1496 MVW CMD22,ALTER* ALT CONSOLE ADD-TYPE INTO DCP
1497 B CACRA RETURN
1498 *****
1499 CACRA DC A(*-*) RETURN ADDRESS
1500 *****
1501 * END OF CACON PROCEDURE
1502 *****
1504 *****
1505 * PROCEDURE CADTY MEMBER=CADTY
1506 * CHECK ALTERNATE CONSOLE ADDRESS VS TYPE
1507 * INPUT CAERA = RETURN ADDRESS
1508 * CAEAD = ADDRESS
1509 * CAETY = TYPE
1510 * OUTPUT R6 = 0=ERROR, 1=OK
1511 * R4 = READ ID RESULT
1512 *****
1513 * DATA DEFINITIONS
1514 CAERA DC X'0000' RETURN ADDRESS
1515 *****
1516 * PROGRAM START
1517 CADTY MVW R7,CAERA RETURN ADDRESS
00275C 6F0D 275A 1518 MVW R4,CTIDD DEVICE ADDRESS
002760 8828 21E0 235E

LOCTR OBJECT TEXT STMT SOURCE STATEMENT
002766 6F03 23A4 1519 BAL CYRID,R7 CALL READ ID
1520 * ID RETURNED IN CTIID
1521 * COMPARE READ ID VS DEVICE TYPE
00276A 6C08 2362 1522 MVW CTIID,R4 R4 = READ ID FOR RETURN
00276E 74C4 1523 MVW R4,R6 R6 = ID FOR BAL
002770 3582 1524 SRL 16,R5 ZERO R5
002772 6F03 269E 1525 BAL CDEVT,R7 CALL FIND DEVICE TYPE
1526 * TYPE RETURNED IN R6
1527 * CHECK TYPE
002776 CE24 21E2 1528 CW CAETY,R6
00277A 1812 1529 JNE CAD20
00277C 6E24 21C0 1530 CB CDT0,R6 TTY
002780 100C 1531 JE CDT10 CRT
002782 6E24 21C1 1532 CB CDT4,R6
002786 1009 1533 JE CAD10 DISPLAY
002788 C624 21C2 1534 CB CDT45,R6
00278C 1006 1535 JE CAD10 PRINTER
002790 C624 21C3 1536 CB CDT6,R6
002792 1003 1537 JE CAD10 4973 PRINTER
002794 C624 21C4 1538 CB CDT68,R6 B IF NOT VALID TYPE
002798 1803 1539 JNE CAD20
1540 * VALID ADD VS TYPE
00279A 4624 0001 1541 CAD10 MVWI R4, R4
00279E 5002 1542 J CAD30 INVALID ADD VS TYPE
0027A0 4624 0000 1543 CAD20 MVWI 0,R6
0027A4 6812 275A 1544 *
1545 CAD30 B CAERA* RETURN
1546 *****
1547 * END OF CADTY PROCEDURE
1548 *****
1549 *****
1550 *****
1551 * PROCEDURE STYPE
1552 * FIND SYSTEM TYPE
1553 * DIAG X'04' INSTRUCTION RETURNS R0 = X'0002' FOR BELLE 4952
1554 * X'0003' FOR ELBERTA 4953
1555 * X'0005' FOR CLING 4955
1556 * RETURN R1=22 FOR BELLE 4952
1557 * R1=23 FOR ELBERTA 4953
1558 * R1=25 FOR CLING 4955
1559 * RETURN TO NEXT INSTRUCTION
1560 *****
1561 STYPE DIAG X'04' DIAGNOSE SYSTEM TYPE
1562 CBI X'02',R0
1563 JE STYP5
1564 CBI X'03',R0
1565 JE STYP7
1566 * 4955 = '0005'
1567 MVBI X'25',R1
1568 J STYP9
1569 * 4952 = '0002'
1570 STYP5 MVBI X'22',R1
1571 J STYP9
1572 * 4953 = '0003'
1573 STYP7 MVBI X'23',R1
1574 STYP9 B (R7) RETURN TO CALLER
1575 ***** END OF SYSTEM TYPE PROCEDURE *****
1576 *
1577 *
1578 *
1579 *****
1580 * PROCEDURE CDCPT
1581 * CHECK FOR DCP TERMINATE BIT ON - BIT 0 OPTION WORD 1
1582 *****
1583 CDCPR DC X'0000' RETURN ADDRESS
1584 *****
1585 CDCPT MVW R7,CDCPR SAVE RETURN ADDRESS
1586 MVW AOPTN1,R7 @ OF OPTION WORD 1 IN BASIC
1587 TBT (R7,0) BIT 0 = DCP TERMINATE PROGRAM
1588 JZ CDCPU GO
1589 *-----
1590 *----- SVC TERM TERMINATE PROGRAM
1591 *-----
1592 CDCPU B CDCPR* RETURN
1593 *****
1594 * END CHECK FOR DCP TERMINATE
1595 *****
1596 *****
1597 *****
1598 * PROCEDURE WANDT
1599 * PURPOSE - A) WRITE CONFIGURATION TABLE TO DISK AND TERMINATE.
1600 * B) TERMINATE.
1601 *****
1602 WANDT MVA CTRL5,R7
1603 CTERM SVC TERM WRITE DISK
1604 CTERM SVC TERM TERMINATE PROGRAM
1605 *****
1606 *****
1607 * END OF COMMON SUBROUTINES
1608 *****
1609 *****
1610 COPY DNSUB2
1611 *****
1612 * ** TITLE **
1613 * *CONFIGURATION COMMON SUBROUTINES*
1614 *****
1615 *
1616 * CONTROL BLOCK OUTPUT
1617 ALIGN WORD
1618 DC X'00C0'
1619 CNM30 DC A(CNM31)
1620 DC A(-1)
1621 * OUTPUT
1622 DC X'384B'
1623 CNM31 DC C'CHAIN TOO LONG'
1624 DC X'00'
1625 *
1626 *****
1627 * END OF CDATA
1628 *****
1629 ALIGN WORD
1630 *****
1631 *****
1632 *
1633 *
1634 * BEGIN COMMON SUBROUTINES
1635 *
1636 *

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1637 *****
1639 *****
1640 * PROCEDURE CSORT
1641 * SORT CONFIGURATION TABLE BY ASCENDING DEVICE TYPE & ADDRESS
1642 * B ENTRIES MAY BE CHAINED TOGETHER
1643 * LAST ENTRY OF CHAIN HAS CHAIN BIT OFF
1644 *****
1645 *
1646 *
1647 * DATA DEFINITION
1648 CSORA DC A(*-*) RETURN ADDRESS
1649 PBOTT DC X'0000' START OF LAST ENTRY FOR SORT PROGRAM
1650 CNTA DC X'0000' # ENTRIES IN HOLD AREA
1651 CNTB DC X'0000' # BYTES IN HOLD AREA
1652 CNT2 DC X'0000' # ENTRIES MOVED UP
1653 CNT2 DC X'0000' # BYTES MOVED UP
1654 CNSAT DC X'0000' FLAG SORT BY 0=TYPE, 1=ADDRESS
1655 * HOLD AREA FOR SORT
1656 CHOLD DC XL16'0' 16 BYTES
1657 *****
1658 * PROGRAM START
1659 CSORT MVB R7,CSORA SAVE RETURN ADDRESS
1660 MVB CTAB,R1 R1 = TABLE ADDRESS
1661 MVB (R1,2),R2 R2 = # ENTRIES IN TABLE
1662 BZ CS15 E IF NO ENTRIES IN TABLE TO END SORT
1663 MVB CTLEN,R6 TABLE LENGTH
1664 AW R1,R6 R6 = END CONFIG TABLE + 1
1665 AW CTW16,R1 R1 = ADDRESS OF ENTRY 1
1666 CS00 MVB (R1,CUDF),R2 FLAG BYTE
1667 NWI X'00CE',R2 TURN OFF END SECTOR & TABLE BIT
1668 MVB R2,(R1,CUDF) REPLACE FLAG BYTE
1669 AW CTW16,R1 R1 = ADDRESS OF NEXT ENTRY
1670 R6,R1
1671 BLT CS00 B IF NOT THROUGH TABLE
1672 *
1673 * ALL CONTROL FLAG BITS HAVE BEEN REMOVED
1674 *****
1675 * DETERMINE # ENTRIES IN TABLE
1676 MVB CTAB,R3 INITIALIZE TO MAX # TABLE ENTRIES
1677 MVB CTAB,R1 ADDRESS OF LAST ENTRY
1678 CSN01 CWI X'0000',(R1) CHECK FOR BLANK ENTRY
1679 BNE CSN05 LAST USED ENTRY FOUND
1680 SWI 1,R3 DECREMENT # ENTRIES IN TABLE
1681 SWI 16,R1 DECREMENT TABLE ADDRESS
1682 CWI 0,R3 SEE IF ALL ENTRIES CHECKED
1683 BGT CSN01 CONTINUE TO LOOK
1684 *
1685 * NO ENTRIES IN TABLE
1686 *
1687 * LAST ENTRY FOUND
1688 CSN05 MVB R3,CTAB* SAVE # ENTRIES IN TABLE
1689 *****
1690 * DELETE ENTRIES WITH ADD-TYPE-FLAGS = FF-PF-YX-FF
1691 CTAB,R3 CONFIG TABLE ADDRESS
1692 MVB (R1,2),R2 R2 = # ENTRIES IN TABLE
1693 AW 16,R1 ADDRESS FIRST REAL TABLE ENTRY
1694 CNE42 CWI X'FFFF',(R1) R1 = ADDRESS OF TABLE ENTRY
1695 JNE CNE44
1696 *
1697 * FOUND A FFFFXFF ENTRY
1698 CXDA1 EQU *
1699 MVB CTAB,R3 R1 = ADDRESS OF ENTRY TO DELETE
1700 AW 16,R1,R2 ADDRESS OF LAST TABLE ENTRY
1701 AWI 16,R3,R2 ADDRESS + 16
1702 CW R3,R2 R3 = ADDRESS 1 PAST END OF TABLE
1703 JGE CSX02 JUMP IF ONLY DELETE LAST TABLE ENTRY
1704 CSX01 MVB (R2),R1 MOVE TABLE ENTRIES UP 16 BYTES
1705 AWI 2,R1 ADD
1706 AWI 2,R2 ADD
1707 CW R3,R2 COMPARE TO END ADDRESS OF TABLE
1708 JLTL CSX01
1709 CSX02 MVB 0,(R1) ZEPO LAST TABLE ENTRY
1710 AWI 2,R1
1711 CW R3,R1
1712 JLTL CSX02
1713 *
1714 * DECREMENT NUMBER OF ENTRIES USED
1715 MVB CTAB,R2 CONFIGURATION TABLE ADDRESS
1716 MVB (R2),R1 NUMBER OF ENTRIES USED
1717 SWI 1,R1 DECREMENT
1718 MVB R1,(R2) REPLACE DECREMENTED NUMBER
1719 J CNE40 GO CHECK FOR MORE ENTRIES
1720 *
1721 * NOT A FFFFXFF ENTRY
1722 CNE44 AWI 16,R1 INCREMENT ADDRESS
1723 CW CTAB,R1
1724 JLE CNE42
1725 *
1726 * NO MORE FFFFXFF ENTRIES IN TABLE NOW
1727 *****
1728 * BEGIN SORT
1729 CSAA MVTI 1,CNSAT SET SORT BY ADDRESS
1730 * CONTINUE SORT
1731 CSAB MVB CTAB,R1 R1 = TABLE ADDRESS
1732 MVB (R1,2),R2 # ENTRIES IN TABLE
1733 MW CTW16,R2
1734 AW R1,R2 R2 = ADDRESS OF LAST ENTRY
1735 MVB R2,PBOTT ADDRESS OF LAST TABLE ENTRY
1736 * START NEXT PASS
1737 CS01 MVB CTAB,R1 ADDRESS OF CONFIGURATION TABLE
1738 AW CTW16,R1 R1 = ADDRESS OF 1ST TABLE ENTRY
1739 * CONTINUE SORT PASS
1740 CS02 MVTI 1,CNRA R3 = ADDRESS TABLE ENTRY IN CHAIN
1741 MVTI 16,CNT1
1742 *
1743 * COMPARE AND SEE IF NEED TO SWAP
1744 * (R1,17) IS ADDRESS OF NEXT ENTRY
1745 * CK SORT TYPE
1746 * GO SORT BY ADDRESS
1747 *
1748 *
1749 * SORT BY DEVICE TYPE
1750 * (R1,1), (R1,17)
1751 *
1752 *
1753 * NEED TO SWAP
1754 * NO SWAP
1755 *
1756 * SORT BY DEVICE ADDRESS
1757 * (R1,1), (R1,16)
1758 *
1759 *
1760 * NEED TO SWAP
1761 * NO SWAP

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1752 * NO NEED TO SWAP - IN PROPER SEQUENCE NOW
1753 CS04 AW CNT1,R1 POINT TO NEXT ENTRY
1754 CW PBOTT,R1
1755 BLT CS02,R1 B IF MORE ENTRIES TO CHECK THIS PASS
1756 B CS14 B END OF SORT PASS
1757 *****
1758 * NEED TO SWAP
1759 * HOLD ENTRIES TO MOVE DOWN
1760 CS05 MVA CHOLD,R2 R2 = ADDRESS OF HOLD AREA
1761 MVB R1,R5 R5 = START ADDRESS
1762 MVTI 0,R6 R6 = COUNT
1763 CS06 MVB (R5),R2 MOVE TO HOLD
1764 MVB 2,R5
1765 AWI 2,R2
1766 AWI 2,R6
1767 CW CNT1,R6
1768 BLT CS06 B IF MORE DATA TO MOVE TO HOLD
1769 *
1770 * ALL DATA MOVED TO HOLD
1771 * MOVE UP DATA OF NEXT ENTRY (SERIES)
1772 MVTI 1,CNTB
1773 MVTI 16,CNT2
1774 MVB R1,R3
1775 AW CNT1,R3 ADDRESS NEXT ENTRY
1776 CW PBOTT,R3 CK FOR END OF TABLE
1777 BGT CS14 TABLE END - SORT PASS FINISHED
1778 MVB R3,R5 R5 = ADDRESS OF NEXT ENTRY SERIES
1779 CS09 MVB CNT2,R7 R7 = # BYTES TO MOVE UP
1780 MVB R1,R2 R2 = ADDRESS TO PLACE DATA
1781 MVTI 0,R6 R6 = COUNT
1782 CS10 MVB (R5),R2 MOVE WORD UP
1783 AWI 2,R5
1784 AWI 2,R2
1785 AWI 2,R6
1786 CW R7,R6
1787 BLT CS10 B IF R6 < R7
1788 *
1789 * FINISHED MOVING UP ENTRIES
1790 * REPLACE HOLD ENTRY(S)
1791 MVB CNT1,R7 R7 = # BYTES TO MOVE FROM HOLD
1792 MVB R1,R2
1793 AW CNT2,R2 R2 = ADDRESS TO PLACE DATA
1794 MVA CHOLD,R5 R5 = START ADDRESS
1795 MVTI 0,R6 R6 = COUNT
1796 CS12 MVB (R5),R2 MOVE FROM HOLD
1797 AWI 2,R5
1798 AWI 2,R2
1799 AWI 2,R6
1800 CW R7,R6
1801 BLT CS12 B IF R6 < R7
1802 *
1803 * FINISHED MOVING TABLE ENTRY UP
1804 AW CNT2,R1 POINT TO NEXT ENTRY
1805 CW PBOTT,R1
1806 BLT CS02 B IF R1 < END OF SORT PASS
1807 *****
1808 * END OF SORT PASS
1809 *
1810 * NEXT SORT PASS 1 LESS ENTRY
1811 * B IF PBOTT >= 2ND ENTRY
1812 CS14 SWI 16,PBOTT
1813 CWI 16,PBOTT
1814 BGE CS01
1815 *
1816 * FINISHED WITH SORT PASSES
1817 *
1818 * FINISHED SORT BY TYPE
1819 * FINISHED SORT BY ADDRESS - NOW GO SORT BY TYPE
1820 * SET SORT BY TYPE
1821 * GO SORT BY TYPE
1822 CS15 EQU *
1823 *
1824 * FINISHED WITH SORT
1825 *
1826 * INSERT LAST USED ENTRY IN TABLE FLAG
1827 * ADDRESS OF TABLE
1828 * # ENTRIES IN TABLE
1829 * DELTA TO LAST ENTRY
1830 * LAST ENTRY ADDRESS
1831 MVB (R2,2),R3
1832 OWI X'0020',R3 SET LAST USED ENTRY BIT
1833 MVB R3,(R2,2) REPLACE FLAG BYTE
1834 *
1835 * INSERT LAST ENTRY IN TABLE FLAG
1836 * ADDRESS LAST ENTRY CONFIG TABLE
1837 * CONTROL FLAG BYTE
1838 * SET LAST ENTRY IN TABLE BIT
1839 * REPLACE FLAG BYTE
1840 *
1841 * INSERT LAST ENTRY IN SECTOR FLAGS
1842 * 14 ENTRIES / SECTOR X 18 SECTORS = 252 ENTRIES
1843 * +4 ENTRIES = 256 ENTRIES TOTAL & 19 SECTORS.
1844 MVB CTAB,R1 R1 = ADDRESS OF TABLE
1845 MVB CTLEN,R6 TABLE LENGTH
1846 AW R1,R6 R6 = END ADDRESS OF TABLE + 1
1847 MVB CTW13,R2
1848 MW CTW16,R2
1849 AW R1,R2
1850 MVB (R2,CUDF),R3 R2 = START LAST ENTRY 1ST SECTOR
1851 OWI X'0010',R3 SET LAST ENTRY IN SECTOR BIT
1852 MVB R3,(R2,CUDF) REPLACE CONTROL FLAG BYTE
1853 MW CTW16,R3 DELTA TO END NEXT SECTOR
1854 AW R3,R2 R2 = START LAST ENTRY NEXT SECTOR
1855 CW R6,R2
1856 BLE CS16
1857 BAL CHAIN,R7 B IF STILL INSIDE TABLE
1858 SCVS R7 CK CHAIN LENGTHS
1859 BAL CSOR,R7 INSERT TCS DEVICE ADD IN TCS ENTRY
1860 * RETURN TO CALLING PROGRAM
1861 *****
1862 * END OF SORT CONFIGURATION TABLE PROGRAM
1863 *****
1864 * PROCEDURE CHAIN MEMBER-CHAIN
1865 * CHECK CONFIGURATION TABLE FOR CHAINS LONGER THAN 8 ENTRIES
1866 * CALL CHAIN
1867 * PRINTS ERROR & RESTARTS PAST CONFIG TABLE READ
1868 *****
1869 CHAIN MVB R7,CHARA SAVE RETURN ADDRESS
1870 MVB CTAB,R1 R1 = ADDRESS 1ST ENTRY CONFIG TABLE
1871 MVTI 0,CHLNG INITIALIZE CHAIN LENGTH COUNT
1872 CHA01 MVB (R1,CUDF),R2 FLAG BYTE
1873 NWI X'0040',R2 TEST CHAIN BIT

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002A44 1008 1867 JZ CHA02 CHAIN BIT FOR THIS ENTRY NOT SET
1868 * CHAIN BIT SET
002A46 4029 2A82 0001 1869 AWI 1,CHLNG INCREMENT CHAIN LENGTH
002A4C 402F 2A82 0008 1870 CWI 8,CHLNG
002A52 1410 1871 JLT CHA08 CHAIN LENGTH OK
002A54 5008 1872 J CHA04 ERROR - CHAIN LENGTH TOO LONG
1873 * CHAIN BIT NOT SET
002A56 402F 2A82 0000 1874 CHA02 CWI 0,CHLNG
002A5C 100B 1875 JE CHA08
1876 * THIS IS LAST ENTRY IN A CHAIN
002A5E 402F 2A82 0007 1877 CWI 7,CHLNG
002A64 1504 1878 JLE CHA06 J IF CHAIN LENGTH OK
1879 * ERROR - CHAIN LENGTH TOO LONG
002A66 4724 27DE 1880 CHA04 MVA CNM30,R7
002A6A 6000 1881 OUT ERROR 'CONFIG CHAIN TOO LONG' 384B
002A6C 5008 1882 J CHA09
1883 * *****
1884 * CHAIN LENGTH OK
002A6E 4020 2A82 0000 1885 CHA06 MVWI 0,CHLNG RESET LENGTH COUNTER
1886 * CK NEXT ENTRY
002A74 7921 0010 1887 CHA08 AWI 16,R1
002A78 C924 2224 1888 CW CTABF,R1
002A7C 15DF 1889 JLE CHA08 J IF NOT AT END OF TABLE
1890 * END OF TABLE
002A7E 6812 2A84 1891 CHA09 B CHARA* RETURN
1892 * *****
002A82 0000 1893 CHLNG DC X'0000' CHAIN LENGTH
002A84 0000 1894 CHARA DC A(*-*) RETURN ADDRESS
1895 * *****
1896 * END OF CHAIN PROCEDURE
1897 * *****
1899 * *****
1900 * PROCEDURE STCS
1901 * INSERT A TCS DEVICE ADDRESS IN TCS ENTRY AFTER SORT
1902 * INDICATE IF DEVICE IS A CYCLE STEAL DEVICE
1903 * *****
002A86 6F0D 2A8E 1904 STCS MVW R7,STCRA SAVE RETURN ADDRESS
1905 * MVWI 0,STCDA INITIALIZE
1906 * MVW CTABE,R1 R1 = @ 1ST ENTRY OF CONFIG TABLE
1907 * MVWI 1,R2 R2 = PRESENT ENTRY #
1908 * MVB CTABU*,R3 R3 = # ENTRIES IN TABLE
1909 * SLL 8,R3
1910 * SRL 8,R3
1911 *TC01 CB CDT3E,(R1,1) CK FOR TCS ENTRY
1912 * JE STC02 J TCS ENTRY FOUND
1913 * NOT A TCS ENTRY
1914 *TCA1 AWI 16,R1 INC TO NEXT ENTRY @
1915 * AWI 1,R2 INC TO NEXT ENTRY #
1916 * CW R3,R2
1917 * JLE STC01 J NOT END OF TABLE
1918 * J STC08 J END OF TABLE - NO TCS ENTRY FOUND
1919 * FOUND A TCS ENTRY
1920 *TC02 TBT (R1,22) TEST TCS BIT
1921 * JON STCA1 J NOT REALLY A TCS FOR THIS PROCESSOR
1922 * MVW R1,STCEA SAVE TCS ENTRY ADDRESS
1923 * LOOK FOR A TCS DEVICE
1924 * MVW CTABE,R1 R1 = @ 1ST ENTRY OF CONFIG TABLE
1925 * MVWI 1,R2 R2 = PRESENT ENTRY #
1926 * R3 = # ENTRIES IN TABLE
1927 *TC03 TBT (R1,22) TEST TCS BIT
1928 * JON STC05 J IF A TCS DEVICE
1929 * NOT A TCS DEVICE
1930 *TC04 AWI 16,R1 INC TO NEXT ENTRY @
1931 * AWI 1,R2 INC TO NEXT ENTRY #
1932 * CW R3,R2
1933 * JLE STC03 J NOT END OF TABLE
1934 * END OF TABLE REACHED
1935 * MVW STCEA,R1 R1 = TCS ENTRY @
1936 * TBTR (R1,63) PESET CYCLE STEAL DEVICE BIT-TCS ENT
1937 * J STC06 J
1938 * *****
1939 * FOUND A TCS DEVICE
1940 *TC05 MVW R1,STCDA SAVE TCS DEVICE ENTRY ADDRESS
1941 * AWI 15,R1,R4 R4 = LAST BYTE OF ENTRY
1942 * TBT (R4,6) TEST CYCLE STEAL BIT IN READ ID
1943 * JOFF STC04 J NOT A CS DEVICE. CK NEXT ENTRY
1944 * FOUND A CYCLE STEAL TCS DEVICE. ENTER IN TCS ENTRY
1945 * MVW STCEA,R1 R1 = TCS ENTRY @
1946 * TBTS (R1,63) SET CYCLE STEAL DEVICE BIT IN TCS ENT
1947 *TC06 AWI 6,R1,R2 R2 = TCS ENTRY @ FOR TCS DEVICE @
1948 * MVW STCDA,R7 R7 = @ TCS DEVICE ENTRY
1949 * JZ STC07 J NO TCS DEVICES FOUND
1950 * MVB (R7),(R2) SET TCS DEVICE @ IN TCS ENTRY
1951 * J STC08
1952 *TC07 MVB 7,(R2) RESET TCS DEVICE @ TO 0 IN TCS ENTRY
1953 * STC08 B STCRA* RETURN
1954 * *****
002A8A 6812 2A8E 1955 STCRA DC A(*-*) RETURN ADDRESS
002A8E 0000 1956 *TCEA DC X'0000' TCS ENTRY ADDRESS
1957 *TCDA DC X'0000' TCS DEVICE ENTRY ADDRESS
1958 * *****
1959 * END OF STCS PROCEDURE
1960 * *****
1962 * *****
1963 * END OF COMMON SUBROUTINES
1964 * *****
1965 * COPY DNSUB3
1966 * *****
1967 * ** TITLE **
1968 * 'CONFIGURATION COMMON SUBROUTINES - DNSUB3 *
1969 * *****
1971 * *****
1972 * DATA
1973 * *****
1974 * *****
1975 * CONTROL BLOCK OUTPUT
1976 * ALIGN WORD
002A90 0080 1977 DC X'0080'
002A92 2A98 1978 CTM8 DC A(CTM8A)
002A94 FFFF 1979 DC A(-1)
1980 * OUTPUT MESSAGE
002A96 384A 1981 DC X'384A'
002A98 E3C1C2D3C540C6E4D 1982 CTM8A DC C'TABLE FULL'
002AA2 00 1983 DC X'00'

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1984 * *****
1985 * *****
1986 * END OF DATA
1987 * *****
002AA3 00 1988 * ALIGN WORD
1989 * *****
1990 * *****
1991 * *****
1992 * *****
1993 * *****
1994 * *****
1995 * *****
1996 * *****
1997 * *****
1998 * *****
1999 * *****
2000 * *****
2001 * *****
002AA4 7724 2002 CLEAR MVW R7,R1 SAVE RETURN ADDRESS
002AA6 3281 2003 SLL 16,R2 R2 = ZERO = WHAT TO MOVE
002AA8 4324 2258 2004 MVA CTE04,R3 R3 = WHERE TO PUT IT
002AAC 6F08 2212 2005 MVW CTLEL,R7 R7 = HOW MANY BYTES
002AB0 2A6C 2006 PFN R2,(R3) ZERO THE BUFFER
002AB2 6822 0000 2007 B (R1) RETURN
2008 * *****
2009 * END CLEAR PROCEDURE
2010 * *****
2012 * *****
2013 * *****
2014 * *****
2015 * *****
2016 * *****
2017 * *****
2018 * *****
002AB6 77C4 2019 NEXTE MVW R7,R6 SAVE RETURN ADDRESS
002AB8 C130 2218 2020 MVB CTABU*,R1 R1 = # ENTRIES USED
002ABC 3141 2021 SLL 8,R1
002ABE 3142 2022 SRL 8,R1 R1 = # ENTRIES USED & NO SIGN BITS
002AC0 C924 222E 2023 CW CTMNE,R1 TEST FOR ROOM IN TABLE
002AC4 1404 2024 JLT NEXT2 J TABLE IS NOT FULL
2025 * TABLE IS FULL
002AC6 4724 2A92 2026 MVA CTM8,R7
002ACA 6000 2027 OUT PRINT 'CONFIG TABLE FULL'
002ACC 500D 2028 J NEXT4
2029 * NEXT4
002ACE 7921 0001 2030 NEXT2 AWI 1,R1 ROOM FOR NEW ENTRY
002AD2 C138 2218 2031 MVB R1,CTABU* INCREMENT # OF ENTRIES
2032 MW CTLEL,R1 STORE # ENTRIES
2033 AW CTABA,R1 X 16 = DELTA INTO TABLE
002ADE 4224 2258 2034 NVA CTE04,R2 R1 = START ADDRESS OF NEW ENTRY = TO
002AE2 6F08 2212 2035 MVW CTLEL,R2 R2 = FROM LOCATION
002AE6 2A24 2036 MVFN (R2),(R1) R7 = # BYTES TO MOVE
002AE8 68C2 0000 2037 NEXT4 B MOVE NEW ENTRY INTO CONFIG TABLE
2038 * *****
2039 * *****
2040 * *****
2042 * *****
2043 * *****
2044 * *****
2046 * *****
2048 * *****
2049 * *****
2050 * *****
2051 * *****
2052 * *****

CROSS-REFERENCE LISTING

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DECLARED	NAME	ATTRIBUTES AND REFERENCES
859	ALTER	ADDRESS. HEX LOCATION(000021BA) IN CSECT(038F5) LENGTH(2)
861	AOPTN1	ADDRESS. HEX LOCATION(000021BC) IN CSECT(038F5) LENGTH(2)
1473	CACON	ADDRESS. HEX LOCATION(00002710) IN CSECT(038F5) LENGTH(4)
1499	CACRA	ADDRESS. HEX LOCATION(00002758) IN CSECT(038F5) LENGTH(2)
1485	CAC05	ADDRESS. HEX LOCATION(0000272C) IN CSECT(038F5) LENGTH(6)
1495	CAC10	ADDRESS. HEX LOCATION(00002748) IN CSECT(038F5) LENGTH(6)
1517	CADTY	ADDRESS. HEX LOCATION(0000275C) IN CSECT(038F5) LENGTH(4)
1540	CAD10	ADDRESS. HEX LOCATION(0000279A) IN CSECT(038F5) LENGTH(4)
1543	CAD20	ADDRESS. HEX LOCATION(000027A0) IN CSECT(038F5) LENGTH(4)
1545	CAD30	ADDRESS. HEX LOCATION(000027A4) IN CSECT(038F5) LENGTH(4)
898	CAEAD	ADDRESS. HEX LOCATION(000021E0) IN CSECT(038F5) LENGTH(1)
899	CAEAE	ADDRESS. HEX LOCATION(000021E1) IN CSECT(038F5) LENGTH(1)
1514	CAERA	ADDRESS. HEX LOCATION(0000275A) IN CSECT(038F5) LENGTH(2)
900	CAETY	ADDRESS. HEX LOCATION(000021E2) IN CSECT(038F5) LENGTH(1)
901	CAETZ	ADDRESS. HEX LOCATION(000021E3) IN CSECT(038F5) LENGTH(1)
54	CALBR	ADDRESS. HEX LOCATION(00001D7E) IN CSECT(038F5) LENGTH(1)
914	CBPA3	ADDRESS. HEX LOCATION(000021F4) IN CSECT(038F5) LENGTH(2)
915	CBPA4	ADDRESS. HEX LOCATION(000021F6) IN CSECT(038F5) LENGTH(2)
916	CCERR	ADDRESS. HEX LOCATION(000021F8) IN CSECT(038F5) LENGTH(2)
1583	CDCPR	ADDRESS. HEX LOCATION(000027C0) IN CSECT(038F5) LENGTH(2)
1585	CDCPT	ADDRESS. HEX LOCATION(000027C2) IN CSECT(038F5) LENGTH(4)
1592	CDCPU	ADDRESS. HEX LOCATION(000027D0) IN CSECT(038F5) LENGTH(4)
1416	CDEVT	ADDRESS. HEX LOCATION(0000269E) IN CSECT(038F5) LENGTH(4)
873	CDTA3	ADDRESS. HEX LOCATION(000021C6) IN CSECT(038F5) LENGTH(1)
874	CDTA4	ADDRESS. HEX LOCATION(000021C7) IN CSECT(038F5) LENGTH(1)
879	CDTE0	ADDRESS. HEX LOCATION(000021CC) IN CSECT(038F5) LENGTH(1)
865	CDT3D	ADDRESS. HEX LOCATION(000021BE) IN CSECT(038F5) LENGTH(1)
867	CDT40	ADDRESS. HEX LOCATION(000021C0) IN CSECT(038F5) LENGTH(1)
868	CDT44	ADDRESS. HEX LOCATION(000021C1) IN CSECT(038F5) LENGTH(1)
869	CDT45	ADDRESS. HEX LOCATION(000021C2) IN CSECT(038F5) LENGTH(1)
870	CDT64	ADDRESS. HEX LOCATION(000021C3) IN CSECT(038F5) LENGTH(1)
871	CDT68	ADDRESS. HEX LOCATION(000021C4) IN CSECT(038F5) LENGTH(1)
1410	CDVRA	ADDRESS. HEX LOCATION(0000269A) IN CSECT(038F5) LENGTH(2)
1411	CDVR1	ADDRESS. HEX LOCATION(0000269C) IN CSECT(038F5) LENGTH(2)
923	CDVT1	ADDRESS. HEX LOCATION(00002200) IN CSECT(038F5) LENGTH(4)
917	CEDN1	ADDRESS. HEX LOCATION(000021FA) IN CSECT(038F5) LENGTH(1)
1862	CHAIN	ADDRESS. HEX LOCATION(00002A2E) IN CSECT(038F5) LENGTH(4)
1894	CHARA	ADDRESS. HEX LOCATION(00002A84) IN CSECT(038F5) LENGTH(2)
1865	CHA01	ADDRESS. HEX LOCATION(00002A3C) IN CSECT(038F5) LENGTH(4)
1874	CHA02	ADDRESS. HEX LOCATION(00002A56) IN CSECT(038F5) LENGTH(6)
1880	CHA04	ADDRESS. HEX LOCATION(00002A66) IN CSECT(038F5) LENGTH(4)
1885	CHA06	ADDRESS. HEX LOCATION(00002A6E) IN CSECT(038F5) LENGTH(6)
1887	CHA08	ADDRESS. HEX LOCATION(00002A74) IN CSECT(038F5) LENGTH(4)
1891	CHA09	ADDRESS. HEX LOCATION(00002A7E) IN CSECT(038F5) LENGTH(4)
1893	CHLNG	ADDRESS. HEX LOCATION(00002A82) IN CSECT(038F5) LENGTH(2)
1656	CHOLD	ADDRESS. HEX LOCATION(00002802) IN CSECT(038F5) LENGTH(16)
147	CIM07	ADDRESS. HEX LOCATION(00001E2E) IN CSECT(038F5) LENGTH(2)
153	CIM09	ADDRESS. HEX LOCATION(00001E38) IN CSECT(038F5) LENGTH(2)
154	CIM10	ADDRESS. HEX LOCATION(00001E3A) IN CSECT(038F5) LENGTH(48)
166	CIM30	ADDRESS. HEX LOCATION(00001E74) IN CSECT(038F5) LENGTH(2)
170	CIM31	ADDRESS. HEX LOCATION(00001E7A) IN CSECT(038F5) LENGTH(6)
171	CIM32	ADDRESS. HEX LOCATION(00001E80) IN CSECT(038F5) LENGTH(6)
913	CINCF	ADDRESS. HEX LOCATION(000021F2) IN CSECT(038F5) LENGTH(2)
2002	CLEAR	ADDRESS. HEX LOCATION(00002AA4) IN CSECT(038F5) LENGTH(2)
55	CLING	ADDRESS. HEX LOCATION(00001D7F) IN CSECT(038F5) LENGTH(1)
177	CMD01	ADDRESS. HEX LOCATION(00001E8A) IN CSECT(038F5) LENGTH(2)

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DECLARED	NAME	ATTRIBUTES AND REFERENCES
181	CMD02	ADDRESS. HEX LOCATION(00001E90) IN CSECT(038F5) LENGTH(6)
185	CMD10	ADDRESS. HEX LOCATION(00001E98) IN CSECT(038F5) LENGTH(2)
1004	CMD20	ADDRESS. HEX LOCATION(0000227C) IN CSECT(038F5) LENGTH(2)
1010	CMD21	ADDRESS. HEX LOCATION(00002286) IN CSECT(038F5) LENGTH(41)
1014	CMD22	ADDRESS. HEX LOCATION(000022B0) IN CSECT(038F5) LENGTH(1)
1015	CMD23	ADDRESS. HEX LOCATION(000022B1) IN CSECT(038F5) LENGTH(1)
1021	CMD25	ADDRESS. HEX LOCATION(000022B6) IN CSECT(038F5) LENGTH(2)
1025	CMD26	ADDRESS. HEX LOCATION(000022BC) IN CSECT(038F5) LENGTH(9)
1031	CMD30	ADDRESS. HEX LOCATION(000022C8) IN CSECT(038F5) LENGTH(2)
1035	CMD31	ADDRESS. HEX LOCATION(000022CE) IN CSECT(038F5) LENGTH(24)
192	CMD70	ADDRESS. HEX LOCATION(00001EA0) IN CSECT(038F5) LENGTH(2)
198	CMD71	ADDRESS. HEX LOCATION(00001EAA) IN CSECT(038F5) LENGTH(16)
203	CMD73	ADDRESS. HEX LOCATION(00001EBC) IN CSECT(038F5) LENGTH(1)
407	CMEHD	ADDRESS. HEX LOCATION(0000209C) IN CSECT(038F5) LENGTH(1)
1690	CNE40	ADDRESS. HEX LOCATION(00002866) IN CSECT(038F5) LENGTH(4)
1693	CNE42	ADDRESS. HEX LOCATION(00002872) IN CSECT(038F5) LENGTH(4)
1720	CNE44	ADDRESS. HEX LOCATION(000028B8) IN CSECT(038F5) LENGTH(4)
1619	CNM30	ADDRESS. HEX LOCATION(000027DE) IN CSECT(038F5) LENGTH(2)
1623	CNM31	ADDRESS. HEX LOCATION(000027E4) IN CSECT(038F5) LENGTH(14)
1654	CNSAT	ADDRESS. HEX LOCATION(00002800) IN CSECT(038F5) LENGTH(2)
1650	CNTA	ADDRESS. HEX LOCATION(000027F8) IN CSECT(038F5) LENGTH(2)
1652	CNTB	ADDRESS. HEX LOCATION(000027FC) IN CSECT(038F5) LENGTH(2)
1651	CNT1	ADDRESS. HEX LOCATION(000027FA) IN CSECT(038F5) LENGTH(2)
1653	CNT2	ADDRESS. HEX LOCATION(000027FE) IN CSECT(038F5) LENGTH(2)
1728	CSAB	ADDRESS. HEX LOCATION(000028C8) IN CSECT(038F5) LENGTH(4)
1678	CSN01	ADDRESS. HEX LOCATION(0000284A) IN CSECT(038F5) LENGTH(4)
1687	CSN05	ADDRESS. HEX LOCATION(00002862) IN CSECT(038F5) LENGTH(4)
1648	CSORA	ADDRESS. HEX LOCATION(000027F4) IN CSECT(038F5) LENGTH(2)
1659	CSORT	ADDRESS. HEX LOCATION(00002812) IN CSECT(038F5) LENGTH(4)
1704	CSX01	ADDRESS. HEX LOCATION(00002890) IN CSECT(038F5) LENGTH(2)
1709	CSX02	ADDRESS. HEX LOCATION(0000289E) IN CSECT(038F5) LENGTH(4)
1666	CS00	ADDRESS. HEX LOCATION(0000282C) IN CSECT(038F5) LENGTH(4)
1734	CS01	ADDRESS. HEX LOCATION(000028DA) IN CSECT(038F5) LENGTH(4)
1737	CS02	ADDRESS. HEX LOCATION(000028E2) IN CSECT(038F5) LENGTH(2)
1749	CS03	ADDRESS. HEX LOCATION(00002902) IN CSECT(038F5) LENGTH(4)
1753	CS04	ADDRESS. HEX LOCATION(0000290A) IN CSECT(038F5) LENGTH(4)
1760	CS05	ADDRESS. HEX LOCATION(0000291A) IN CSECT(038F5) LENGTH(4)
1763	CS06	ADDRESS. HEX LOCATION(00002924) IN CSECT(038F5) LENGTH(2)
1782	CS10	ADDRESS. HEX LOCATION(00002960) IN CSECT(038F5) LENGTH(2)
1795	CS12	ADDRESS. HEX LOCATION(00002986) IN CSECT(038F5) LENGTH(2)
1807	CS14	ADDRESS. HEX LOCATION(000029A6) IN CSECT(038F5) LENGTH(6)
1816	CS15	ADDRESS. HEX LOCATION(000029C8) IN CSECT(038F5) LENGTH(1)
1841	CS16	ADDRESS. HEX LOCATION(00002A06) IN CSECT(038F5) LENGTH(4)
937	CTABA	ADDRESS. HEX LOCATION(00002216) IN CSECT(038F5) LENGTH(2)
944	CTABF	ADDRESS. HEX LOCATION(00002224) IN CSECT(038F5) LENGTH(2)
942	CTABN	ADDRESS. HEX LOCATION(00002220) IN CSECT(038F5) LENGTH(2)
940	CTABP	ADDRESS. HEX LOCATION(0000221C) IN CSECT(038F5) LENGTH(2)
941	CTABS	ADDRESS. HEX LOCATION(0000221E) IN CSECT(038F5) LENGTH(2)
938	CTABU	ADDRESS. HEX LOCATION(00002219) IN CSECT(038F5) LENGTH(2)
943	CTA1E	ADDRESS. HEX LOCATION(00002222) IN CSECT(038F5) LENGTH(2)
890	CTCFP	ADDRESS. HEX LOCATION(000021D6) IN CSECT(038F5) LENGTH(1)
49	CTCM1	ADDRESS. HEX LOCATION(00001D7A) IN CSECT(038F5) LENGTH(2)
882	CTC01	ADDRESS. HEX LOCATION(000021CE) IN CSECT(038F5) LENGTH(1)
883	CTC02	ADDRESS. HEX LOCATION(000021CF) IN CSECT(038F5) LENGTH(1)
884	CTC03	ADDRESS. HEX LOCATION(000021D0) IN CSECT(038F5) LENGTH(1)

DECLARED	NAME	ATTRIBUTES AND REFERENCES
885	CTC04	1203 ADDRESS. HEX LOCATION(000021D1) IN CSECT(038F5) LENGTH(1)
886	CTC05	1209 ADDRESS. HEX LOCATION(000021D2) IN CSECT(038F5) LENGTH(1)
887	CTC06	1213 ADDRESS. HEX LOCATION(000021D3) IN CSECT(038F5) LENGTH(1)
888	CTC07	1218 ADDRESS. HEX LOCATION(000021D4) IN CSECT(038F5) LENGTH(1)
889	CTC14	1222 ADDRESS. HEX LOCATION(000021D5) IN CSECT(038F5) LENGTH(1)
50	CTDBB	1844 ADDRESS. HEX LOCATION(00001D7C) IN CSECT(038F5) LENGTH(2)
64	CTD02	394 ADDRESS. HEX LOCATION(00001D82) IN CSECT(038F5) LENGTH(2)
70	CTD03	340 369 512 ADDRESS. HEX LOCATION(00001D8C) IN CSECT(038F5) LENGTH(12)
74	CTD04	64 ADDRESS. HEX LOCATION(00001D9A) IN CSECT(038F5) LENGTH(1)
80	CTD06	65 186 342 371 514 ADDRESS. HEX LOCATION(00001D9E) IN CSECT(038F5) LENGTH(2)
84	CTD07	312 ADDRESS. HEX LOCATION(00001DA4) IN CSECT(038F5) LENGTH(3)
90	CTD10	80 ADDRESS. HEX LOCATION(00001DAA) IN CSECT(038F5) LENGTH(2)
94	CTD11	338 ADDRESS. HEX LOCATION(00001DB0) IN CSECT(038F5) LENGTH(6)
100	CTD15	90 ADDRESS. HEX LOCATION(00001DBA) IN CSECT(038F5) LENGTH(2)
104	CTD16	510 ADDRESS. HEX LOCATION(00001DC0) IN CSECT(038F5) LENGTH(3)
110	CTD20	100 ADDRESS. HEX LOCATION(00001DC6) IN CSECT(038F5) LENGTH(2)
116	CTD21	550 ADDRESS. HEX LOCATION(00001DD0) IN CSECT(038F5) LENGTH(7)
47	CTEM	110 ADDRESS. HEX LOCATION(00001D78) IN CSECT(038F5) LENGTH(1)
994	CTE02	266 ADDRESS. HEX LOCATION(00002254) IN CSECT(038F5) LENGTH(2)
996	CTE04	985 ADDRESS. HEX LOCATION(00002258) IN CSECT(038F5) LENGTH(2)
1122	CTICA	111 135 148 387 391 404 541 552 989 ADDRESS. HEX LOCATION(00002360) IN CSECT(038F5) LENGTH(1)
1123	CTICC	2004 2034 ADDRESS. HEX LOCATION(00002361) IN CSECT(038F5) LENGTH(1)
1111	CTICT	1234 1235 ADDRESS. HEX LOCATION(00002350) IN CSECT(038F5) LENGTH(2)
1121	CTIDA	1194 1199 1203 1209 1213 1218 1222 ADDRESS. HEX LOCATION(0000235F) IN CSECT(038F5) LENGTH(1)
1120	CTIDD	1184 1186 1187 ADDRESS. HEX LOCATION(0000235E) IN CSECT(038F5) LENGTH(1)
1126	CTIDF	1113 1234 ADDRESS. HEX LOCATION(00002364) IN CSECT(038F5) LENGTH(2)
1125	CTIID	1150 1518 ADDRESS. HEX LOCATION(00002362) IN CSECT(038F5) LENGTH(2)
1110	CTIT2	1156 1164 ADDRESS. HEX LOCATION(0000234E) IN CSECT(038F5) LENGTH(2)
1113	CTI04	1157 1163 1522 ADDRESS. HEX LOCATION(00002352) IN CSECT(038F5) LENGTH(2)
1118	CTI05	1165 1177 1180 1192 ADDRESS. HEX LOCATION(0000235C) IN CSECT(038F5) LENGTH(2)
1131	CTI15	1160 1181 ADDRESS. HEX LOCATION(00002368) IN CSECT(038F5) LENGTH(2)
1135	CTI16	1163 ADDRESS. HEX LOCATION(0000236E) IN CSECT(038F5) LENGTH(20)
1136	CTI17	1236 ADDRESS. HEX LOCATION(00002382) IN CSECT(038F5) LENGTH(4)
1138	CTI18	1131 ADDRESS. HEX LOCATION(0000238C) IN CSECT(038F5) LENGTH(2)
1141	CTI20	1151 ADDRESS. HEX LOCATION(00002390) IN CSECT(038F5) LENGTH(2)
1142	CTI30	1193 1198 ADDRESS. HEX LOCATION(00002392) IN CSECT(038F5) LENGTH(2)
1143	CTI35	1202 ADDRESS. HEX LOCATION(00002394) IN CSECT(038F5) LENGTH(2)
1144	CTI40	1208 ADDRESS. HEX LOCATION(00002396) IN CSECT(038F5) LENGTH(2)
1145	CTI45	1208 ADDRESS. HEX LOCATION(00002398) IN CSECT(038F5) LENGTH(2)
1146	CTI50	1212 ADDRESS. HEX LOCATION(0000239A) IN CSECT(038F5) LENGTH(2)
1147	CTI55	1217 ADDRESS. HEX LOCATION(0000239C) IN CSECT(038F5) LENGTH(2)
1149	CTI60	1221 ADDRESS. HEX LOCATION(0000239E) IN CSECT(038F5) LENGTH(2)
935	CTLEL	1231 ADDRESS. HEX LOCATION(00002212) IN CSECT(038F5) LENGTH(2)
936	CTLNG	2005 2032 2035 ADDRESS. HEX LOCATION(00002214) IN CSECT(038F5) LENGTH(2)
949	CTMNE	1663 1836 ADDRESS. HEX LOCATION(0000222E) IN CSECT(038F5) LENGTH(1)
134	CTM11	1676 2023 ADDRESS. HEX LOCATION(00001DF0) IN CSECT(038F5) LENGTH(2)
140	CTM12	315 ADDRESS. HEX LOCATION(00001DFA) IN CSECT(038F5) LENGTH(48)
987	CTM20	134 ADDRESS. HEX LOCATION(00002246) IN CSECT(038F5) LENGTH(2)
988	CTM21	388 ADDRESS. HEX LOCATION(00002248) IN CSECT(038F5) LENGTH(2)
989	CTM22	386 ADDRESS. HEX LOCATION(0000224A) IN CSECT(038F5) LENGTH(2)
209	CTM6B	387 ADDRESS. HEX LOCATION(00001EC0) IN CSECT(038F5) LENGTH(2)
213	CTM6C	455 ADDRESS. HEX LOCATION(00001EC6) IN CSECT(038F5) LENGTH(13)
219	CTM7	209 ADDRESS. HEX LOCATION(00001ED6) IN CSECT(038F5) LENGTH(2)
225	CTM7A	457 ADDRESS. HEX LOCATION(00001EE0) IN CSECT(038F5) LENGTH(30)
231	CTM7B	219 ADDRESS. HEX LOCATION(00001F02) IN CSECT(038F5) LENGTH(2)

DECLARED	NAME	ATTRIBUTES AND REFERENCES
237	CTM7C	478 ADDRESS. HEX LOCATION(00001F0C) IN CSECT(038F5) LENGTH(33)
243	CTM7D	231 ADDRESS. HEX LOCATION(00001F30) IN CSECT(038F5) LENGTH(2)
249	CTM7E	483 ADDRESS. HEX LOCATION(00001F3A) IN CSECT(038F5) LENGTH(43)
253	CTM7F	243 ADDRESS. HEX LOCATION(00001F66) IN CSECT(038F5) LENGTH(2)
1978	CTM8	220 232 244 459 480 485 ADDRESS. HEX LOCATION(00002A92) IN CSECT(038F5) LENGTH(2)
1982	CTM8A	2026 ADDRESS. HEX LOCATION(00002A98) IN CSECT(038F5) LENGTH(10)
927	CTRL5	1978 ADDRESS. HEX LOCATION(00002208) IN CSECT(038F5) LENGTH(2)
930	CTRL6	1602 ADDRESS. HEX LOCATION(0000220E) IN CSECT(038F5) LENGTH(4)
904	CTSA2	927 ADDRESS. HEX LOCATION(000021E5) IN CSECT(038F5) LENGTH(1)
905	CTSEA	1071 ADDRESS. HEX LOCATION(000021E6) IN CSECT(038F5) LENGTH(2)
907	CTSEE	1097 ADDRESS. HEX LOCATION(000021E9) IN CSECT(038F5) LENGTH(1)
906	CTSEF	984 ADDRESS. HEX LOCATION(000021E8) IN CSECT(038F5) LENGTH(1)
908	CTSEN	1068 1074 1075 1077 ADDRESS. HEX LOCATION(000021EA) IN CSECT(038F5) LENGTH(2)
893	CTW13	1067 ADDRESS. HEX LOCATION(000021DA) IN CSECT(038F5) LENGTH(2)
894	CTW16	1338 ADDRESS. HEX LOCATION(000021DC) IN CSECT(038F5) LENGTH(2)
124	CTW40	350 383 528 1069 1665 1669 1730 1735 1822 ADDRESS. HEX LOCATION(00001DDA) IN CSECT(038F5) LENGTH(2)
128	CTW41	1839 1845 ADDRESS. HEX LOCATION(00001DE0) IN CSECT(038F5) LENGTH(13)
800	CUDF	124 ABSOLUTE. HEX VALUE(00000002)
338	CXD01	1666 1668 1841 1843 1865 ADDRESS. HEX LOCATION(00001FE8) IN CSECT(038F5) LENGTH(4)
358	CXD03	346 348 ADDRESS. HEX LOCATION(00002020) IN CSECT(038F5) LENGTH(4)
393	CXINA	337 ADDRESS. HEX LOCATION(00002074) IN CSECT(038F5) LENGTH(2)
454	CXINC	399 ADDRESS. HEX LOCATION(000020DC) IN CSECT(038F5) LENGTH(1)
311	CXIN3	280 ADDRESS. HEX LOCATION(00001FC4) IN CSECT(038F5) LENGTH(1)
332	CXIN4	274 ADDRESS. HEX LOCATION(00001FDC) IN CSECT(038F5) LENGTH(1)
367	CXIN5	268 ADDRESS. HEX LOCATION(00002024) IN CSECT(038F5) LENGTH(4)
414	CXIN6	270 ADDRESS. HEX LOCATION(000020A0) IN CSECT(038F5) LENGTH(4)
421	CXIN8	272 ADDRESS. HEX LOCATION(000020A8) IN CSECT(038F5) LENGTH(4)
265	CXI02	276 442 ADDRESS. HEX LOCATION(00001F6A) IN CSECT(038F5) LENGTH(1)
291	CXI06	41 ADDRESS. HEX LOCATION(00001FB6) IN CSECT(038F5) LENGTH(4)
430	CXI81	287 ADDRESS. HEX LOCATION(000020C0) IN CSECT(038F5) LENGTH(6)
435	CXI82	426 ADDRESS. HEX LOCATION(000020CE) IN CSECT(038F5) LENGTH(1)
444	CXI89	431 ADDRESS. HEX LOCATION(000020D0) IN CSECT(038F5) LENGTH(4)
1071	CXS02	429 434 ADDRESS. HEX LOCATION(000022FE) IN CSECT(038F5) LENGTH(4)
1073	CXS03	1076 ADDRESS. HEX LOCATION(00002304) IN CSECT(038F5) LENGTH(4)
1080	CXS04	1084 1089 1092 1095 ADDRESS. HEX LOCATION(0000231A) IN CSECT(038F5) LENGTH(4)
1085	CXS05	1072 ADDRESS. HEX LOCATION(00002328) IN CSECT(038F5) LENGTH(4)
1091	CXS06	1081 ADDRESS. HEX LOCATION(00002336) IN CSECT(038F5) LENGTH(6)
1097	CXS08	1086 ADDRESS. HEX LOCATION(00002346) IN CSECT(038F5) LENGTH(4)
1156	CYI05	1078 ADDRESS. HEX LOCATION(000023A8) IN CSECT(038F5) LENGTH(6)
1170	CYI10	1189 ADDRESS. HEX LOCATION(000023D4) IN CSECT(038F5) LENGTH(2)
1177	CYI20	1114 ADDRESS. HEX LOCATION(000023DE) IN CSECT(038F5) LENGTH(6)
1185	CYI22	1172 ADDRESS. HEX LOCATION(000023F8) IN CSECT(038F5) LENGTH(2)
1192	CYI25	1188 ADDRESS. HEX LOCATION(0000240A) IN CSECT(038F5) LENGTH(6)
1196	CYI30	1178 ADDRESS. HEX LOCATION(0000241E) IN CSECT(038F5) LENGTH(4)
1202	CYI35	1171 ADDRESS. HEX LOCATION(00002430) IN CSECT(038F5) LENGTH(6)
1205	CYI40	1196 ADDRESS. HEX LOCATION(0000243E) IN CSECT(038F5) LENGTH(2)
1212	CYI45	1170 ADDRESS. HEX LOCATION(00002452) IN CSECT(038F5) LENGTH(6)
1215	CYI50	1206 ADDRESS. HEX LOCATION(00002460) IN CSECT(038F5) LENGTH(4)
1221	CYI55	1205 ADDRESS. HEX LOCATION(00002472) IN CSECT(038F5) LENGTH(6)
1225	CYI60	1215 ADDRESS. HEX LOCATION(00002480) IN CSECT(038F5) LENGTH(6)
1238	CYI65	1195 1200 1204 1210 1214 1219 1223 ADDRESS. HEX LOCATION(000024A6) IN CSECT(038F5) LENGTH(6)
1240	CYI70	1229 ADDRESS. HEX LOCATION(000024AC) IN CSECT(038F5) LENGTH(4)
1154	CYRID	1166 1174 1226 ADDRESS. HEX LOCATION(000023A4) IN CSECT(038F5) LENGTH(2)
40	CYR00	1519 ADDRESS. HEX LOCATION(00001D70) IN CSECT(038F5) LENGTH(4)
1420	DET15	2049 ADDRESS. HEX LOCATION(000026AA) IN CSECT(038F5) LENGTH(1)

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DECLARED	NAME	ATTRIBUTES AND REFERENCES
1437	DET17	1428 ADDRESS. HEX LOCATION(000026D0) IN CSECT(038F5) LENGTH(1)
1441	DET18	1423 ADDRESS. HEX LOCATION(000026D8) IN CSECT(038F5) LENGTH(1)
1455	DET20	1447 ADDRESS. HEX LOCATION(000026F8) IN CSECT(038F5) LENGTH(1)
1462	DET21	1439 1444 ADDRESS. HEX LOCATION(00002708) IN CSECT(038F5) LENGTH(1)
1258	DNTAB	1435 1454 ADDRESS. HEX LOCATION(000024B0) IN CSECT(038F5) LENGTH(2)
1398	DVTNA	1419 ADDRESS. HEX LOCATION(00002672) IN CSECT(038F5) LENGTH(2)
1405	DVTUN	1440 ADDRESS. HEX LOCATION(00002692) IN CSECT(038F5) LENGTH(8)
660	EIGHT	1457 ABSOLUTE. HEX VALUE(00000008)
540	FLOAT	1430 1449 1456 ADDRESS. HEX LOCATION(0000218C) IN CSECT(038F5) LENGTH(4)
666	FORTN	285 ABSOLUTE. HEX VALUE(0000000E)
656	FOUR	1419 1421 ABSOLUTE. HEX VALUE(00000004)
303	FUFIN	1434 1453 ADDRESS. HEX LOCATION(00001FBE) IN CSECT(038F5) LENGTH(2)
304	FUNR	269 321 358 408 415 444 450 496 532 ADDRESS. HEX LOCATION(00001FC0) IN CSECT(038F5) LENGTH(4)
606	HTOE	293 ABSOLUTE. HEX VALUE(0000001A)
582	IDLE	380 389 1232 ABSOLUTE. HEX VALUE(00000002)
2019	NEXTE	1185 ADDRESS. HEX LOCATION(00002AB6) IN CSECT(038F5) LENGTH(2)
2030	NEXT2	317 542 553 ADDRESS. HEX LOCATION(00002ACE) IN CSECT(038F5) LENGTH(4)
2037	NEXT4	2024 ADDRESS. HEX LOCATION(00002AE8) IN CSECT(038F5) LENGTH(4)
549	OEMIA	2028 ADDRESS. HEX LOCATION(0000219E) IN CSECT(038F5) LENGTH(4)
856	OLYRA	283 ADDRESS. HEX LOCATION(000021B6) IN CSECT(038F5) LENGTH(2)
653	ONE	40 304 ABSOLUTE. HEX VALUE(00000001)
580	OUT	541 552 1446 ABSOLUTE. HEX VALUE(00000000)
581	OUTIN	292 313 339 368 382 456 470 490 511 525 1237 1482 1493 1881 2027 ABSOLUTE. HEX VALUE(00000001)
3	O38F5	316 345 370 401 422 458 479 484 513 551 1475 CSECT. START(00001D70) LENGTH(3452) ESDID(1)
912	PASS1	3 ADDRESS. HEX LOCATION(000021F0) IN CSECT(038F5) LENGTH(2)
1649	PBOTT	1228 ADDRESS. HEX LOCATION(000027F6) IN CSECT(038F5) LENGTH(2)
588	RESEI	1732 1754 1775 1803 1807 1808 ABSOLUTE. HEX VALUE(00000008)
589	R1D	1182 ABSOLUTE. HEX VALUE(00000009)
0	R0	1161 REGISTER. HEX VALUE(00000000)
0	R1	1562 REGISTER. HEX VALUE(00000001)
		334 342 343 344 345 347 350 352 355 355 356 357 390 393 394 396 424 428 433 475 476 506 507 514 515 516 517 521 528 530 531 1065 1066 1070 1071 1073 1083 1088 1091 1094 1097 1417 1432 1433 1438 1451 1452 1458 1459 1463 1567 1570 1573 1660 1661 1664 1665 1666 1668 1669 1670 1677 1678 1681 1690 1691 1692 1693 1695 1700 1704 1704 1705 1709 1710 1711 1715 1716 1717 1720 1721 1728 1729 1731 1734 1735 1737 1745 1745 1749 1749 1753 1754 1761 1773 1779 1791 1802 1803 1820 1821 1823 1828 1829 1831 1835 1837 1840 1863 1865 1887 1888 2002 2007 2020 2021 2022 2023 2030 2031 2032 2033 2036
0	R2	REGISTER. HEX VALUE(00000002)
		267 269 271 273 275 277 279 282 284 286 303 335 336 351 352 371 372 373 374 376 383 385 392 397 398 507 508 529 530 1066 1075 1419 1421 1422 1426 1427 1431 1434 1440 1442 1443 1446 1450 1453 1661 1666 1667 1668 1691 1700 1702 1704 1706 1707 1714 1715 1717 1729 1730 1731 1732 1760 1763 1763 1765 1779 1782 1782 1784 1791 1792 1795 1795 1797 1821 1822 1823 1824 1826 1829 1830 1831 1838 1839 1840 1841 1843 1846 1847 1865 1866 2003 2006 2034 2036
0	R3	REGISTER. HEX VALUE(00000003)
		384 385 386 406 1235 1676 1680 1682 1687 1699 1701 1702 1707 1711 1737 1773 1774 1775 1777 1824 1825 1826 1841 1842 1843 1844 1845 1846 2004 2006
0	R4	REGISTER. HEX VALUE(00000004)
0	R5	REGISTER. HEX VALUE(00000005)
		404 406 486 1522 1523 474 494 494 495 1446 1450 1452 1457 1459 1460 1461 1524 1438 1763 1764 1777 1782
0	R6	REGISTER. HEX VALUE(00000006)
		1783 1793 1795 1796 459 460 462 464 466 473 474 480 485 486 493 1067 1068 1069 1070 1077 1080 1085 1155 1240 1425 1431 1433 1434 1453 1461 1489 1523 1527 1529 1531 1533 1535 1537 1540 1543 1663 1664 1670 1762 1766 1767 1781 1785 1786 1794 1798 1799 1836 1837 1847 2019 2037
0	R7	REGISTER. HEX VALUE(00000007)
		40 288 291 312 314 315 317 338 340 367 369 379 401 389 391 393 396 400 414 421 449 465 469 469 478 483 489 510 512 519 520 521 524 540 542 549

CROSS-REFERENCE LISTING

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DECLARED	NAME	ATTRIBUTES AND REFERENCES
658	SIX	550 553 1098 1155 1160 1181 1231 1236 1416 1425 1426 1427 1430 1449 1456 1473 1474 1477 1478 1481 1487 1492 1517 1519 1525 1574 1585 1586 1587 1602 1659 1778 1786 1790 1799 1849 1850 1862 1880 1904 2002 2005 2019 2026 2035 ABSOLUTE. HEX VALUE(00000006)
455	SS001	1431 ADDRESS. HEX LOCATION(000020DC) IN CSECT(038F5) LENGTH(4)
473	SS002	471 ADDRESS. HEX LOCATION(00002104) IN CSECT(038F5) LENGTH(2)
478	SS003	461 463 465 467 ADDRESS. HEX LOCATION(00002112) IN CSECT(038F5) LENGTH(4)
493	SS004	491 ADDRESS. HEX LOCATION(00002136) IN CSECT(038F5) LENGTH(2)
495	SS005	487 ADDRESS. HEX LOCATION(0000213C) IN CSECT(038F5) LENGTH(4)
1955	STCRA	477 481 ADDRESS. HEX LOCATION(00002A8E) IN CSECT(038F5) LENGTH(2)
1904	STCS	1904 1953 ADDRESS. HEX LOCATION(00002A86) IN CSECT(038F5) LENGTH(4)
1570	STYP5	1850 ADDRESS. HEX LOCATION(000027B6) IN CSECT(038F5) LENGTH(2)
1573	STYP7	1563 ADDRESS. HEX LOCATION(000027BA) IN CSECT(038F5) LENGTH(2)
1574	STYP9	1565 ADDRESS. HEX LOCATION(000027BC) IN CSECT(038F5) LENGTH(4)
505	TCSEN	1568 1571 ADDRESS. HEX LOCATION(00002144) IN CSECT(038F5) LENGTH(1)
512	TCS03	278 ADDRESS. HEX LOCATION(00002156) IN CSECT(038F5) LENGTH(4)
524	TCS04	526 ADDRESS. HEX LOCATION(00002174) IN CSECT(038F5) LENGTH(4)
528	TCS05	518 ADDRESS. HEX LOCATION(0000217C) IN CSECT(038F5) LENGTH(4)
532	TCS08	522 ADDRESS. HEX LOCATION(00002188) IN CSECT(038F5) LENGTH(4)
662	TEN	509 ABSOLUTE. HEX VALUE(0000000A)
587	TERM	1440 1442 ABSOLUTE. HEX VALUE(00000007)
654	TWO	1590 1604 ABSOLUTE. HEX VALUE(00000002)
612	WRITI	1426 1450 ABSOLUTE. HEX VALUE(00000020)
652	ZERO	1603 ABSOLUTE. HEX VALUE(00000000) 1422 1427 1443 1460

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