

LOCTR OBJECT TEXT STMT SOURCE STATEMENT COPYRIGHT IBM CORP 1976
3 COPY LOG4002 ** MAP EC HISTORY **
4 *****
5
6
7 *** PREREQUISITES ***
8
9 HARDWARE EC 576943A
10 *****
11
12 *** MODIFICATIONS ***
13
14 MODIFICATIONS MADE TO CORRECT PROB. ENCOUNTERED DURING TEST*
15 *****
16
17 *** REA'S INCORPORATED ***
18
19 NONE
20
21 *****
22
23 *** SPECIAL INSTRUCTIONS ***
24
25 NONE
26
27 *****
28
29
30 *** E. C. HISTORY ***
31
32 DATE 10JUN77 DATE 22JUL77 DATE 01SEP78 DATE
33 E.C. 578625 E.C. 578757 E.C. 374888 E.C.
34 *****
35 I4002 START X'2500' START ADDRESS OF ALL 'I' TYPE PROG
36 @QUES EQU X'0100' EQUATED VALUE FOR MDI STATEMENT
37 @FIXT EQU X'0101' EQUATED VALUE FOR MDI STATEMENT
38 @STOP EQU X'0102' EQUATED VALUE FOR MDI STATEMENT
39 @GOTO EQU X'0200' EQUATED VALUE FOR MDI STATEMENT
40 @CALL EQU X'0201' EQUATED VALUE FOR MDI STATEMENT
41 @INPT EQU X'0300' EQUATED VALUE FOR MDI STATEMENT
42 @QUXX EQU X'0400' EQUATED VALUE FOR MDI STATEMENT
43 @VUXX EQU X'0500' EQUATED VALUE FOR MDI STATEMENT
44 @NVLD EQU X'0600' EQUATED VALUE FOR MDI STATEMENT
45 @EQUATE EQU X'0000' EQUATE FOR EQUAL
46 @NEQUATE EQU X'0004' EQUATE FOR NOT EQUAL
47 @HI EQU X'0008' EQUATE FOR HIGH
48 @NH EQU X'000C' EQUATE FOR NOT HIGH
49 @LO EQU X'0010' EQUATE FOR LOW
50 @NL EQU X'0014' EQUATE FOR NOT LOW
51 @LT EQU X'0018' EQUATE FOR LESS THAN
52 @LE EQU X'000C' EQUATE FOR LESS THAN OR EQUAL TO
53 @GT EQU X'0008' EQUATE FOR GREATER THAN
54 @GE EQU X'0014' EQUATE FOR GREATER THAN OR EQUAL TO
55 @ON EQU X'0200' EQUATE FOR ON
56 @OFF EQU X'0202' EQUATE FOR OFF
57 @MIX EQU X'0204' EQUATE FOR MIXED
58 @EBC EQU X'0000' EQUATE FOR EBCDIC DATA TRANSFER
59 @HEX EQU X'0001' EQUATE FOR HEX DATA TRANSFER
60 @XTRNL EQU X'0001' EQUATE FOR EXTERNAL REFERENCE
61 @INTNL EQU X'0000' EQUATE FOR INTERNAL REFERENCE
62 @PARM EQU X'0000' EQUATE INDICATING PARAMETER
63 @DA EQU X'0001' EQUATE FOR DEVICE ADDRESS
64 @UA EQU X'0002' EQUATE FOR UNIT ADDRESS
65 @DUMMY EQU X'0000' DUMMY EQUATE
66 @PID EQU *-X'0D00' ADDRESS OF MDI HEADER
67 @EYPE EQU *-X'22C0' ADDRESS OF PROCESSOR TYPE FIELD
68 @STEPNUM EQU PID+X'000C' ADDRESS OF DECIMAL STEP NUMBER
69 @OPWD1 EQU PID+X'000E' ADDRESS OF OPTION WORD ONE
70 @OPWD2 EQU PID+X'0010' ADDRESS OF OPTION WORD TWO
71 @TUSTATUS EQU PID+X'0018' ADDRESS OF TU STATUS WORD
72 @TUWORK EQU PID+X'001A' ADDRESS OF TU WORK AREA
73 @TUPARM1 EQU PID+X'009A' ADDRESS OF PARM 1 POINTER
74 @TUPARM2 EQU PID+X'009C' ADDRESS OF PARM 2 POINTER
75 @TUPARM3 EQU PID+X'009E' ADDRESS OF PARM 3 POINTER
76 @TUPARM4 EQU PID+X'00A0' ADDRESS OF PARM 4 POINTER
77 @TUPARM5 EQU PID+X'00A2' ADDRESS OF PARM 5 POINTER
78 @TUPARM6 EQU PID+X'00A4' ADDRESS OF PARM 6 POINTER
79 @TUPARM7 EQU PID+X'00A6' ADDRESS OF PARM 7 POINTER
80 @TUPARM8 EQU PID+X'00A8' ADDRESS OF PARM 8 POINTER
81 @TUPARM9 EQU PID+X'00AA' ADDRESS OF PARM 9 POINTER
82 @TUPARM10 EQU PID+X'00AC' ADDRESS OF PARM 10 POINTER
83 @TUPARM11 EQU PID+X'00AE' ADDRESS OF PARM 11 POINTER
84 @TUPARM12 EQU PID+X'00B0' ADDRESS OF PARM 12 POINTER
85 @TUPARM13 EQU PID+X'00B2' ADDRESS OF PARM 13 POINTER
86 @TUPARM14 EQU PID+X'00B4' ADDRESS OF PARM 14 POINTER
87 @TUPARM15 EQU PID+X'00B6' ADDRESS OF PARM 15 POINTER
88 @TUPARM16 EQU PID+X'00B8' ADDRESS OF PARM 16 POINTER
89 @TUMSGWTR EQU PID+X'00BA' ADDRESS OF -> TO COMMON MSG WRITER
90 @TUUA EQU PID+X'00BE' ADDRESS OF UNIT ADDRESS IN EBC
91 @TUDA EQU PID+X'00C0' ADDRESS OF DEVICE ADDRESS IN EBC
92 @TUBUF EQU PID+X'00C2' ADDRESS OF LAST USED WORD IN MAP
93 @TULAST EQU PID+X'00C4' ADDRESS OF LAST ADDRESSABLE WORD
94 @TURESUL EQU PID+X'00C6' ADDRESS OF LENGTH OF TU RESULTS
95 @TURESULN EQU PID+X'00C8' ADDRESS OF TU RESULTS FIELD
96 @MAPNAME EQU PID+X'00FC' ADDRESS OF MAP NAME FIELD IN HEX
97 @TUINPT EQU PID+X'0148' ADDRESS OF SINPT DATA
98 @PARMARA EQU PID+X'016E' ADDRESS OF SINPT INPUT AREA
99 @DCADD1 EQU PID+X'01B8' MDI POINTER
100 @DCADD2 EQU PID+X'01BA' MDI POINTER
101 @SUPSTAT EQU PID+X'01C4' ADDRESS OF MDI STATUS
102 @DEVADD EQU PID+X'01D0' ADDRESS OF DEVICE ADDRESS TABLE 0
103 @DEVADD1 EQU PID+X'01DA' ADDRESS OF DEVICE ADDRESS TABLE 1
104 @DEVADD2 EQU PID+X'01DE' ADDRESS OF DEVICE ADDRESS TABLE 2
105 @DEVADD3 EQU PID+X'01E2' ADDRESS OF DEVICE ADDRESS TABLE 3
106 @DEVADD4 EQU PID+X'01E8' ADDRESS OF DEVICE ADDRESS TABLE 4
107 @DEVADD5 EQU PID+X'0202' ADDRESS OF DEVICE ADDRESS TABLE 5
108 @DEVADD6 EQU PID+X'020C' ADDRESS OF DEVICE ADDRESS TABLE 6
109 @DEVADD7 EQU PID+X'0216' ADDRESS OF DEVICE ADDRESS TABLE 7
110
111 PRINT OFF
112
113

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002500 253A
198 DC A (ENTPT) POINT TO MAP ENTRY POINT TABLE
199 *****
200 *****
201 *****
202 THE FOLLOWING TABLES ARE USED BY THE MDI SUPERVISOR (D3C00)
203 TO LOCATE THE CORRECT RULE TO INVOKE TO OBTAIN THE PROPER
204 PARAMETERS TO PASS TO THE TU'S AND TO PASS TO THE OPERATOR
205 THE INDICATED MESSAGE(S). THERE ARE FOUR TABLES USED FOR THIS
206 PURPOSE THEY ARE:
207
208 STEP AND RULE ADDRESS TABLE
209 THIS TABLE GIVES THE ADDRESS OF THE RULE TO INVOKE AND
210 THE ASSOCIATED STEP DECIMAL STEP NUMBER OF THAT RULE.
211 ENTRIES ARE AS FOLLOWS:
212 A) AN ADDRESS OF THE RULE DC START AREA
213 B) THE STEP NUMBER IN DECIMAL
214 C) AN EQUATE FOR THE STEP NUMBER
215
216 RULE INFORMATION TABLE
217 THIS TABLE CONTAINS THE REQUIRED INFORMATION TO EXECUTE
218 THE APPROPRIATE RULE UNDER MDI. EACH RULE HAS ITS OWN
219 UNIQUELY DEFINED AREA INDICATED BELOW. END OF TABLE IS
220 INDICATED WITH A X'0000' FOR THE RULE EQUATE.
221
222 \$QUES
223 A) RULE EQUATE X'0100'
224 B) ADDRESS OF THE YES LEG RULE
225
226 \$FIXT
227 A) RULE EQUATE X'0101'
228 B) ADDRESS OF MESSAGE TO PRINT
229
230 \$STOP
231 A) RULE EQUATE X'0102'
232 B) ADDRESS OF MESSAGE
233
234 \$GOTO
235 A) RULE EQUATE X'0200'
236 B) ADDRESS OF MESSAGE
237 C) NAME OF MAP TO GO TO
238 D) ENTRY POINT WITHIN GO TO MAP TO USE
239 E) INDICATOR FOR EXTERNAL OR INTERNAL REFERENCE
240
241 \$CALL
242 A) RULE EQUATE X'0201'
243 B) ADDRESS OF MESSAGE
244 C) NAME OF MAP TO CALL
245 D) ENTRY POINT WITHIN CALLED MAP TO USE
246 E) INDICATOR FOR EXTERNAL OR INTERNAL REFERENCE
247
248 \$INPT
249 A) RULE EQUATE X'0300'
250 B) INPUT TYPE (EBCDIC OR HEX)
251 C) ADDRESS OF YES LEG RULE
252 D) DESTINATION LOCATION OF INPUT DATA
253 E) LENGTH OF INPUT DATA
254 F) LOWER LIMIT OF GOOD DATA
255 G) HIGHER LIMIT OF GOOD DATA
256
257 \$QUXX
258 A) RULE EQUATE X'0400'
259 B) ADDRESS OF YES LEG RULE
260 C) TU BRANCH TO ADDRESS (INITIAL)
261 D) TU BRANCH TO ADDRESS (SECONDARY)
262 E) LENGTH OF PARAMETER IN BYTES
263 F) PARAMETER TO PASS TO TU
264 G) STORE ADDRESS FOR FIRST 8 WORDS OF PARAMETER
265
266 \$TUXX
267 A) RULE EQUATE X'0500'
268 B) ADDRESS OF YES LEG RULE
269 C) TU BRANCH TO ADDRESS
270 D) TYPE OF COMPARE TO MAKE ON RESULTS
271 E) LENGTH OF COMPARED RESULTS
272 F) MASK FIELD FOR COMPARE
273 G) LENGTH OF PARAMETER IN BYTES
274 H) PARAMETER TO PASS TO THE TU
275 I) STORE ADDRESS FOR FIRST 8 WORDS OF PARAMETER
276
277 \$NVLD
278 A) RULE EQUATE X'0600'
279
280 ENTRY POINT TABLE
281 THIS TABLE CONTAINS THE ENTRY POINTS WITHIN THE MAP THAT
282 THE MAP CAN BE ENTERED FROM THESE ENTRY POINTS ARE
283 REFERENCED BY NAME AND ADDRESS. ENTRIES ARE AS FOLLOWS:
284
285 A) NAME OF ENTRY POINT
286 B) ADDRESS OF ENTRY POINT RULE TABLE
287
288 THE ENTRY POINT TABLE END IS INDICATED BY A X'0000'
289
290 MESSAGE TABLE
291 THIS TABLE CONTAINS THE MESSAGE PASSED TO THE OPERATOR
292 VIA THE MDI SUPERVISOR. THE TABLE IS AS FOLLOWS:
293
294 A) EQUATE FOR START OF MESSAGE BLOCK
295 B) NUMBER OF LINES OF MESSAGE
296 C) LENGTH OF FOLLOWING LINE
297 D) FIRST LINE OF MESSAGE
298 E) LENGTH OF FOLLOWING LINE
299 F) SECOND LINE OF MESSAGE
300 G) ETC.
301
302 *****
303 *****
304 *****
305 *****

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308 *****
309 *****
310 **
311 ** STEP AND RULE ADDRESS TABLE
312 **
313 **
314 *****
315 DC AL2(N00001)
316 DC XL2'0001'

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424 COPY COMEQU
425 *****
426 *
427 * EQUATED NAMES FOR SUPPORTED SVC'S
428 *
429 *****
430 OUT EQU 0 OUT SVC
431 OUTIN EQU 1 OUTIN SVC
432 IDLE EQU 2 IDLE SVC
433 IDLE5 EQU 3 IDLE SVC - INDEPENDENT OF CPU TYPE
434 CHNGE EQU 4 CHANGE LEVEL SVC
435 PGMCK EQU 5 ALLOW RETURN ON PROGRAM CHECK SVC
436 EXIT EQU 6 EXIT SVC
437 TERM EQU 7 TERMINATE SVC
438 RESET EQU 8 RESET DEVICE SVC
439 RID EQU 9 READ ID SVC
440 START EQU 10 START CYCLE STEAL SVC
441 STCSS EQU 11 START CYCLE STEAL STATUS SVC
442 PREP EQU 12 PREPARE DEVICE SVC
443 READ0 EQU 13 READ WITH FUNCTION BIT 3 OFF SVC
444 READ1 EQU 14 READ WITH FUNCTION BIT 3 ON SVC
445 RSTAT EQU 15 READ STATUS SVC
446 WRST0 EQU 16 WRITE WITH FUNCTION BIT 3 OFF SVC
447 WRST1 EQU 17 WRITE WITH FUNCTION BIT 3 ON SVC
448 CTRL EQU 18 CONTROL SVC
449 RICEB EQU 19 RELEASE INTERRUPT CONTROL BLOCK SVC
450 CIBC EQU 20 CONNECT INTERRUPT CONTROL BLOCK SVC
451 HIO EQU 21 HALT ALL I/O
452 REQSD EQU 22 REQUEST USE OF DCP DISK SVC
453 RELSD EQU 23 RELEASE USE OF DCP DISK SVC
454 HALT EQU 24 HALT SVC
455 ETOH EQU 25 EBCDIC TO HEX SVC (STRING)
456 ATOH EQU 26 HEX TO EBCDIC SVC (STRING)
457 HTOA EQU 27 ASCII TO HEX SVC (STRING)
458 ATOA EQU 28 HEX TO ASCII SVC (STRING)
459 ETOA EQU 29 EBCDIC TO ASCII SVC (STRING)
460 ATOE EQU 30 ASCII TO EBCDIC SVC (STRING)
461 READI EQU 31 READ DATA SETS FOR MDI/UTIL
462 WRITI EQU 32 WRITE DATA SETS FOR UTIL
463 *****
464 *****
465 *
466 * EQUATES USED BY TU'S AS CONSTANTS
467 *
468 *****
469 PLUS EQU C '+' PLUS CHAR
470 MINUS EQU C '-' MINUS CHAR
471 ZERO EQU 0
472 ONE EQU 1
473 TWO EQU 2
474 THREE EQU 3
475 FOUR EQU 4
476 FIVE EQU 5
477 SIX EQU 6
478 SEVEN EQU 7
479 EIGHT EQU 8
480 NINE EQU 9
481 TEN EQU 10
482 ELEVN EQU 11
483 TWELV EQU 12
484 THRTN EQU 13
485 FIVTN EQU 15
486 SIXTN EQU 16
487 SEVNTN EQU 17
488 EIGHTN EQU 18
489 NINETN EQU 19
490 ONE28 EQU 28
491 TWO56 EQU 56
492 ONEK EQU 1024
493 TWOK EQU 2048
494 THREK EQU 3072
495 FOURK EQU 4096
496 *****
497 M1 EQU -1
498 M2 EQU -2
499 M3 EQU -3
500 M4 EQU -4
501 *****
502 *****
503 *
504 * THE FOLLOWING ARE EQUATES FOR BIT DISPLACEMENTS FROM THE
505 * BEGINNING OF THE BYTE TO EACH BIT IN THE WORD OF SWITCHES.
506 *
507 *****
508 BS0 EQU 0
509 BS1 EQU 1
510 BS2 EQU 2
511 BS3 EQU 3
512 BS4 EQU 4
513 BS5 EQU 5
514 BS6 EQU 6
515 BS7 EQU 7
516 BS8 EQU 8
517 BS9 EQU 9
518 BS10 EQU 10
519 BS11 EQU 11
520 BS12 EQU 12
521 BS13 EQU 13
522 BS14 EQU 14
523 BS15 EQU 15
524 *****
525 COPY T4002
526 *****
527 *
528 * TEST OVERVIEW AND OPERATING PROCEDURES
529 *
530 * THIS TEST IS DESIGNED TO RUN THE TTY ATTACHMENT IN ECHO-PRINT MODE.
531 * IT ASSUMES AN ATTACHED TTY-COMPATIBLE I/O DEVICE. THIS PROGRAM RUNS
532 * UNDER CONTROL OF THE DIAGNOSTIC CONTROL PROGRAM (DCP), WITH ITS
533 * ATTENDANT CONTROLS AND RESTRICTIONS.
534 *
535 *****
536 *
537 *****
538 *****
539 *
540 * CONSTANTS AND EQUATES
541 *
542 *****
543 *

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0025B4 4002 544 TUID DC X'4002' TEST UNIT ID
0025B6 0000 545 RTNE DC A(*-*) CURRENT ROUTINE IN EXECUTION
0025B8 0000 546 CKPT DC A(*-*) CURRENT CHECKPOINT WITHIN A ROUTINE
0025BA 00000000 547 IDCB DC 2A(*-*) IDCB LAST EXECUTED
0025BE 4002 548 PGMID DC X'4002' PROGRAM IDENTIFIER FOR MESSAGES
0025C0 000000000000000000 549 BUFR DC 30A(*-*) PRINT BUFFER
0025FC 25C0 550 CTLBK DC A(BUFR) 'SVC OUT' CONTROL BLOCK (MSGG ADDR)
0025FE 0000 551 DAPTR DC A(*-*) POINTER TO DEVICE ADDRESS VECTOR
002600 0000 552 DDB DC A(*-*) STA'S (FOR INTERRUPT SERVICE) GO HERE
002602 454E4420 553 EMASK DC S'END ' 'END ' ODD MASK TERMINATION CHECKS
002606 C54E44A0 554 FMASK DC X'54E44A0' 'END ' EVEN MASK TERMINATION CHECKS
00260A 01 555 IBIT DC X'01' CODE FOR SETTING 'I BIT' IN I/O OPS
00260C 0000 556 INTIN DC A(*-*) 'INTERRUPT OCCURRED' INDR
00260E 000000000000000000 557 *
558 * LSB DC 11A(*-*) LEVEL STATUS BLOCK SAVE AREA
002624 3803 559 *
560 MCKCD DC X'3803' 'DCP/MDI MACHINE CHECK INDR' CODE
002626 0000 561 MCP SW DC A(*-*) 'MACHINE CHECK PSW' SAVE AREA
002628 0000 562 *
563 PARM1 DC A(*-*) 'HTOE' UTILITY ROUTINE CONTROL BLOCK
00262A 0000 564 PARM2 DC A(*-*) * 'PARM1' = CHAR CNT, 'PARM2' = HEX
00262C 0000 565 PARM3 DC A(*-*) * DATA ADDR, 'PARM3' = EBCDIC ADDR
002630 0000 566 *
567 SAVER DC A(*-*) DCP MACH CHK INT XFER VCTR SAVE AREA
002632 0000 568 SDCP DC A(*-*) DCP PRIORITY INT XFER VCTR SAVE AREA
00000A 0000 569 *
570 MCK EQU X'000A' 'MACHINE CHECK' CLASS INT XFER VCTR
571 *
572 *
573 *****
574 *
575 * IMMEDIATE DEVICE CONTROL BLOCKS (IDCB'S)
576 *
577 *****
578 *
579 PREPR DC X'60' 'PREPARE' DCB
002633 00 580 PRPDA DC X'00' DEVICE ADDR
002634 00 581 *
002635 00 582 * 'PREPARE DATA' BYTE
583 *
584 READ DC X'10' 'READ' IDCB
002637 00 585 RDDA DC X'00' DEVICE ADDR
002638 00 586 *
002639 00 587 RDATA DC X'00' 'READ DATA' BYTE
588 *
589 RST DC X'6F' 'RESET' IDCB
00263B 00 590 RSTDA DC X'00' DEVICE ADDR
00263C 0000 591 *
592 *
593 WRITE DC X'50' 'WRITE' IDCB
00263E 00 594 WRDCA DC X'00' DEVICE ADDR
002640 00 595 *
002641 00 596 * 'WRITE DATA' BYTE
597 *
598 *
599 *
600 ** 'MACHINE CHECK STATUS' MESSAGE TEXT
601 *
002642 D4C3D240D4C1D7407 602 MCMMSG DC C'MCK MAP = 4002'
002650 40E2E3C5D7407E40 603 DC C' STEP = '
002658 00000000 604 STEP DC 2A(*-*)
00265C 40D7E2E6407E40 605 DC C' PSW = '
002664 00000000 606 PSW DC 2A(*-*)
002668 40C9C1D9407E40 607 DC C' IAR = '
002670 00000000 608 IAR DC 2A(*-*)
002674 40C9C4C3C2407E40 609 DC C' IDCB = '
00267C 0000000000000000 610 IDCBX DC 4A(*-*)
002684 00 611 DC X'00' TERMINATOR
002686 2686 612 *
613 MCMND DC A(MCMND) END OF MESSAGE TEXT STRING
614 *
615 *****
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0026C2 3009 662 SLL 1,R0 SET UP VECTOR ADDR FOR THIS DVC ADDR
0026C4 0030 663 ABI X'30',R0
0026C6 680D 25FE 664 MVA R0,DAPTR
0026CA 8808 2630 665 MVA (R0),SDCP SAVE IT
0026CE 4000 2600 666 MVA DDB,(R0) SAVE THE CONTENTS
0026D2 4324 25B4 667 MVA TUID,R3 SET TRANSFER VECTOR
668 * SET RAS DISPLAY POINTER
669 *
670 *****
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I4002 --- TTY ATTACHMENT ECHO-PRINT MAP P/N=4412867 EC=374888 PAGE 04

LOCTR	OBJECT TEXT	STMT	SOURCE STATEMENT	COPYRIGHT IBM CORP 1976
00276E	4020 2628 0002	781	MVWI 2,PARM1	CONVERT THE STEP NUMBER FROM HEX TO
002774	4020 262A 180C	782	MVA STEPNUM,PARM2	* EBCDIC AND INSTALL IT IN THE 'MACHK
00277A	4020 262C 2658	783	MVA STEP,PARM3	* STATUS' MESSAGE
002780	601A	784	SVC HTOE	*
002782	4020 262A 2626	785	*	
002788	4020 262C 2664	786	MVA MCPSW,PARM2	CONVERT THE SAVED 'MACHK PSW' FROM
00278E	601A	787	MVA PSW,PARM3	* HEX TO EBCDIC AND INSTALL IT IN THE
		788	SVC HTOE	* 'MACHK STATUS' MESSAGE STRING
002790	4020 262A 260E	789	*	
002796	4020 262C 2670	790	MVA LSB,PARM2	CONVERT THE FAILING ADDRESS FROM HEX
00279C	601A	791	MVA IAR,PARM3	* TO EBCDIC AND INSTALL IT IN THE
		792	SVC HTOE	* 'MACHK STATUS' MESSAGE STRING
00279E	4020 2628 0004	793	*	
0027A4	4020 262A 25BA	794	MVWI 4,PARM1	CONVERT THE LAST IDCB FROM HEX TO
0027AA	4020 262C 267C	795	MVA IDCB,PARM2	* EBCDIC AND INSTALL IT IN THE 'MACHK
0027B0	601A	796	MVA IDCBX,PARM3	* STATUS' MESSAGE STRING
		797	SVC HTOE	*
0027B2	8828 2624 25BE	798	*	
0027B8	4124 2642	799	MVW MCKCD,PGMID	SET PROGRAM ID TO 'DCP/MDI' (FAKE IT)
0027BC	4224 25C0	800	MVA MCMMSG,R1	MOVE MESSAGE STRING TO BUFFER
0027C0	4724 0044	801	MVA BUFR,R2	*
0027C4	2944	802	MVWI MCMND-MCMMSG,R7	*
0027C6	6808 180C	803	MVFN (R1),(R2)	*
0027CA	C120 19D0	804	MVW STEPNUM,R0	SET STEP NUMBER
0027CE	4224 0000	805	MVE DEVADD,R1	SET DEVICE ADDRESS
0027D2	4724 25FC	806	MVWI 0,R2	(RESERVED)
0027D6	6000	807	MVA CTLBK,R7	SET CONTROL BLOCK POINTER
0027D8	6802 274A	808	SVC OUT	OUTPUT THE MESSAGE
		809	B GDEND	BRANCH
000000		810	*	
		811	END	

I4002 --- TTY ATTACHMENT ECHO-PRINT MAP P/N=4412867 EC=374888 PAGE 04A

DECLARED	NAME	CROSS-REFERENCE LISTING	COPYRIGHT IBM CORP 1976
46	@NVLD	ABSOLUTE. HEX VALUE(00000600)	
38	@QUES	ABSOLUTE. HEX VALUE(00000100)	
40	@STOP	ABSOLUTE. HEX VALUE(00000102)	
45	@TUXX	ABSOLUTE. HEX VALUE(00000500)	
549	BUFR	ADDRESS. HEX LOCATION(000025C0) IN CSECT(I4002) LENGTH(2)	
546	CKPT	ADDRESS. HEX LOCATION(000025B8) IN CSECT(I4002) LENGTH(2)	
550	CTLBK	ADDRESS. HEX LOCATION(000025FC) IN CSECT(I4002) LENGTH(2)	
551	DAPTR	ADDRESS. HEX LOCATION(000025FE) IN CSECT(I4002) LENGTH(2)	
552	DDB	ADDRESS. HEX LOCATION(00002600) IN CSECT(I4002) LENGTH(2)	
105	DEVADD	ADDRESS. HEX LOCATION(000019D0) IN CSECT(I4002) LENGTH(1)	
67	DUMMY	ABSOLUTE. HEX VALUE(00000000)	
553	EMASK	ADDRESS. HEX LOCATION(00002602) IN CSECT(I4002) LENGTH(4)	
362	ENTPT	ADDRESS. HEX LOCATION(0000253A) IN CSECT(I4002) LENGTH(1)	
47	EQ	ABSOLUTE. HEX VALUE(00000000)	
554	FMASK	ADDRESS. HEX LOCATION(00002606) IN CSECT(I4002) LENGTH(4)	
381	F00077	ADDRESS. HEX LOCATION(00002540) IN CSECT(I4002) LENGTH(1)	
389	F00084	ADDRESS. HEX LOCATION(0000258C) IN CSECT(I4002) LENGTH(1)	
756	GDEND	ADDRESS. HEX LOCATION(0000274A) IN CSECT(I4002) LENGTH(6)	
762	GOBCK	ADDRESS. HEX LOCATION(00002762) IN CSECT(I4002) LENGTH(4)	
456	HTOE	ABSOLUTE. HEX VALUE(0000001A)	
608	IAR	ADDRESS. HEX LOCATION(00002670) IN CSECT(I4002) LENGTH(2)	
555	IBIT	ADDRESS. HEX LOCATION(0000260A) IN CSECT(I4002) LENGTH(1)	
547	IDCB	ADDRESS. HEX LOCATION(000025BA) IN CSECT(I4002) LENGTH(2)	
610	IDCBX	ADDRESS. HEX LOCATION(0000267C) IN CSECT(I4002) LENGTH(2)	
556	INTIN	ADDRESS. HEX LOCATION(0000260C) IN CSECT(I4002) LENGTH(2)	
731	ISS01	ADDRESS. HEX LOCATION(00002726) IN CSECT(I4002) LENGTH(6)	
37	I4002	CSECT. START(00002500) LENGTH(732) ESDID(1)	
558	LSB	ADDRESS. HEX LOCATION(0000260E) IN CSECT(I4002) LENGTH(2)	
779	MACHK	ADDRESS. HEX LOCATION(00002766) IN CSECT(I4002) LENGTH(4)	
570	MCK	ABSOLUTE. HEX VALUE(0000000A)	
560	MCKCD	ADDRESS. HEX LOCATION(00002624) IN CSECT(I4002) LENGTH(2)	
613	MCMND	ADDRESS. HEX LOCATION(00002686) IN CSECT(I4002) LENGTH(2)	
602	MCMSG	ADDRESS. HEX LOCATION(00002642) IN CSECT(I4002) LENGTH(14)	
561	MCPSW	ADDRESS. HEX LOCATION(00002626) IN CSECT(I4002) LENGTH(2)	
339	N00001	ADDRESS. HEX LOCATION(00002518) IN CSECT(I4002) LENGTH(2)	
342	N00002	ADDRESS. HEX LOCATION(0000251C) IN CSECT(I4002) LENGTH(2)	
345	N00003	ADDRESS. HEX LOCATION(00002520) IN CSECT(I4002) LENGTH(2)	
357	N00004	ADDRESS. HEX LOCATION(00002532) IN CSECT(I4002) LENGTH(2)	
359	N00005	ADDRESS. HEX LOCATION(00002534) IN CSECT(I4002) LENGTH(2)	
430	OUT	ABSOLUTE. HEX VALUE(00000000)	
101	PARMARA	ADDRESS. HEX LOCATION(0000196E) IN CSECT(I4002) LENGTH(1)	
563	PARM1	ADDRESS. HEX LOCATION(00002628) IN CSECT(I4002) LENGTH(2)	
564	PARM2	ADDRESS. HEX LOCATION(0000262A) IN CSECT(I4002) LENGTH(2)	
565	PARM3	ADDRESS. HEX LOCATION(0000262C) IN CSECT(I4002) LENGTH(2)	
582	PDATA	ADDRESS. HEX LOCATION(00002635) IN CSECT(I4002) LENGTH(1)	
548	PGMID	ADDRESS. HEX LOCATION(000025BE) IN CSECT(I4002) LENGTH(2)	
69	PID	ADDRESS. HEX LOCATION(00001800) IN CSECT(I4002) LENGTH(1)	
579	PREPR	ADDRESS. HEX LOCATION(00002632) IN CSECT(I4002) LENGTH(1)	
580	PRPDA	ADDRESS. HEX LOCATION(00002633) IN CSECT(I4002) LENGTH(1)	
606	PSW	ADDRESS. HEX LOCATION(00002664) IN CSECT(I4002) LENGTH(2)	
587	RDATA	ADDRESS. HEX LOCATION(00002639) IN CSECT(I4002) LENGTH(1)	
585	RDDA	ADDRESS. HEX LOCATION(00002637) IN CSECT(I4002) LENGTH(1)	
584	READ	ADDRESS. HEX LOCATION(00002636) IN CSECT(I4002) LENGTH(1)	
589	RST	ADDRESS. HEX LOCATION(0000263A) IN CSECT(I4002) LENGTH(1)	

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DECLARED	NAME	ATTRIBUTES AND REFERENCES
590	RSTDA	749 ADDRESS. HEX LOCATION(0000263B) IN CSECT(I4002) LENGTH(1)
545	RTNE	660 ADDRESS. HEX LOCATION(000025B6) IN CSECT(I4002) LENGTH(2)
690	RT01	649 690 745 ADDRESS. HEX LOCATION(000026D6) IN CSECT(I4002) LENGTH(6)
745	RT05	652 ADDRESS. HEX LOCATION(0000272E) IN CSECT(I4002) LENGTH(6)
696	RT101	713 715 ADDRESS. HEX LOCATION(000026F2) IN CSECT(I4002) LENGTH(4)
707	RT102	697 717 ADDRESS. HEX LOCATION(0000270E) IN CSECT(I4002) LENGTH(4)
0	R0	708 REGISTER. HEX VALUE(00000000) 651 656 657 658 659 660 661 662 663 664 665 666 701 702 703 711 759 760
0	R1	804 REGISTER. HEX VALUE(00000001) 696 707 800 803 805
0	R2	REGISTER. HEX VALUE(00000002) 710 712 714 801 803 806
0	R3	REGISTER. HEX VALUE(00000003) 667 711
0	R7	REGISTER. HEX VALUE(00000007) 648 703 704 780 802 807
567	SAVER	ADDRESS. HEX LOCATION(0000262E) IN CSECT(I4002) LENGTH(2) 651 654 759
568	SDCP	ADDRESS. HEX LOCATION(00002630) IN CSECT(I4002) LENGTH(2) 665 758
604	STEP	ADDRESS. HEX LOCATION(00002658) IN CSECT(I4002) LENGTH(2) 783
71	STEPNUM	ADDRESS. HEX LOCATION(0000180C) IN CSECT(I4002) LENGTH(1) 782 804
544	TUID	ADDRESS. HEX LOCATION(000025B4) IN CSECT(I4002) LENGTH(2) 667
98	TURESUL	ADDRESS. HEX LOCATION(000018C8) IN CSECT(I4002) LENGTH(1) 756
648	T4002	ADDRESS. HEX LOCATION(00002688) IN CSECT(I4002) LENGTH(4) 347
596	WDATA	ADDRESS. HEX LOCATION(00002641) IN CSECT(I4002) LENGTH(1) 704
593	WRITE	ADDRESS. HEX LOCATION(0000263E) IN CSECT(I4002) LENGTH(1) 705
594	WRTDA	ADDRESS. HEX LOCATION(0000263F) IN CSECT(I4002) LENGTH(1) 661

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