

LOCTR OBJECT TEXT STMT SOURCE STATEMENT COPYRIGHT IBM CORP 1976
3 *****
4 *
5 * *** PREREQUISITES ***
6 *
7 * NONE
8 *
9 *****
10 *
11 * *** MODIFICATIONS ***
12 *
13 * CHANGES MADE TO CORRECT ERRORS FOUND WHILE IN TEST
14 *
15 *****
16 *
17 * *** REA'S INCORPORATED ***
18 *
19 * NONE
20 *
21 *****
22 *
23 * *** SPECIAL INSTRUCTIONS ***
24 *
25 * NONE
26 *
27 *****
28 *
29 * *** E. C. HISTORY ***
30 *
31 * DATE 02OCT78 DATE 10JAN79 DATE DATE
32 * E.C. 375102 E.C. 375222 E.C. E.C.
33 *
34 *****
35 * DEFINE CONSTANT AREA FOR PROGRAM I.D. U7AF0
36 *****
37 *
38 *****
39 * U7AF0 START X'1800' PROGRAM START ADDRESS
40 PID DC X'1800' PROGRAM NAME
41 DC X'0000' LEVEL
42 STADDR DC A(T7A95) START EXECUTION ADDRESS
43 DEVPT DC A(DEVTAB) POINTER TO DEV TABLE
44 RTNE DC A(0) ROUTINE NUMBER
45 CKPT DC A(0) CHECKPOINT NUMBER
46 DC 2A(0) OPTION WORD ONE AND TWO
47 DEVTAB DC X'0001' START OF DEVICE TABLE
48 DEVADD DC X'0000' DEVICE ADDRESS AND TYPE
49 ASSIGN DC XL8'00' DEVICE DEPENDENT DATA
50 TYP7A DC X'7A' DEVICE TYPE FOR THIS PROGRAM
51 @ETOH DC A(2) EBC TO HEX CONTROL BLOCK
52 @ETOH1 DC A(INAREA) FROM DATA ADDRESS
53 @ETOH2 DC A(DEVADD) TO DATA ADDRESS
54 DC X'00C0' CONTROL BYTE FOR OUTIN CONTROL BLOCK
55 @OUTIN DC A(MSG) ADDRESS OF MESSAGE
56 DC A(INAREA) ADDRESS OF INPUT AREA
57 DC A(2) LENGTH OF INPUT DATA
58 DC A(0) TYPE OF INPUT (EBC)
59 INAREA DC C' OUTIN INPUT AREA
60 DC X'7AF1' STOP CODE FOR REQUEST OF DEV. ADD.
61 MSG DC C'SECTOR ID MOVE, CYL64 TO SCATTER - ENTER DEV ADDR'
62 DC X'00'
63 * THE FOLLOWING DC'S APE TO SATISFY THE SERRS ROUTINE
64 TUMSGWTR DC A(@MSGWTR) ADDRESS OF ABORT MESSAGE WRITER
65 TUSTATUS DC A(0) DUMMY TU STATUS
66 TUNORK DC 128C' WORK AREA FOR ABORT PRINT BUFFER
67 @DCADD1 DC A(0) DUMMY POINTER
68 @DCADD2 DC A(0) DUMMY POINTER
69 SUPSTAT DC A(0) DUMMY STATUS AREA
70 @OUT1 DC X'0080' CONTROL BYTE FOR OUT CONTROL BLOCK
71 @OUT DC A(0) ADDRESS OF MESSAGE
72 DC X'7AF2' STOP CODE FOR ABORT MESSAGE
73 ABMSG DC X'0000' DUMMY ABORT MESSAGE
74 *****
75 * THE FOLLOWING ROUTINE WILL OUTPUT ***ABORT*** MSG
76 *****
77 @MSGWTR MVW DC2PT,R1 ADDRESS OF MESSAGE AREA
78 ABI TWO,R1 POINT R1 AT FIRST LINE LENGTH
79 MVWZ (R1)+,R2 LOAD R2 WITH LENGTH
80 MVW R1,@OUT MOVE ADDRESS OF MESSAGE INTO BLOCK
81 MVWI X'C6F2',PID+2 LOAD PID WITH X'F2' STOP CODE
82 MVA @OUT,R7 LOAD ADDRESS OF CONTROL BLOCK
83 SVC OUT ISSUE SVC
84 ABI EIGHT,R1 BUMP P1
85 MVWZ BUFPT,R2 ZERO END OF DATA AREA
86 MSGWTR1 MVWI EIGHT,R4 INIT R4 TO LINES OF OUTPUT
87 MVWZ (R1)+,R2 LOAD LENGTH OF MESSAGE
88 MVA R1,@OUT LOAD ADDRESS OF MESSAGE INTO BLOCK
89 MVA @OUT,R7 LOAD ADDRESS OF BLOCK
90 SVC OUT ISSUE SVC
91 ABI X'28',R1 BUMP TO NEXT LINE
92 JCT MSGWTR1,R4 PRANCH FOR COUNT
93 MVWI X'00C0',@OUT1 CHANGE CONTROL BYTE
94 MVA ABMSG,@OUT LOAD ADDRESS OF ABORT MESSAGE
95 MVA @OUT,R7 LOAD ADDRESS OF CONTROL BLOCK
96 SVC OUT ISSUE SVC
97 B \$CONX BRANCH TO END
98 *
99 *
100 PDIT 00
102+OPTN1 DC X'0000' PROGRAM OPTION CONTROL WORD 1
103+*
104+OPTN2 DC X'0000' PROGRAM OPTION CONTROL WORD 2
105+* BIT HEX
106+B48 EQU 16 0 8 PROBLEM PROGRAM CONTROL BITS
107+B49 EQU 17 1 4 *
108+B50 EQU 18 2 2 * THESE BITS ARE USED WITH THE
109+B51 EQU 19 3 1 * SECOND OPTION WD AND ARE TO
110+B52 EQU 20 4 8 * BE ASSIGNED BY EACH PROGRAMMER
111+B53 EQU 21 5 4 *
112+B54 EQU 22 6 2 *
113+B55 EQU 23 7 1 *
114+B56 EQU 24 8 8 *
115+B57 EQU 25 9 4 *
116+B58 EQU 26 10 2 *
117+B59 EQU 27 11 1 *
118+B60 EQU 28 12 8 *

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119+B61 EQU 29 13 4 *
120+B62 EQU 30 14 2 *
121+B63 EQU 31 15 1 *
122+CH EQU 30 14 2 CHARACTER SUPPLIED
123+CMP EQU 31 15 1 COMPARE OPERATION
001944 0000 125+OPTN3 DC X'0000' PROGRAM OPTION CONTROL WORD 3
126+*
127+* 0 MYSTERY INTERRUPT MI 8 CS STATUS IN PROGRESS CS
128+* 1 ERROR INTERRUPT ER 9 CS AVAILABLE CSA
129+* 2 EXPECTED INTERRUPT XI 10 CS STATUS INTERRUPT ERR CE
130+* 3 INTERRUPT RECEIVED IN 11 ISB BITS ON (1-7) ISBON
131+*
132+* 4 EXPECTED ERR/ATTENT XE 12 TEST UNIT RESULTS VOID NG
133+* 5 HARD ERROR FOUND HE 13 OIO CC ERROR IOCC
134+* 6 WRONG INTR LEVEL \$LE 14 NO INTERRUPT NOIN
135+* 7 NO INTR EXPECTED NI 15 INTERRUPT CC ERROR INCC
136+* BIT HEX
000020 137+MI EQU 32 0 8 MYSTERY INTERRUPT HAPPENED
000021 138+ER EQU 33 1 4 ERROR RECEIVED ON INTERRUPT
000022 139+XI EQU 34 2 2 EXPECTED INTERRUPT CONTROL BIT
000023 140+IN EQU 35 3 8 INTERRUPT RECEIVED CONTROL BIT
000024 141+XE EQU 36 4 8 EXPECTED ERROR RESPONSE
000025 142+HE EQU 37 5 4 HARD ERROR 8 RETRIES
000026 143+\$LE EQU 38 6 2 INTERRUPT ON WRONG LEVEL ERROR
000027 144+NI EQU 39 7 1 NO INTERRUPT EXPECTED E
000028 145+CS EQU 40 8 8 CYCLE STATUS IN PROGRESS
000029 146+CSA EQU 41 9 4 CYCLE STEAL AVAILABLE
00002A 147+CE EQU 42 10 2 CYCLE STEAL STATUS INERRRUPT ERROR
00002B 148+ISBON EQU 43 11 1 ISB BITS ON (1-7)
00002C 149+NG EQU 44 12 8 TEST UNIT RESULTS NO GOOD
00002D 150+IOCC EQU 45 13 4 OIO CC ERROR
00002E 151+NOIN EQU 46 14 2 NO INTERRUPT
00002F 152+INCC EQU 47 15 1 INTERRUPT CC ERROR
153+*
154+* COMMON BUFFER FOR PRINTING DATA
155+*
157+STUID DC A(*-*) TEST UNIT IDENTIFICATION
158+SIOIN DC A(*-*) I/O AND INTR CONDITION CODES
159+SISB DC A(*-*) R7, INTR STATUS BYTE & DEV ADRS
160+LSTIO DC A(*-*) ADRS OF LAST I/O + 4 BYTES
161+DEV1 DC A(*-*) DEVICE DEPENDENT DATA
162+DEV2 DC A(*-*) *
163+DEV3 DC A(*-*) *
164+DEV4 DC A(*-*) *
165+SCTID EQU DEV1 CS STATUS ERROR ISB & INTR CC
166+DCBUF EQU * READ ID BUFFER FOR IBIS & TERN
167+DCB1 DC A(*-*) DCB BUFFER FOR LAST DCB USED
168+DCB2 DC A(*-*) LAST DCB TABLE, CONTROL WORD
169+DCB3 DC A(*-*) LAST DCB TABLE, DEV DEP WORD
170+DCB4 DC A(*-*) LAST DCB TABLE, DEV DEP WORD
171+DCB5 DC A(*-*) LAST DCB TABLE, DEV DEP WORD
172+DCB6 DC A(*-*) LAST DCB TABLE, CHAIN ADRS
173+DCB7 DC A(*-*) LAST DCB TABLE, BYTE COUNT
174+DCB8 DC A(*-*) LAST DCB TABLE, BUFFER ADDRESS
175+*
176+CSBUF EQU * CYCLE STEAL DATA BUFFER
177+CSTL1 DC A(*-*) CS STATUS WD 0, RESIDUAL ADDRESS
178+CSTL2 DC A(*-*) CS STATUS WD 1, RESIDUAL COUNT
179+CSTL3 DC A(*-*) CS STATUS WD 2, RETRY CNT WD 1
180+CSTL4 DC A(*-*) CS STATUS WD 3, RETRY CNT WD 2
181+CSTL5 DC A(*-*) CS STATUS WD 4, ERROR STATUS WD 1
182+CSTL6 DC A(*-*) CS STATUS WD 5, ERROR STATUS WD 2
183+CSTL7 DC A(*-*) CS STATUS WD 6, LAST DCB ADDRESS
184+CSTL8 DC A(*-*) CS STATUS WD 7, PREVIOUS HD/CYL
185+CSTL9 DC A(*-*) CS STATUS WD 8, CURRENT HD/CYL
186+CSTL10 DC A(*-*) CS STATUS WD 9, FLAG/SECTOR
187+CSTL11 DC A(*-*) CS STATUS WD 10, HEAD/CYLINDER
188+CSTL12 DC A(*-*) CS STATUS WD 11, DIAG BYTES 1, 2
189+CSTL13 DC A(*-*) CS STATUS WD 12, AND 3 + WRAP BYTE
190+*
191+SSUBN DC A(*-*) LAST SUBROUTINE ADDRESS USED
192+SDATA DC 2A(*-*) OPTIONAL DATA
193+INTL DC X'0021' INTERRUPT LEVEL REQUESTED
194+TURTN DC A(*-*) TEST UNIT RETURN ADRS TO MDI
195+\$DVID DC X'00' DEVICE ID
196+\$VCAL DC A(DEVADD) ADRS OF DEVICE ADDRESS
197+ DC A(*-*) IBIS CYLINDER ADDRESS
198+*
199+* THIS TEST UNIT WILL RETURN TO MDI WITHOUT DOING ANY PROGRAM
200+* FUNCTION. THE RESULTS THAT WERE SET UP IN THE RESULTS AREA ARE
201+* STILL VALID BUT A DIFFERENT TEST IS TO BE PERFORMED.
202+*
203+T7A02 MVWI X'7A02',STUID SET UP TEST UNIT ID
204+ BXS (R7) RETURN TO MDI SUPR
205+*
206+*****
207+*
208+* EQUATED NAMES FOR SUPPORTED SVC'S
209+*
210+*****
211+OUT EQU 0 OUT SVC
212+OUTIN EQU 1 OUTIN SVC
213+IDLE EQU 2 IDLE SVC
214+ASCII EQU 3 HEX TO ASCII SVC
215+CHNGE EQU 4 CHANGE LEVEL SVC
216+PGMCK EQU 5 ALLOW RETURN ON PROGRAM CHECK SVC
217+EXIT EQU 6 EXIT SVC
218+TERM EQU 7 TERMINATE SVC
219+RESET EQU 8 RESET DEVICE SVC
220+RID EQU 9 READ ID SVC
221+START EQU 10 START CYCLE STEAL SVC
222+STCSS EQU 11 START CYCLE STEAL STATUS SVC
223+PREP EQU 12 PREPARE DEVICE SVC
224+READ0 EQU 13 READ WITH FUNCTION BIT 3 OFF SVC
225+READ1 EQU 14 READ WITH FUNCTION BIT 3 ON SVC
226+HSTAT EQU 15 READ STATUS SVC
227+WRIT0 EQU 16 WRITE WITH FUNCTION BIT 3 OFF SVC
228+WRIT1 EQU 17 WRITE WITH FUNCTION BIT 3 ON SVC
229+CTRL EQU 18 CONTROL SVC
230+RIBC EQU 19 RELEASE INTRUPT CONTROL BLOCK SVC
231+CICB EQU 20 CONNECT INTERRUPT CONTROL BLOCK SVC
232+HIO EQU 21 HALT ALL I/O
233+REQSD EQU 22 REQUEST USE OF DCP DISK SVC
234+REISD EQU 23 RELEASE USE OF DCP DISK SVC
235+HALT EQU 24 HALT SVC

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000019 236 ETOH EQU 25 EBCDIC TO HEX SVC (STRING)
00001A 237 HTOH EQU 26 HEX TO EBCDIC SVC (STRING)
00001B 238 ATOH EQU 27 ASCII TO HEX SVC (STRING)
00001C 239 HTOA EQU 28 HEX TO ASCII SVC (STRING)
00001D 240 ETOA EQU 29 EBCDIC TO ASCII SVC (STRING)
00001E 241 ATOE EQU 30 ASCII TO EBCDIC SVC (STRING)
00001F 242 READI EQU 31 READ DATA SETS FOR MDI/UTIL
000020 243 WRITII EQU 32 WRITE DATA SETS FOR UTIL
244 *****
245 *
246 * EQUATES USED BY TU'S AS CONSTANTS *
247 *
248 *****
249 PLUS EQU C'+ ' PLUS CHAR
250 MINUS EQU C'- ' MINUS CHAR
251 ZERO EQU 0 VALUE OF 0
252 ONE EQU 1 1
253 TWO EQU 2 2
254 THREE EQU 3 3
255 FOUR EQU 4 4
256 FIVE EQU 5 5
257 SIX EQU 6 6
258 SEVEN EQU 7 7
259 EIGHT EQU 8 8
260 NINE EQU 9 9
261 TEN EQU 10 10
262 ELEVN EQU 11 11
263 TWELV EQU 12 12
264 THRRTN EQU 13 13
265 FIVTN EQU 15 15
266 SIXTY2 EQU 32 32
267 THY74 EQU 64 64
268 SIXTY4 EQU 128 128
269 ONE28 EQU 256 256
270 TWO56 EQU 560 560
271 TULAST EQU 1024 1024
272 ONEK EQU 2048 2048
273 TWOK EQU 3072 3072
274 THREEK EQU 4096 4096
275 FOURK EQU -1 -1
276 M1 EQU -2 -2
277 M2 EQU -3 -3
278 M3 EQU -4 -4
279 M4 EQU -4 -4
280 *****
281 *
282 * THE FOLLOWING ARE EQUATES FOR BIT DISPLACEMENTS FROM THE *
283 * BEGINNING OF THE BYTE TO EACH BIT IN THE WORD OF SWITCHES. *
284 *
285 *****
286 BS0 EQU 0
287 BS1 EQU 1
288 BS2 EQU 2
289 BS3 EQU 3
290 BS4 EQU 4
291 BS5 EQU 5
292 BS6 EQU 6
293 BS7 EQU 7
294 BS8 EQU 8
295 BS9 EQU 9
296 BS10 EQU 10
297 BS11 EQU 11
298 BS12 EQU 12
299 BS13 EQU 13
300 BS14 EQU 14
301 BS15 EQU 15
302 ** (T78DCB)
303 *****
304 *
305 * DCB TABLES AND DC'S *
306 *
307 *
308 *****
309 *
310 ***** DIAGNOSTIC DCB *****
311 *
312 DGDCB DC X'201E' READ DIAGNOSTIC DATA REC #1
313 DC X'0000' FLAG/SECTOR
314 DC X'0000' HEAD/CYLINDER
315 DC X'0000' SCAN COUNT
316 DC A(RSBA) RSB ADDRESS
317 DC A(*-*) CHAIN ADDRESS
318 DC X'0100' BYTE COUNT
319 DC A(*-*) DATA ADDRESS
320 *
321 *
322 ***** RECALIBRATE DCB *****
323 *
324 CLDCB DC X'0001' RECALIBRATE DCB
325 DC 7A(*-*)
326 *
327 ***** WRITE SECTOR ID **
328 *
329 WSDCB DC X'002D' WRITE SECTOR ID WITH VERIFY
330 DC X'0000' FLAG/SECTOR
331 DC X'0000' HEAD/CYLINDER
332 DC X'0000' SCAN COUNT
333 DC A(RSBA) RSB ADDRESS
334 DC A(*-*) CHAIN ADDRESS
335 DC X'0004' BYTE COUNT
336 DC A(WRSID) ADDR OF SECTOR ID DATA
337 ***** READ SECTOR ID DCB *****
338 *
339 RSDCB DC X'2014' READ SECTOR ID - AUTO SEEK
340 DC X'0000' FLAG/SECTOR
341 DC X'0000' HEAD/CYLINDER
342 DC X'0000' SCAN COUNT
343 DC A(RSBA) RSB ADDRESS
344 DC X'0000' CHAIN ADDRESS
345 DC X'0004' BYTE COUNT FOR READ SECTOR ID
346 DC A(SCTID) SECTOR ID DATA ADDRESS
347 *
348 *
349 ***** WRITE DATA RECORDS/RD VERIFY *****
350 *

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0019D8 0021 351 WRDCB DC X'0021' WRITE DATA CONTROL WORD
0019DA 0000 352 DC X'0000' FLAG/SECTOR
0019DC 0000 353 DC X'0000' HEAD/CYLINDER
0019DE 0000 354 DC X'0000' RECORD COUNT
0019E0 34CA 355 DC A(RSBA) RSB ADDRESS
0019E2 0000 356 DC A(*-*) CHAIN ADDRESS
0019E4 0100 357 DC X'0100' BYTE COUNT FOR ONE SECTOR OF DATA
0019E6 0000 358 DC A(*-*) SECTOR ID DATA ADDRESS
359 *
360 *
361 ***** SEEK DCB *****
362 *
363 SKDCB DC X'0000' SEEK DCB
364 DC X'0000' FLAG/SECTOR
365 DC F'0' HEAD/CYLINDER
366 DC F'0' SCAN COUNT
367 DC A(RSBA) RSB ADDRESS
368 DC A(*-*) CHAIN ADDRESS
369 DC F'0' NOT USED
370 DC F'0' NOT USED
371 *
372 ***** CYCLE STEAL STATUS DCB *****
373 *
374 CSDCB DC X'2000' CONTROL WORD
375 DC F'0' NOT USED
376 DC F'0' NOT USED
377 DC F'0' NOT USED
378 DC F'0' NOT USED
379 DC F'0' NOT USED
380 DC X'001A' 13 WORDS OF STATUS
381 DC A(CSBUF) ADDRESS OF CYCLE STEAL STATUS DATA
382 *
383 ***** WRITE ID MULTIPLE *****
384 *
385 WMDCB DC X'002D' WRITE CONTROL WORD
386 DC X'0000' FLAG/SECTOR
387 DC X'0000' HEAD/CYLINDER
388 DC X'0000' SCAN COUNT
389 DC A(RSBA) RSB ADDRESS
390 DC A(*-*) CHAIN ADDRESS
391 DC X'0084' BYTE COUNT
392 DC A(*-*) WRITE DATA ADDRESS
393 *
394 ***** READ MULTIPLE ID *****
395 *
396 RMDCB DC X'2014' CONTROL WORD - AUTO SEEK
397 DC F'0' FLAG/SECTOR
398 DC X'0000' HEAD/CYLINDER
399 DC X'0000' SCAN COUNT
400 DC A(RSBA) RSB ADDRESS
401 DC A(*-*) CHAIN ADDRESS
402 DC X'0084' BYTE COUNT
403 DC A(FSTID) READ DATA ADDRESS
404 *
405 ***** READ DATA *****
406 *
407 RDDCB DC X'2018' READ DCB CONTROL WORD
408 DC F'0' FLAG/SECTOR
409 DC X'0000' HEAD/CYLINDER
410 DC X'0000' SCAN COUNT
411 DC A(RSBA) RSB ADDRESS
412 DC A(*-*) CHAIN ADDRESS
413 DC X'0100' BYTE COUNT
414 DC A(DATA) READ DATA ADDRESS
415 *
416 ***** WRITE SECTOR ID SKEWED WITH VERIFY ****
417 *
418 WKDCB DC X'002F' CONTROL WORD
419 DC X'0000' FLAG/SECTOR
420 DC X'0000' HEAD/CYLINDER
421 DC X'0000' SCAN COUNT
422 DC A(RSBA) RSB ADDRESS
423 DC A(*-*) CHAIN ADDRESS
424 DC X'0004' BYTE COUNT
425 DC A(WRSID) ADDR OF SECTOR ID DATA
426 *
427 ***** READ SECTOR ID SKEWED WITH VERIFY ****
428 *
429 RKDCB DC X'2015' CONTROL WORD - AUTO SEEK
430 DC X'0000' FLAG/SECTOR
431 DC X'0000' HEAD/CYLINDER
432 DC X'0000' SCAN COUNT
433 DC A(RSBA) RSB ADDRESS
434 DC A(*-*) CHAIN ADDRESS
435 DC X'0004' BYTE COUNT FOR READ SECTOR ID
436 DC A(SCTID) SECTOR ID DATA ADDRESS
437 *
438 ***** CONSTANTS AND DEFINED STORAGE LOCATIONS
439 ZERO DC X'0000' CONSTANT ZERO
440 RAY DC A(*-*) WRITE PARAMETER POINTER
441 LGSEC DC X'0000' LOGICAL SECTOR #
442 PHYSC DC X'0000' CONVERTED PHYSICAL SEC #
443 WRSID DC X'0000' FLAG,SECTOR (WRT SECTOR ID DATA)
444 DC X'0000' HEAD,CYLINDER
445 *
446 *****
447 * EXECUTE INPUT & OUTPUT COMMANDS *
448 * TO EXECUTE ALL I/O COMMANDS FROM A COMMON PLACE. *
449 * EACH OF THESE ENTRIES SET R7 WITH THE ADRS OF ITS PARAMETER *
450 * LIST AND ANY SPECIAL SWITCHES BEFORE BRANCHING TO THE *
451 * SUPVR CALL. *
452 *
453 * THIS SUBROUTINE WILL CHECK FOR THE FOLLOWING: *
454 *
455 * 1. LOST INTERRUPTS BY TIMING OUT A COUNTING LOOP *
456 *
457 * 2. ERROR INTERRUPTS RECEIVED FROM SUPVR *
458 *
459 * THIS ROUTINE HAS THE FOLLOWING ENTRIES: *
460 *
461 * 1 BAL \$RKEW,R6 READ SECTOR ID SKEWED
462 *
463 * 9 BAL XIOCS,R6 CYCLE STEAL STATUS
464 *
465 * 10 BAL \$SEEK,R6 SEEK *

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466 * BAL \$RECL,R6 RECALIBRATE
467 * 11 BAL \$RDID,R6 READ SECTOR ID
468 * 12 BAL \$RDID,R6 READ SECTOR ID
470 *
471 *
001A64 4020 1BD2 19E8 472 \$SEEK MVA SKDCB,IODCB SET UP CONTROL PLOCK FOR SVC CALL
001A6A 502A 473 J XIO
474 *
001A6C 4020 1BD2 19A8 475 \$RECL MVA CLDCB,IODCB SET UP BLOCK FOR SVC CALL
001A72 5026 476 J XIO
477 *
001A74 4020 1BD2 19C8 478 \$RDID MVA RSDCB,IODCB SET UP BLOCK FOR SVC CALL
001A7A 5003 479 J SCT1 SETUP READ SECTOR ID BUFFER ADRS
480 *
001A7C 4020 1BD2 1A48 481 \$RKEW MVA RKDCB,IODCB SET UP CONTROL BLOCK FOR SVC CALL
001A82 0BFF 482 SCT1 MVB X'FFF',R3 SET BUFFER TO F'S
001A84 4524 194E 483 MVA SCTID,R5 SETUP READ SECTOR ID BUFFER ADRS
001A88 4724 0004 484 MVI 4,R7 SETUP BUFFER LENGTH
001A8C 2BAC 485 JFN R3,(R5) INIT READ SECTOR ID BUFFER
001A8E 5018 486 J XIO
487 *
001A90 4020 1BD2 19B8 488 \$WSEC MVA WSDCB,IODCB SET UP BLOCK FOR SVC CALL
001A96 4020 19C6 1A60 489 MVA WRSID,WSDCB+14 SETUP WRITE ID DATA BUFFER ADDR
001A9C 5011 490 J XIO
491 *
001A9E 4020 1BD2 1A38 492 \$WKEW MVA WKDCB,IODCB SET UP CONTROL BLOCK FOR SVC CALL
001AA4 4020 1A46 1A60 493 MVA WRSID,WKDCB+14 SEUP WRITE ID DATA BUFFER ADDR
001AAA 500A 494 J XIO
495 *
001AAC 4020 1BD2 1A18 496 \$RDIM MVA PNDCE,IODCB SET UP CONTROL BLOCK FOR SVC CALL
001AB2 0BFF 497 MVB X'FFF',R3 SET BUFFER TO F'S
001AB4 4524 2E12 498 MVA ID00,R5 SETUP RPAD SECTOR ID BUFFER ADRS
001AB8 4724 0084 499 MVI 132,R7 SETUP BUFFER LENGTH
001ABC 2BAC 500 JFN R3,(R5) INIT READ SECTOR ID BUFFER
001ABE 5000 501 J XIO
502 COPY T7AXEQ
503 PRINT OFF
1067 T7AXEQ
1068 *****29JUL76**
1069** SUB-ROUTINE
1070** EXECUTE INPUT AND OUTPUT COMMANDS
1071**
1072** EXECUTE INPUT AND OUTPUT COMMANDS
1073**
1074** PURPOSE
1075**
1076** TO EXECUTE ALL I/O COMMANDS FROM A COMMON PLACE.
1077** THIS SUBROUTINE WILL DO THE FOLLOWING FUNCTIONS:
1078**
1079** 1. SAVE THE ADDRESS THAT POINTS TO THE INSTRUCTION THAT STARTED
1080** THE I/O COMMAND.
1081**
1082** 2. SAVES THE DCB BLOCK USED UNLESS IT IS A START CYCLE STATUS
1083** ISSUED BY THIS SUBROUTINE.
1084**
1085** 3. CLEAR OUT THE CYCLE STEAL STATUS STORAGE UNLESS THE
1086** START CYCLE STATUS WAS ISSUED BY THIS SUBROUTINE.
1087**
1088** 4. RESETS THE INTERRUPT INDICATOR AND CHECKS FOR AN INTERRUPT
1089** SINCE THE LAST EXPECTED INTERRUPT. IF AN INTERRUPT IS FOUND,
1090** MYSTERY INTERRUPT (MI) CONTROL BIT IS SET.
1091**
1092** 5. MOVES THE ADDRESS OF THE I/O CONTROL BLOCK IN R7, SET THE
1093** EXPECTED INTERRUPT CONTROL BIT AND ISSUE THE 'SVC START'.
1094**
1095** 6. WHEN THE SUPVR RETURNS AFTER ISSUING THE I/O COMMAND, TIMING
1096** STARTS TO DETERMINE A LOST INTERRUPT.
1097**
1098** 7. EXCEPT THE INTERRUPT AND GATHER INFORMATION TO DETERMINE IF IT
1099** WAS AN ERROR OR OKAY AND EXIT OFF THE INTERRUPT LEVEL.
1100**
1101** 8. CHECK IF THERE WAS A WRONG INTERRUPT LEVEL.
1102**
1103** 9. CHECK IF AN ERROR WAS EXPECTED AND IF THERE WAS RETURN.
1104**
1105** 10. CHECK IF THERE WAS AN ERROR CONDITION, IF NOT RETURN.
1106**
1107** 11. CHECK TO SEE IF THE EXERCISER IS TO BE TERMINATED.
1108**
1109** 12. CHECK IF A CYCLE STEAL OPERATION WAS IN PROGRESS THAT WAS
1110** ISSUED BY THIS SUBROUTINE.
1111**
1112** 13. CHECK THE ISB BITS THAT ARE ON. IF BIT 0 IS ON, ISSUE A
1113** CYCLE STEAL STATUS COMMAND. CHECK FOR ANY OTHER BIT BEING ON,
1114** COUNT IT AND SET UP THE PROPER ERROR MESSAGE TO BE PRINTED.
1115**
1116** CALLING SEQUENCE
1117** THIS ROUTINE HAS THE FOLLOWING ENTRIES:
1118**
1119** --> BAL XIO OR XIO ANY CYCLE STEAL COMMAND, MOD=0
1120** --> BAL XIO1 MOD PARM PRELOADED IN 'IOMOD'
1121** --> BAL XIOCS,R6 OR XIO START CYCLE STEAL STATUS, MOD=F
1122** --> BAL XIOCS-4,R6 AUTO CS STATUS (FOLLOWING OTHER XIO
1123** AND DOES NOT POST INTERRUPT STATUS)
1124**
1125** RETURN CONTROL
1126** BXS (R6,2) RETURN TO USER NO ERROR
1127** OR B (R6)* RETURN AND REPLY ON ERROR
1128**
1129** XIO IOMOD,R3 SET MOD OF 0 FOR CYCLE STEAL OP
1130** J XIO1 CS I/O'S ARE NOT RETRIED
1131**
1132** XIODG MVI X'000F',IOMOD SET MODIFIER FOR DIAGNOSTIC OPS
1133** J XIO1 GO TO CS OPS
1134**
1135** TBTR (R4,CE) RESET CS STATUS INTER ERROR INDICAT.
1136** TBTS (R4,CS) SET 'CYCLE STEAL STATUS' IN PROGRESS
1137** XIOCS MVA CSDCB,IODCB SET UP CONTROL BLOCK FOR SVC CALL
1138** MVI X'000F',IOMOD SET CYCLE STEAL MODIFIER
1139** TBT (R4,CS) IS CS IN PROGRESS, ERROR CONDITION
1140** JON XIO2 * YES, BYPASS SAVING I/O ADRS
1141** MVI R6,LSTIO SAVE IAR FOR RETRY IF REQUESTED
1142** MVA DCBUF,R3 SET UP TO ADRS TO MOVE DCB TABLE
1143** MVI IODCE,P5 * AND THE FROM ADRS ALONG WITH
1144** MVB 26,R * THE NUMBER OF MOVES
1145** MVB (R5),(R3) MOVE 1 STATUS WORD AND ADJUST
1146** MVB 255,R3 CLEAR CYCLE STATUS BUFFER
1147** MVA CSBUF,R5 * TO ALL ONES *
1148** MVI 26,R7 *
1149** JFN R3,(R5) *
1150** MVI X'0708',SIOIN OVERLAY OLD CONDITION CODES
1151** MVI \$ISB,R3 ZERO OUT OLD ISB VALUE
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1144+ TBTR (R4,ER) RESET ANY ERROR BEFORE I/O COMMAND
1145+XIO2 TBTR (R4,IN) CLEAR INTERRUPT RECEIVED CNTL BIT
1146+ MVA IOBLK,R7 SET UP CONTROL BLOCK FOR SUPVR
1147+ TBTR (R4,SLE) RESET LEVEL ERROR INDICATOR
1148+ TBTS (R4,SII) SET EXPECTED INTR CONTROL BIT
1149+ SVC START CALL SUPVR FOR I/O COMMAND
1150**
1151+ TBTR (R4,NI) IS AN INTR EXPECTED
1152+ BN (R6,2) * NO, RETURN TO USER
1153**
1154** THE INTR SHOULD OCCUR WHILE SPINNING IN THE NEXT SECTION
1155**
1156+ MVWI 0,R5 SET UP WORK REG FOR 'LOST INTR'
1157+XIO8 TBTR (R4,IN) HAS INTERRUPT BEEN RECEIVED
1158+ JON XIOCK * YES, CHECK IF ALL WAS SATISFACTORY
1159+ SVC IDLE ALLOW ANOTHER PROGRAM A CHANCE TO RUN
1160** SUPVE WILL RETURN HERE
1161** SUPVR WILL RETURN HERE
1162** ADVANCE TIME OUT COUNT
1163+ AWI 1,R5 BCH IF TIME OUT NOT REACHED
1164+ JNZ XIO8 SET ON ERROR CONTROL BIT
1165+ TBTS (R4,ER) ERR 'NO INTERRUPT'
1166+ B (R6)*
1167*****03FEB76**
1168** SUBROUTINE
1169** I/O EXECUTE ERROR HANDLING ROUTINE
1170**
1171** PURPOSE
1172** THIS ROUTINE WILL COLLECT INFORMATION TO HELP DETERMINE THE
1173** PROBLEM THAT WAS FOUND WHEN THE I/O COMMAND WAS ISSUED BY THE
1174** SUPERVISOR AND IT WAS NOT ACCEPTED.
1175**
1176** CALLING SEQUENCE
1177** SUPVR WILL ENTER WHEN AN ERROR OCCURS ON AN I/O COMMAND
1178**
1179** RETURN CONTROL
1180** B (R6)* RETURN TO USERS ERROR HANDLER
1181**
1182** *****
1183**
1184** CC 0= DEVICE NOT ATTACHED
1185** FOR 1= DEVICE BUSY
1186** I/O 2= DEVICE BUSY AFTER RESET
1187** 3= COMMAND REJECT
1188** 4= INTERVENTION REQUIRED
1189** 5= INTERFACE DATA CHECK
1190** 6= CONTROLLER BUSY
1191** 7= I/O COMMAND EXCEPTED
1192**
1193** XIOER CPLSR R3 COPY STATUS ANY LEVEL INTO R3
1194** SET R3,R3 POSITION CC CODE TO BITS 13-15
1195** MVB R3,SIOIN * PUT IN LOG OUT AREA
1196** B (R6)* RETURN TO USER ERROR HANDLER
1197** *****14APR76**
1198** SUB-ROUTINE
1199** ERROR INTERRUPT RUNS ON INTERRUPT LEVEL 'SINTL'
1200**
1201** PURPOSE
1202** THIS ROUTINE WILL BE ENTERED WHEN THE SUPVR DETECTS AN ERROR
1203** OR THE INTERRUPTING CONDITION CODE DOES NOT AGREE WITH THE
1204** EXPECTED CODE.
1205**
1206** CALLING SEQUENCE
1207** SUPVR WILL ENTER WHEN AN ERROR OCCURS ON AN I/O INTERRUPT
1208**
1209** RETURN CONTROL
1210** SVC EXIT RETURN TO USER VIA SUPVR
1211**
1212** *****
1213**
1214** CC 0= CONTROLLER END ISB 0= ADD STATUS
1215** FOR 1= PROGRAM CONTROL INTERRUPT BITS 1= COND REJECT
1216** INTR 2= EXCEPTION INTERRUPT FOR 2= INCOR LENGTH
1217** 3= DEVICE END INTERRUPT INTR 3= DCB SPCC CK
1218** 4= ATTENTION INTERRUPT 4= STG DATA CK
1219** 5= ATTENTION / PROGRAM CNTL INTR 5= INV STG ADRS
1220** 6= ATTENTION / EXCEPTION INTR 6= PROTRCT CK
1221** 7= ATTENTION / DEVICE END INTR 7= I-FACE DATA
1222**
1223** XINTER CPLSR R3 COPY STATUS ANY LEVEL INTO R3
1224** SRL 13,R3 POSITION INDICATORS IN R3
1225** MVA OPN1,R4 SET UP BASE ADRS
1226** TBTR (R4,CS) IS CS IN PROGRESS
1227** JOPF INTES * NO
1228** TBTS (R4,CE) TURN ON CYCLE STEAL INTER ERROR
1229** MVB R7,DEV4 SAVE CS ERR ISB VALUE, BITS 0-7
1230** MVB R3,DEV4+1 * AND THE COND CODE
1231** J INTR1
1232** XINTES TBT (R4,XE) TEST EXPECTED ATTN / ERROR IND
1233** JOPF INTET BCH IF NOT EXPECTED
1234** CBI 4,R3 IS THIS 'ATTENTION' INTR
1235** JE INTR1 * YES, BCH TO END INTR SEQUENCE
1236** TBTS (R4,ER) SET ERROR ON I/O COMMAND CNTL BIT
1237** J INTR1
1238**
1239** THE ERROR INTERRUPT USES THE SAME IL
1240** ENDING SEQUENCE AS THE NORMAL INTR IL
1241** *****14APR76**
1242** SUBROUTINE
1243** OKAY INTERRUPT RUNS ON INTERRUPT LEVEL 'SINTL'
1244**
1245** PURPOSE
1246**
1247**
1248**
1249**
1250**
1251**
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1261** TO CHECK THE INTERRUPT AND CONTINUE THE TEST
1262**
1263** CALLING SEQUENCE
1264**
1265** SUPERVISOR WILL ENTER HERE IF INTR CC IS AS REQUESTED
1266** THE ERROR INTERRUPT HANDLER WILL BRANCH TO THIS ROUTINE
1267** AFTER THE SPECIAL PART HAS BEEN COMPLETED AND THE
1268** COMMON SECTION IS HANDLED HERE.
1269**
1270** RETURN CONTROL
1271**
1272** SVC EXIT RETURN TO USER VIA SUPVR
1273**
1274** *****
1275+INTOK CPLSR R3 COPY STATUS ANY LEVEL INTO R3
1276+ SRL 13,R3 POSITION INDICATORS IN R3
1277+ MVA OPTN1,R4 SET UP BASE ADRS
1278+INTR1 TBTS (R4,IN) SET INTERRUPT RECEIVED
1279+ TBT (R4,CS) IS 'CS IN PROGRESS' ON
1280+ JON INTR2 * YES, BCH AROUND UPDATE
1281+ MVB R3,\$IOIN+1 SAVE INTERRUPTING CC CODE
1282+ MVM R7,\$ISB SAVE INTR STATUS AND DEV ADRS
1283+INTR2 EQU *
1284+ CPEL R5 CURRENT LEVEL COPIED BY DCP
1285+ SLL 4,R5 POSITION INTR LEVEL AND PUT
1286+ ABI 1,R5 * IN '1' BIT
1287+ CW \$INTL,R5 IS THIS THE CORRECT INTR LEVEL
1288+ JE INTR3 * YES, GO EXIT THIS LEVEL
1289+ TBTS (R4,\$LE) SET INTR LEVEL ERROR CONTROL BIT
1290+ TBTS (R4,ER) SET ERROR ON I/O COMMAND CNTL BIT
1291+INTR3 TBTR (R4,XI) WAS INTERRUPT EXPECTED
1292+ JON INTRX * YES, EXIT OFF THIS INTR LEVEL
1293+ TBTS (R4,MI) * NO, SET MYSTERY INTR CONTROL BIT
1294+ CBI 4,R3 ATTENTION INTERRUPT?
1295+ JE INTRX YES
1296+ TBTS (R4,NG) ERROR UNEXPECTED INTERRUPT
1297+INTRX SVC R4,NG EXIT THIS LEVEL VIA SUPVR TO PGM
1299+*****03FEB76**
1301** THIS IS THE CONTINUATION OF EXECUTE I/O AFTER THE INTERRUPT
1302** HAS BEEN SERVICED. THE EXERCISER FINDS AN INTERRUPT HAS BEEN
1303** RECEIVED AND BRANCHES HERE TO CHECK FOR ANY ERROR CONDITIONS.
1304**
1305**
1306+XIOCK TBTR (R4,XE) WAS AN ERROR EXPECTED
1307+ BN (R6,2) * YES, EXIT THIS ROUTINE
1308+ TBTR (R4,CS) WAS AUTO CS IN PROGRESS
1309+ JOFF XIOCV * NO, CONTINUE CHECKING
1310+ TBT (R4,CE) IS CS IN AN ERR CONDITION
1311+ JOFF XIOCC * NO, BCH TO ERROR HANDLER
1312+ B (R6)* CS ERROR
1313+XIOCO TBTS (R4,CSA) TURN ON CS STATS AVAIL FLAG
1314+ BXS (R6,2) GO TO USER
1315+XIOCV TBT (R4,ER) WAS ERROR INTR CONTROL BIT ON
1316+ JOFF XIOCX * NO, EXIT THIS ROUTINE
1317**
1318+ MVB \$IOIN+1,R5 GET LAST INTR CC CODE
1319+ CBI 2,R5 IS THIS CC=2
1320+ JE XIOCV YES
1321+ CBI 6,R5 IS THIS CC=6
1322+ BNE (R6)* * NO, BCH TO ERROR HANDLER
1323+XIOCV MVB \$ISB,R5 GET LAST ISB DATA BYTE AND IF CS
1324+ BN XIOCS-4 * AVAILABLE, GO AND GET IT
1325+ B (R6)* ERROR
1326+XIOCV MVMZ OPTN3,R3 CLEAR OUT OPTION 3 CNTL BITS
1327+ BXS (R6,2) RETURN TO USER VIA REG 6
1328**
1329** I/O PARAMETER LIST
1330**
1331+TOBLK DC A(DEVADD) ADRS OF DEVICE ADRS
1332+ DC A(XIOER) ERROR ROUTINE ADRS
1333+TODCB DC A(**) DCB ADRS OR LEVEL & INTR
1334+TOMOD DC A(**) MODIFIER
1335+ DC A(**) ADRS OF LAST SVC CALL
1336+IORSF DC A(**) SECOND WORD OF LAST IDCB
1337**
1338** INTERRUPT CONTROL BLOCK FOR I/O COMMANDS
1339**
1340+INTBL DC A(DEVADD) ADRS OF DEVICE ADRS
1341+ DC A(INTOK) INTERRUPT OK RETURN ADRS
1342+ DC A(INTR) INTERRUPT ERROR ADRS
1343+INTCC DC X'0003' INTERRUPT CODE EXPECTED
1345*****11MAY76**
1346**
1347** SUBROUTINE
1348**
1349** CONNECT INTERRUPT CONTROL BLOCK & PREPARE DEVICE
1350**
1351** PURPOSE
1352**
1353** TO CONNECT THE INTERRUPT CONTROL BLOCK TO THIS DEVICE AND
1354** PREPARE ON THE DESIRED INTERRUPT LEVEL AND TO ALLOW THE DEVICE
1355** TO INTERRUPT.
1356**
1357** CALLING SEQUENCE
1358**
1359** THIS SUBROUTINE HAS THE FOLLOWING ENTRIES:
1360**
1361** --> BAL \$CONC,R6 CLEAR DEV DEP STG AND CONNECT I/O BLK
1362** --> BAL \$CONP,R6 PREPARE DEVICE ONLY, ALREADY CONNECT
1363**
1364** RETURN CONTROL
1365**
1366** BXS (R6,2) RETURN TO USER VIA REG 6 IF OKAY
1367** OR B (R6)* IF THE DEVICE COULD NOT BE CONNECTED
1368**
1369*****
1370+SCONC MVB 6,R7 NUMBER OF BYTE TO CLEAR
1371+ MVB 0,R3 * AND THE DATA TO USE
1372+ MVA DEV1,R5 * ALONG WITH THE ADRS TO USE
1373+ FPN R3,(R5) *
1374+ MVMZ OPTN3,R3 CLEAR OLD CONTROLS FOR NEW ROUTINE
1375+ MVA INTBL,R7 SET R7 TO CONTROL BLOCK AND
1376+ SVC CIBC * CONNECT IT TO THIS DEVICE

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001BF6 6AD0 0000 1377+ BN (R6)* ERROR RETURN TO USER
1378**
001BFA 8828 1986 1BD2 1379+\$CONP MVA \$INTL,IODCB PUT IN LEVEL & INTR PARAMETER
001C00 4724 1BCE 1380+ MVA IOBLK,R7 SET R7 TO CONTROL BLOCK TO PREPARE
001C04 4020 1948 0708 1381+ MVMZ X'0708', \$IOIN INITIALIZE CONDITION CODE STORAGE
001C0A CB25 194A 1382+ MVMZ \$ISB,R3 * AND CLEAR OLD ISB VALUE
001C0E 6E0D 194C 1383+ MVM R6,LS1IO SET UP ADDRESS THAT STARTED LAST I/O
001C12 600C 1384+ SVC PREP * AND CALL ON SUPVR
001C14 5601 1385+ BXS (R6,2) RETURN TO USER
1387+*****06APR76**
1388**
1389** SUBROUTINE
1390**
1391** DISCONNECT THE INTERRUPT CONTROL BLOCK AND LOG ERRORS
1392**
1393** PURPOSE
1394**
1395** DISCONNECT THE INTERRUPT CONTROL BLOCK TO THIS DEVICE AND
1396** SET THE 'NO GOOD' CONTROL BIT, THEN LOG THE DATA THAT HAS
1397** BEEN FOUND TO HELP THE OPERATOR DEFINE THE ERROR CONDITION.
1398**
1399** CALLING SEQUENCE
1400**
1401** THIS SUBROUTINE HAS THE FOLLOWING ENTRIES:
1402**
1403** --> B \$ERR\$ SET 'NG' BIT AND CONVERT DATA TO LOG
1404** --> B \$CONX RETURN TO MDI SUPERVISOR TO TEST STS
1405**
1406** RETURN CONTROL
1407**
1408** B TURTN* RETURN TO MDI
1409** OR B (R6)* IF THE DEVICE COULD NOT BE CONNECTED
1410**
1411*****
1412+\$ERR\$ MVMZ X'8000',TUSTATUS SET ON 'NO GOOD' STATUS BIT
1413+ MVA HEBLK,R7 SECT ADRS OF CONTROL BLOCK
1414+ SVC TIOE CONVERT HEX TO EBC VIS DCP
1415+ MVMZ X'4040',TWORK+116
1416+ MVMZ X'4040',TWORK+118
1417+ MVMZ X'4040',TWORK+120
1418+\$PRNT MVB 4,R5
1419+ MVA TWORK,R3 SET UP BUFFER STORAGE
1420+ MVM R3,BUFPT
1421+ MVA LINE1,R1
1422+ MVB 4,R7
1423+ MVB 8,R6
1424+MVBUF MVMZ (R3),(R1)
1425+ MVB 4,R7
1426+ MVB X'40',R2
1427+ MVB R2,(R1)*
1428+ JCT MVBUF,R6
1429+ MVB 8,R6
1430+ AWI 44,R1
1431+ JCT MVBUF,R5
1432+ MVMZ PIDMSG10,PID+2
1433+ MVA FAKETU,@DCADD1
1434+ MVA DC2PT,@DCADD2
1435+ OWI BIT0080,SUPSTAT
1436+ MVA STUID,R3
1437+ MVB (R1)*
1438+ BAL TUMSGWTR,R7 SET UP BUFFER STORAGE
GO TO MESSAGE WRITER
1439+\$CONX EQU *
1440+ MVB DEVADD,R7 GET DEVICE ADDRESS FROM MDI
1441+ SVC RIBC RELEASE INTERRUPT CONTROL BLOCK
1442+ B TURTN* RETURN TO MDI SUPERVISOR
1443**
1444+BEGIN DC A(0009) NUMBER OF LINES TO PRINT
1445+ DC A(0008) LINE LENGTH = 8 CHAR
1446+ DC C'*** ABORT'
1447+ DC A(0040) LINE LENGTH = 40 CHAR
1448+ DC C'TUID IOIN ISB INST SECT ID DATA CSCC '
1449+ DC A(0040) LINE LENGTH = 40 CHAR
1450+LINE1 DC A(0040) LINE LENGTH = 40 CHAR
1451+ DC C'CNTRL DCB1 DCB2 DCB3 DCB4 CHAD BYCT ADRS '
1452+ DC A(0040) LINE LENGTH = 40 CHAR
1453+ DC C'CS-0 CS-1 CS-2 CS-3 CS-4 CS-5 CS-6 CS-7 '
1454+LINE2 DC A(0040) LINE LENGTH = 40 CHAR
1455+ DC C'CS-8 CS-9 CS-A CS-B CS-C '
1456+ DC A(0040) LINE LENGTH = 40 CHAR
1457+ DC C'
1458+LINE3 DC A(0040) LINE LENGTH = 40 CHAR
1459+ DC C'
1460+ DC A(0040) LINE LENGTH = 40 CHAR
1461+ DC C'
1462+LINE4 DC A(0040) LINE LENGTH = 40 CHAR
1463**
001DDE 0000 1464+BUFPT DC A(**)
001DE0 1C82 1465+DC2PT DC A(BEGIN)
001DE2 0101 1466+FIXTU DC X'0101'
001DE4 0101 1467+FAKETU DC X'0101'
00F1F0 1468+PIDMSG10 EQU X'F1F0'
000080 1469+BIT0080 EQU X'0080'
1470**
1471** DATA CONTROL BLOCK FOR CONVERTING HEX TO EBCDIC
1472**
1473+HEBLK DC A(58) NUMBER OF BYTES TO CONVERT
1474+ DC A(STUID) FROM ADRS
1475+ DC A(TWORK) AND THE ADRS
1477 *****
1478 * PHYSICAL * LOGICAL SECTOR AND RECORD NUMBERS
1479 * SECTOR# AS * (SEE NOTE 2 BELOW FOR EXPLANATION OF COLS)
1480 * CODED IN *
1481 * WRITE/READ * MOVEABLE HEADS * FIXED **
1482 * ID DCBS * * * * * HEADS **
1483 * (HEX) * 0,4,8 * 1,5,9 * 2,6,A * 3,7 * 0 - 7 *
1484 *****
1485 * 20 * 40 (1) * 40 (1) * 40 (1) * 40 (1) * 40 (1) *
1486 * INDEX * INDEX * INDEX * INDEX * INDEX * INDEX *
1487 * 00 00 20 * 30 18 38 * 20 10 30 * 10 08 28 * 00 00 20 *
1488 * 01 * 02 01 21 * 32 19 39 * 22 11 31 * 12 09 29 * 02 01 21 *
1489 * 02 * 04 02 22 * 34 1A 3A * 24 12 32 * 14 0A 2A * 04 02 22 *
1490 * 03 * 06 03 23 * 36 1B 3B * 26 13 33 * 16 0B 2B * 06 03 23 *
1491 * 04 * 08 04 24 * 38 1C 3C * 28 14 34 * 18 0C 2C * 08 04 24 *
1492 * 05 * 0A 05 25 * 3A 1D 3D * 2A 15 35 * 1A 0D 2D * 0A 05 25 *

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1493 * 06 * 0C 06 26 * 3C 1E 3E * 2C 16 36 * 1C 0E 2E * 0C 06 26 *
1494 * 07 * 0E 07 27 * 3E 1F 3F * 2E 17 37 * 1E 0F 2F * 0E 07 27 *
1495 * 08 * 10 08 28 * 00 00 20 * 30 18 38 * 20 10 30 * 10 08 28 *
1496 * 09 * 12 09 29 * 02 01 21 * 32 19 39 * 22 11 31 * 12 09 29 *
1497 * 0A * 14 0A 2A * 04 02 22 * 34 1A 3A * 24 12 32 * 14 0A 2A *
1498 * 0B * 16 0B 2B * 06 03 24 * 36 1B 3B * 26 13 34 * 16 0B 2B *
1499 * 0C * 18 0C 2C * 08 04 24 * 38 1C 3C * 28 14 34 * 18 0C 2C *
1500 * 0D * 1A 0D 2D * 0A 05 25 * 3A 1D 3D * 2A 15 35 * 1A 0D 2D *
1501 * 0E * 1C 0E 2E * 0C 06 26 * 3C 1E 3E * 2C 16 36 * 1C 0E 2E *
1502 * 0F * 1E 0F 2F * 0E 07 27 * 3E 1F 3F * 2E 17 37 * 1E 0F 2F *
1503 * 10 * 20 10 30 * 10 08 28 * 00 00 20 * 30 18 38 * 20 10 30 *
1504 * 11 * 22 11 31 * 12 09 29 * 02 01 21 * 32 19 39 * 22 11 31 *
1505 * 12 * 24 12 32 * 14 0A 2A * 04 02 22 * 34 1A 3A * 24 12 32 *
1506 * 13 * 26 13 33 * 16 0B 2B * 06 03 24 * 36 1B 3B * 26 13 33 *
1507 * 14 * 28 14 34 * 18 0C 2C * 08 04 24 * 38 1C 3C * 28 14 34 *
1508 * 15 * 2A 15 35 * 1A 0D 2D * 0A 05 25 * 3A 1D 3D * 2A 15 35 *
1509 * 16 * 2C 16 36 * 1C 0E 2E * 0C 06 26 * 3C 1E 3E * 2C 16 36 *
1510 * 17 * 2E 17 37 * 1E 0F 2F * 0E 07 27 * 3E 1F 3F * 2E 17 37 *
1511 * 18 * 30 18 38 * 12 09 29 * 02 01 21 * 32 19 39 * 30 18 38 *
1512 * 19 * 32 19 39 * 22 11 31 * 12 09 29 * 02 01 21 * 32 19 39 *
1513 * 1A * 34 1A 3A * 24 12 32 * 14 0A 2A * 04 02 22 * 34 1A 3A *
1514 * 1B * 36 1B 3B * 26 13 33 * 16 0B 2B * 06 03 23 * 36 1B 3B *
1515 * 1C * 38 1C 3C * 28 14 34 * 18 0C 2C * 08 04 24 * 38 1C 3C *
1516 * 1D * 3A 1D 3D * 2A 15 35 * 1A 0D 2D * 0A 05 25 * 3A 1D 3D *
1517 * 1E * 3C 1E 3E * 2C 16 36 * 1C 0E 2E * 0C 06 26 * 3C 1E 3E *
1518 * 1F * 3E 1F 3F * 2E 17 37 * 1E 0F 2F * 0E 07 27 * 3E 1F 3F *
1519 * 20 * 40 (1) * 40 (1) * 40 (1) * 40 (1) * 40 (1) *
1520 * INDEX * INDEX * INDEX * INDEX * INDEX * INDEX *
1521 * ***** IS RESERVED AS AN ALTERNATE SECTOR AND IS *****
1522 * NOTE (1) - SECTOR 32 (40) IS RESERVED AS AN ALTERNATE SECTOR AND IS *****
1523 * ALWAYS THE SECTOR BEFORE INDEX *****
1524 * NOTE 2 - COL 1 = LOGICAL SECTOR# OF SECTOR AS WRITTEN ON THE FILE *****
1525 * COL 2 = RECORD# 1 AS CODED IN DCB FOR WRITE/READ/SCAN OPS *****
1526 * COL 3 = RECORD# 2 AS CODED IN DCB FOR WRITE/READ/SCAN OPS *****
1527 *
1528 * SECTOR ID FORMAT AS WRITTEN ON FILE (2 WORDS) *****
1529 * WORD0 WORD1 *****
1530 * (FLAG) (SECTOR#) (HEAD#) (CYLINDER#) *****
1531 * 01234567 89101112131415 01234567 89101112131415 *****
1532 * FFFFFFFF OS S S S S S 0 OHHHHHOC CC C C C C C *****
1533 * *****
1534 * *****
1535 * *****
1536 * *****
1537 * 4963 SECTOR ID MOVE 17/03/77 *****
1538 * THIS ROUTINE WILL MOVE AND SCATTER ASSIGN ALTERNATE SECTORS *****
1539 * THAT ARE ASSIGNED ON CYL 64. (FACTORY FORMAT) *****
1540 *
1541 * *****
1542 * *****
1543 * *****
1544 * PINC EQU B48 PLUS INCREMENT CYL *****
1545 * MINC EQU B49 MINUS INCREMENT CYL *****
1546 * FXD EQU B50 FIXED HEADS INSTALLED *****
1547 * FXD EQU B51 FIXED HEAD SPECIFIED *****
1548 * INC EQU B51 INCREMENT CYL *****
1549 * RASN EQU B52 REASSIGN SECTOR *****
1550 * LST EQU B53 LAST RECORD *****
1551 * DIS EQU B54 DISPLACED *****
1552 * SKW EQU B55 SKEWED IND *****
1553 * WRT EQU B56 WRITE SECTOR ID'S *****
1554 * C64 EQU B57 CYL 64 IND *****
1555 * TBTR (R4,PINC) PLUS INC FLAG *****
1556 * TBTR (R4,MINC) MINUS INC FLAG *****
1557 * TBTR (R4,FXD) FIXED HEAD FLAG *****
1558 * TBTR (R4,FXD) FIXED HEAD FLAG *****
1559 * TBTR (R4,INC) INC FLAG *****
1560 * TBTR (R4,RASN) REASSIGN FLAG *****
1561 * TBTR (R4,LST) *****
1562 * TBTR (R4,DIS) *****
1563 * TBTR (R4,SKW) *****
1564 * TBTR (R4,WRT) *****
1565 * TBTR (R4,C64) *****
1566 * TBTR (R4,WRT) *****
1567 * TBTR (R4,FXD) *****
1568 *
1569 *
1570 * T7A95 B T7A951 BRANCH TO START PROG *****
1571 * T7A951 SVA @OUTIN,R7 LOAD ADDRESS OF CONTROL BLOCK *****
1572 * SVC OUTIN ISSUE SVC *****
1573 * SVA @EIOH,R7 LOAD ADDRESS OF CONTROL BLOCK *****
1574 * SVC ETOH ISSUE SVC *****
1575 * MVB TYP7A,DEVADD+1 MOVE BYTE TO DEV TABLE *****
1576 * MVA T7A952,T7A95+2 CHANGE START ADDRESS *****
1577 * SVC TERM TERM TO CHECK DEV. ADDRESS *****
1578 * MVA DEVADD,R1 LOAD ADDRESS OF DEV. TABLE *****
1579 * TBT (R1,16) TEST ASSIGNED BIT *****
1580 * JON ASSGN BRANCH IF ON *****
1581 * JVA EKIT1,TURTN IF OFF RETRY QUESTION *****
1582 * MVA OPTM1,R4 SET ADDRESS OF TERMINATION POINT *****
1583 * BAL $CONC,R6 SET UP POINTER ADDRESS IN R4 *****
1584 * DC A($ERR$) CLEAR DEV DEP STG AND CONNECT I/O BLK *****
1585 * * POINTER TO ERROR ROUTINE *****
1586 * T7A9B BAL XIOCS,R6 *
1587 * DC A($ERR$) *
1588 * TWI X'0100',CSTLS * LARGE FILE ? (DETERMINE MAX HD #) *****
1589 * JOFF SMLF1 NO *****
1590 * MVWI 6,HEADS SET NUMBER OF HEADS *****
1591 * SMLF1 AWI 4,HEADS SET NUMBER OF HEADS *****
1592 * TWI X'0400',CSTLS * FIXED HEADS INSTALLED? *****
1593 * JOFF NFXD NO *****
1594 * TBT (R4,FXD) * TURN ON FXD HEAD INSTALLED IND *****
1595 * MVA SCTID,RSDCB+14 * LOAD BUFFER ADDRESS IN RD SECT ID DCB *****
1596 * MVA SCTID,RKDCB+14 * LOAD BUFFER ADDRESS IN RD SECT ID DCB *****
1597 * MVA WRBUF,WRDCB+14 * LOAD BUFFER ADDRESS IN WRT DCB *****
1598 * MVA RDBUF,RDDCB+14 * LOAD BUFFER ADDRESS IN READ DCB *****
1599 * *
1600 * STR1 MVWI X'0040',HDCYL * SET HD/CYL BUF TO HEAD 0/CYL 64 *****
1601 * MVWZ FGSEC,R0 * INITIALIZE FLAG/SEC TO ZERO *****
1602 * TBT (R4,FXD) * ARE FIXED HEADS ON DISK UNIT? *****
1603 * JOFF STR22 NO *****
1604 * AWI X'0400',HDCYL * NO GO READ IDS ON CYL 64 *****
1605 * MVA X,FGSEC * UPDATE THE HEAD NUMBER TO 1 *****
1606 * STR22 MVWI 0,RMDCB+2 * SET PHY SEC 0 *****

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000010
000011
000012
000013
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000015
000016
000017
000018
000019
001DEC 4C90
001DEE 4C91
001DF0 4C92
001DF2 4C93
001DF4 4C94
001DF6 4C95
001DF8 4C96
001DFA 4C97
001DFC 4C98
001DFE 4C99
001E00 4C98
001E02 4C98
001E04 4C92
001E06 6802 1E0A
001E08 4724 1828
001E0E 6001
001E10 4724 1820
001E14 6019
001E16 8028 181E 1815
001E1C 4020 1E08 1E24
001E22 6007
001E24 4124 1814
001E28 4910
001E2A 1201
001E2C 50BE
001E2E 4020 1988 2BF8
001E30 4424 1940
001E38 6803 1BE2
001E3C 1C16
001E3E 6E03 1AD2
001E42 1C16
001E44 402B 196E 0100
001E4A 1003
001E4C 4020 2388 0006
001E52 4029 2388 0004
001E58 402B 196E 0400
001E60 4C52
001E62 4020 19D6 194E
001E68 4020 1A56 194E
001E6E 4020 19E6 23DC
001E74 4020 1A36 25DC
001E7A 4020 238C 0040
001E80 C825 238A
001E84 4C12
001E86 1006
001E88 4029 238C 0400
001E8E 4029 238A 0008
001E94 4020 1A1A 0000

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001E9A 8828 238C 1A1C 1607 STR23 MVW HDCYL,RMDCB+4 SET READ MULT ID DCB *****
001EA0 4C59 1608 TBT (R4,C64) SET CYL 64 SELECTED SW ON *****
001EA2 6E03 1AAC 1609 BAL $RDIM,R6 READ ID MULTIPLE *****
001EA4 1C16 1610 DC A($ERR$) *****
001EA8 4CA1 1611 TBT (R4,ER) ANY ERROR *****
001EAC 4020 1A5A 2E12 1613 MVW ID00,RAY ADDR OF ID BUFFER *****
001EB2 6E03 2318 1614 BAL ASMD1,R6 CHECK FOR SKEWED ID *****
001EB6 4324 2F1C 1615 STT23 MVA C1000,R3 LOAD BASE ADDR *****
001EBA C220 238C 1616 MVW HDCYL,R2 GET THE HEAD *****
001EBE 3212 1617 SRL 2,R2 ALIGN IT *****
001EC0 EA25 2390 1618 MW BLEN,R2 GET ID LOCATIONS *****
001EC4 7268 1619 AW R2,R3 ADD BASE *****
001EC6 4724 0084 1620 MVWI 132,R7 SET UP MOVE *****
001ECA 4524 2E12 1621 MVA ID00,R5 * *****
001ECE 2D64 1622 MVW (R5),(R3) MOVE CYL 358 IDS TO 358 BUFFER *****
001ED0 4324 1623 MVA ID00,R3 GET ADDR OF SECT NUM *****
001ED4 6E08 238C 1624 MVW HDCYL,R5 GET THE HEAD *****
001ED8 3521 1625 SLL 4,R5 SHIFT OUT EXCESS *****
001EDA 3572 1626 SRL 14,R5 ALIGN THE HEAD *****
001EDC 100E 1627 JZ TRR5 LOGICAL =S PHYSICAL *****
001EDE 7DA2 0001 1628 SWI 1,R5 CHECK HEADS 1,5,9 *****
001EE2 1006 1629 JZ TR33 GO SET THE SECTOR *****
001EE4 7DA2 0001 1630 SWI 1,R5 CHECK HADS 2,6,10 *****
001EE8 1006 1631 JZ TR44 GO SET THE SECTOR *****
001EEA 7B61 0060 1632 AWI X'0060',R3 HEAD 3 ADJ FACTOR *****
001EEE 5005 1633 J TRR5 *****
001EF0 7B61 0020 1634 TT33 AWI X'0020',R3 HEAD 1 ADJ FACTOR *****
001EF4 5002 1635 J TRR5 *****
001EF6 7B61 0040 1636 TT44 AWI X'0040',R3 HEAD 2 ADJ FACTOR *****
001EFA 7344 1637 TTR5 MVW R3,R2 SAVE ADDR OF LOG 0 REAL LOCATION *****
001EFC 802E 1A58 0001 1638 CB ZER00,(R3,1) LOG SECTO ZERO *****
001EF2 1010 1639 JE STR40 YES *****
001F04 4124 0002 1640 MVWI 2,R1 KEEP TRACK OF ORGIN LOG SECT 0 S/B *****
001F08 7B61 0004 1641 AWI 4,R3 KEEP LOOKING FOR LOG SECT ZERO *****
001F0C 802E 1A58 0001 1642 CP ZER00,(R3,1) IS LOG SECT 0 GOOD? *****
001F12 1003 1643 JE TR41 YES *****
001F14 7921 0002 1644 AWI 2,R1 INCREMENT LOG SECT 0 POINTER *****
001F18 50F7 1645 J STR42 *****
001F1A 80A8 1A58 0001 1646 STR41 MVW ZER00,(R2,1) SET LOG SECTOR TO ZERO *****
001F1C C1E8 0001 1647 MVW R1,(R3,1) INTERCHANGE LOG SECT NUMBERS *****
001F20 402B 238C 4000 1648 TTI X'4000',HDCYL CHECK FIXED HEADS *****
001F2A 120E 1649 JON TR00 FIXED HDS SAME AS PHYSICAL *****
001F2C 6B08 238C 1650 MVW HDCYL,R3 GET THE HEAD *****
001F30 3321 1651 SLL 4,R3 SHIFT OUT EXCESS *****
001F32 3372 1652 SRL 14,R3 ALIGN THE HEAD *****
001F34 1009 1653 JZ TR00 LOGICAL =S PHYSICAL *****
001F36 7B62 0001 1654 SWI 1,R3 CHECK HEADS 1,5,9 *****
001F3A 100C 1655 JZ TR30 GO SET THE SECTOR *****
001F3C 7B62 0001 1656 SWI 1,R3 CHECK HADS 2,6,10 *****
001F40 1006 1657 JZ TR20 GO SET THE SECTOR *****
001F42 4524 34DE 1658 MVA BLD10,R5 *****
001F44 5098 1659 J TRST *****
001F46 4524 34DE 1660 TT00 MVA BLD00,R5 *****
001F4C 5005 1661 J TTST *****
001F4E 4524 34E6 1662 TT20 MVA BLD20,R5 *****
001F52 5002 1663 J TRST *****
001F54 4524 34EE 1664 TT30 MVA BLD30,R5 *****
001F58 4020 239C 0020 1665 TTST MVWI 32,SCT32 RENUMBER CYL 64 (SECTOR NUMBERS) *****
001F60 4324 2E13 1666 MVA ID00+1,R3 GET ADDR SECT NUM *****
001F62 85C0 1667 TTSST MVB (R5),(R3) BUILD SECTOR SNUMBERS IN CYL 64 *****
001F64 7B61 0004 1668 AWI 4,R3 * *****
001F68 7DA1 0001 1669 AWI 1,R5 * *****
001F6C 402E 239C 0001 1670 SWI 1,SCT32 * *****
001F72 1877 1671 JNZ TTSST * *****
001F74 4020 239C 0021 1672 MVWI 33,SCT32 FULL SECTOR COUNT *****
001F7A 4324 2E14 1673 MVA ID00+2,R3 RESTORE PROPER HD/CYL IN CYL 64 *****
001F7E 88E0 238C 1674 TTTST MVW HDCYL,(R3) * *****
001F82 7B61 0004 1675 AWI 4,R3 * *****
001F86 402E 239C 0001 1676 SWI 1,SCT32 * *****
001F8C 18F8 1677 JNZ TTTST * *****
001F8E 7B62 0006 1678 SWI 6,R3 * *****
001F92 40CD FFFF 1679 RBTWI X'FFFF',(R3) ADJ BUFFER ADDRESS *****
001F96 40C0 0240 1680 MVWI X'0240',(R3) CLEAR FLAG AND SECTOR# IN 40 *****
001F9A 4020 239C 0020 1681 MVWI 32,SCT32 FORCE FACT DEF AND SCT# 40 *****
001FA4 4020 2B02 1682 MVA ID00,R1 COUNT FOR 32 SECTORS *****
001FA8 7921 0004 1683 AWI X'D000',(R1) REPTT RBTWI X'D000',(R1) CLEAR ALL FLAGS EXCEPT DEF *****
001FAC 402E 239C 0001 1684 SWI 1,SCT32 * *****
001FB2 18F8 1685 JNZ REPTT * *****
001FB4 8828 238C 19EC 1687 MVW HDCYL,SKDCB+4 SETUP HD/CYL PARM IN SEEK DCB *****
001FBA 6E03 1A64 1688 BAL $SEEK,R6 RESEK TO CYLINDER 64 *****
001FBE 1C16 1689 DC A($ERR$) ABORT IF ERROR *****
001FC0 4CA1 1690 TBT (R4,ER) * *****
001FC2 6A00 1C16 1691 BON $ERR$ * *****
001FC6 6F03 2B78 1692 BAL SETWR,R7 SETUP WRITE DCB'S *****
001FCA 6F03 2BD8 1693 BAL WRALL,R7 REWRITE TRK 64 SECTOR ID'S *****
001FCE 6F03 2ADE 1694 BAL UPDTE,R7 GO TO UP-DATE ROUTINE *****
001FD2 4020 1940 1695 TBT (R4,C64) ALL TRACKS ON 64 CHECKED? *****
001FD4 6A00 1E9A 1696 BON STR23 NO - CHECK NEXT TRK ON CYL 64 *****
1697 *
1698 * ASSIGN ALTERNATES FOR DEFECTIVE SECTORS ON CYL 64 *****
1699 *
1700 *
1701 *
1702 * TBT (R4,C64) SET CYL 64 SELECTED SW ON *****
1703 * SWI 1,HDCYL POINT HDCYL TO HDCYL 64 *****
1704 * STTT3 MVW HDCYL,RMDCB+4 LOAD DCB *****
1705 * MVA SD00,RMDCB+14 DATA ADDRESS FOR CYL 64 IDS *****
1706 * BAL $RDIM,R6 READ ID MULTIPLE- TRACK 64 *****
1707 * DC A($ERR$) *****
1708 * TBT (R4,ER) *****
1709 * JOFF STR24 *****
1710 * MVW SD00,RAY ID BUFFER ADDRESS *****
1711 * BAL ASMD1,R6 CHECK FOR SKEWED SECTOR ID *****
1712 * STT24 MVA 32,SCT32 SECTOR COUNT - ONLY 32 SECTORS *****
1713 * MVW SD00,R1 SCT BUFFER ADDRESS *****
1714 * WALT2 TWI X'2200',(R1) DEFECTIVE FLAG ON? *****
1715 * JOFF WALT1 NO *****
1716 * MVW (R1),SCINP+2 GET DEF SECTOR ID ADDRESS *****
1717 * BAL SAV1,SAV1 SAVE CYL 64 BUFFER ADDR *****
1718 * BAL ASSIG,R6 ASSIGN ALTERNATE *****
1719 * MVW SAV1,R1 RESTORE CYL 64 BUFFER ADDR *****
1720 * WALT1 AWI 4,R1 INC SCT ID BUFFER *****
1721 * SWI 1,SCT32 ALL SECTOR CHECKED ON TRACK 64? *****

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    LOCTR OBJECT TEXT          STMT SOURCE STATEMENT          COPYRIGHT IBM CORP 1976
00202A 18FF          1721  JNZ  WALT2         NO-CHECK NEXT SECTOR
00202C 6F03 2ADE       1722  BAL  UPDTE,R7     GO TO UP-DATE ROUTINE
002030 4C19          1723  TBT  (R4,C64)    ALL TRACKS ON 64 CHECKED?
002032 6A00 1FEO       1724  BON  STT13       NO - CHECK NEXT TRK ON CYL 64
1725  *
1726  *   CHECK FOR ANY ASSIGNED ALTERNATES ON CYLINDER 64 (SAVED IN BUFFER)
1727  *   IF ANY, REASSIGN TO THE NEAREST AVAILABLE SPARE SECTOR (40) AND
1728  *   SEEK TO THE TRACK WITH THE DEFECTIVE SECTOR AND REWRITE THE
1729  *   SECTOR ID CHANGING THE SECTOR# AND CYLINDER# SO THAT IT POINTS
1730  *   TO THE ASSIGNED ALTERNATE.
1731  *
002036 4020 2398 0000 1732  MVWI 0,HDDO      INIT HEAD NUMBER
00203C 4124 2F1C       1733  MVA  C1000,R1   TRACK 64 BUFFER ADDRESS
002040 4C12          1734  TBT  (R4,FXD)   FIXED HEADS INSTALLED?
002042 1005          1735  JOFF T6903      NO
002044 4029 2398 0001 1736  AWI  1,HDDO     INCREMENT HEAD NUM
00204A 4124 2FA0       1737  MVA  C1100,R1   BUFFER ADDR
00204E 4020 239C 0021 1738  TC6903 MVWI 33,SC132  COUNT
002054 404B 0100     1739  TWI  X'0100',(R1) ASSIGNED ALT
002058 100B          1740  JOFF T6904      NO
00205A 9108 2394       1741  MVD  (R1),SCINP+2 SAVE SECTOR ID TO BE REASSIGNED
00205E 402D 2394 2F00 1742  RBTWI X'2F00',SCINP+2 RESET FLGS EXCEPT WRT PRO & DATA DEF
002064 690D 239E       1743  MVW  R1,SAV1    SAVE CYL 64 BUFFER ADDR
002068 6E03 2090       1744  BAL  ASSIG,R6   ASSIGN ALTERNATE
00206C 9002 2390       1745  MVW  SAV1,R1    RESTORE CYL 64 BUFFER ADDR
002070 7924 0004       1746  T6904 TWT  X'0100',R1  NEXT SECTOR ID
002074 402E 239C 0001 1747  SWI  1,SC132   NEXT SECTO ID
00207A 18EC          1748  JNZ  TC01       DECREMENT SECT COUNT
00207C 4029 2398 0001 1749  AWI  1,HDDO     INC HEAD NUM
002082 882B 2388 2398 1750  CW  HEADS,HDDO END OF TRACKS
002088 1E01          1751  JLGT T6902     YES
00208A 50E1          1752  J  T6903        NO - KEEP CHECKING SECTOR IN BUFFER
00208C 6802 1C78       1753  B  $CONX       EXIT
1754  * SEARCH FOR AVAILABLE SPARE SECTOR AND ASSIGN ALTERNATE
1755  *
1756  *
002090 6E0D 2316       1758  ASSIG MVW  R6,ASIGR+2 RETURN ADDRESS
002094 9028 2394 19EA 1759  MVD  SCINP+2,SKDCB+2 GET HEAD AND CYLINDER
00209A 6803 1A64       1760  BAL  $SEEK,R6  SEEK
00209E 1C16          1761  DC  A($ERR$)   ERROR
0020A0 4CA1          1762  TBTR (R4,ER)  INTERRUPT ERROR?
0020A2 6A00 1C16       1763  BON  $ERR$    YES-LOGOUT ERROR
0020A6 8828 2396 238C 1764  MVW  SCINP+4,HDCYL LOAD HEAD AND CYL
0020AC 8028 2395 1A5D 1765  MVE  SCINP+3,LGSEC+1 LOAD LOGICAL SECTOR# FOR CONVERT
0020B2 8828 2396 199C 1766  T701 MVW  SCINP+4,DGDCB+4 SET HD/CYL
0020B8 8028 2395 1A5D 1767  MVB  SCINP+3,LGSEC+1 GET USER SPECIFIED SECT
0020BC 9028 2394 23D4 1768  MVD  SCINP+2,SAVID SAVE SECTOR ID FROM USER
0020C4 402B 23D6 4000 1769  TWT  X'4000',SAVID+2 FIXED HEAD SPECIFIED?
0020C8 1001          1770  JOFF T702      NO
0020CA 4C5A          1771  TBTS (R4,FD)    TURN ON FIXED HEAD SPECIFIED IND
0020CC 6B08 23D6       1772  T702 MVW  SAVID+2,R3  GET CYL NUMBER (ORG OR ALT TO BE
0020D2 3331          1773  SLL  6,R3      * TO ASSIGNED NEW ALT.
0020D4 3332          1774  SRL  6,R3      *
0020D6 6B0D 2386       1775  MVW  R3,NCYLN  CYL TO NEW CYL# (NEG)
0020DA 6B0D 2384       1776  MVW  R3,NCYLP  CYL TO NEW CYL# (PLUS)
0020DE 402F 2386 01FF 1777  CWI  X'01FF',NCYLN FIXED HEAD CYL?
0020E4 1806          1778  JNE  T023      NO
0020E6 4020 2386 01FF 1779  MVWI  X'01FF',NCYLN FXD HD CYL TO NEW CYL# (NEG)
0020EC 4020 2384 FFFF 1780  MVWI  X'FFFF',NCYLP FXD HD CYL TO NEW CYL# (PLUS)
0020F2 8828 23D6 19CC 1781  T023 MVW  SAVID+2,RSDCB+4 LOAD HD/CYL IN DCB
0020F8 402D 19CC F000 1782  RBTWI X'F000',RSDCB+4 SET HEAD ZERO
0020FE 4021 1A5C 0040 1783  MVWI  X'0040',LGSEC SET LOG SECT 40
002104 6F03 29DC       1784  BAL  CONVT,R7  CONVERT LOG TO PHY
002108 8028 1A5F 19CB 1785  MVB  PHYSIC+1,RSDCB+3 *
00210E 4C12          1786  T703 TBT  (R4,FXD)   FIXED HEAD INSTALLED?
002110 100E          1787  JOFF T704      NO
002112 6B08 19CC       1788  MVW  RSDCB+4,R3 GET CYL NUMBER (ORG OR ALT TO BE
002116 3331          1789  SLL  6,R3      * TO ASSIGNED NEW ALT.
002118 3332          1790  SRL  6,R3      *
00211A 7B06 01FF       1791  CWI  X'01FF',R3 FXD HD CYL NUM?
00211E 1004          1792  JE  T7033     YES
002120 402C 19CC 0400 1793  OWI  J'0400',RSDCB+4 SET HEAD ONE
002124 5023          1794  T704 OWI  T704      NO
002128 4023 19CC 4000 1795  T7033 OWI  X'4000',RSDCB+4 TURN ON FXD HEAD BIT
00212E 6203 1A74       1796  T704 BAL  $RDIID,R6  READ SECTOR ID
002132 1C16          1797  DC  A($ERR$)   ANY ERR?
002134 4CA1          1798  TBTR (R4,ER)  NO
002136 104C          1799  JOFF T7066     NO
002138 6B08 19CC       1800  T706 MVW  RSDCB+4,R6 GET HEAD
00213C 3652          1801  SRL  10,R6    SHIFT OUT THE CYL
00213E 4C1A          1802  TBT  (R4,FD)   FIXED HEAD SPECIFIED OR TO BE MOVED?
002140 1005          1803  JOFF T7044     NO
002142 4C50          1804  TBTS (R4,PINC) TURN ON PLUS IND
002144 7B06 0017       1805  CWI  X'0017',R6 LAST FIXED HEAD SELECTED?
002148 6800 215E       1806  BE  T709      YES
00214C CB24 2388       1807  T7044 CW  HEADS,R6   LAST HEAD SELECTED?
002150 6800 215E       1808  BE  T709      YES
002154 4029 19CC 0400 1809  AWI  X'0400',RSDCB+4 INC HEAD +1
00215A 6802 212E     1810  B  T704      READ NEXT SECTOR ID
1811  *
00215E 402F 2386 0000 1812  T709 CWI  0,NCYLN  NEW CYL NEG EQUAL ZERO?
002164 101B          1813  JE  T710      YES
002166 402F 2384 0166 1814  CWI  358,NCYLP NEW CYL PLUS EQUAL 358
00216C 1019          1815  JE  T711      YES
00216E 402F 2384 0167 1816  CWI  359,NCYLP NEW CYL PLUS EQUAL 359
002174 1015          1817  JE  T712      YES
002176 4C10          1818  TBT  (R4,PINC) NO
002178 1015          1819  JOFF T714      INC NEW CYL PLUS +1
00217A 4029 2384 0001 1820  T714 AWI  1,NCYLP  PLUS FLAG ON?
002180 4C10          1821  T720 TBT  (R4,PINC)
002182 1219          1822  JON  T715     NO
002184 4C11          1823  TBT  (R4,MINC) MINUS FLAG ON
002186 1021          1824  NO
002188 402F 2386 0000 1825  CWI  0,NCYLN  NEW CYL NEQ EQUAL ZERO
00218E 6800 1C16       1826  BE  $ERR$     YES-NO ALT SECTORS AVAIL
002192 8828 2386 19CC 1827  T717 MVW  NCYLN,RSDCB+4 UPDATED CYL NUM IN DCB
002198 6802 210E       1828  B  T703      GO READ SECTOR ID
00219C 4C50          1829  TBTS (R4,PINC) TURN ON PLUS FLAG
00219E 50EB          1830  JE  T712     YES
0021A0 50EB          1831  T711 TBTS (R4,MINC)
0021A2 50E9          1832  J  T713     NO
0021A4 4C11          1833  TBT  (R4,MINC) MINUS FLAG ON?
0021A6 1203          1834  JON  T718     YES

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    LOCTR OBJECT TEXT          STMT SOURCE STATEMENT          COPYRIGHT IBM CORP 1976
0021A8 4C13          1835  TBT  (R4,INC)  INC FLAG ON?
0021AA 1201          1836  JON  T718     YES
0021AC 50E6          1837  J  T714      NO
0021AE 402E 2386 0001 1838  T718 SWI  1,NCYLN  DECREMENT CYL NUM
0021B4 50E5          1839  J  T720     NO
0021B6 402F 2384 0166 1840  T715 CWI  358,NCYLP  NEW CYL PLUS EQUAL 357?
0021BC 6800 1C16     1841  BE  $ERR$     YES-NO ALT SECTORS AVAILABLE
0021C0 8828 2384 19CC 1842  T719 MVW  NCYLP,RSDCB+4 UPDATED CYL NUM IN DCB
0021C6 6802 210E     1843  B  T703      GO READ NEXT SECTOR ID
0021CA 4C03         1844  TBTV (R4,INC)  TEST AND INVERT INC FLAG
0021CC 10F9         1845  JOFF T719    OFF
0021CE 50E1         1846  J  T717     ON
1847  *
0021D0 802B 1A58 194E 1847  T7066 CB  ZERO0,SC1D  FLAG ZERO?
0021D6 18B0         1848  JNE  T706     NO
0021D8 9028 194E 23D8 1850  MVD  SCTID,AVLID  SAVE AVAILABLE SCT ID
0021DE 9028 23D4 1A60 1851  MVD  SAVID,WRSID  GET ID TO BE WRITTEN AS ALT
0021E4 9028 19CA 19BA 1852  MVD  RSDCB+2,WSDCB+2  LOAD WRITE SECTOR ID DCB
0021EA 4020 19C4 0004 1853  MVWI  4,WSDCB+12  SET BYTE COUNT TO ONE SECTOR
0021F0 4020 19C6 1A60 1854  MVA  WRSID,WSDCB+14  DATA ADDRESS
0021F6 402D 1A60 EF00 1855  RBTWI X'EF00',WRSID  RESET FLAG BITS EXCEPT WRT PROT
0021FC 402C 1A60 0500 1856  OWI  X'0500',WRSID  TURN ON ASSIGNED AND ALT FLAG BITS
002202 9028 19BA 19EA 1857  MVD  WSDCB+2,SKDCB+2  LOAD SEEK ADDR. IN THE DCB
002208 6E03         1858  BAL  $SEER,R6  *
00220C 1C16         1859  DC  A($ERR$)  *
00220E 4CA1         1860  TBTR (R4,ER)  INTERRUPT ERROR?
002210 6A00 1C16     1861  BON  $ERR$    YES-LOGOUT ERROR
002214 6E03 1A90     1862  BAL  $WSEC,R6  WRITE ALT ASSIGNED SECTOR ID
002218 1C16         1863  DC  A($ERR$)  *
00221A 4CA1         1864  TBTR (R4,ER)  ANY ERROR
00221C 1C16         1865  DC  A($ERR$)  YES
002220 9028 23D8 1A60 1866  MVD  AVLID,WRSID  AVAIL SECTOR ID TOBE CROSS WRITTEN
002222 402C 1A60 0600 1867  OWI  X'0600',WRSID  TURN ON FAC DEF & ALT ASSIGNED
00222C 4C96         1868  TBTR (R4,DIS)  RESET DISP BIT INDICATION
00222E 8828 23D6 19CC 1869  MVW  SAVID+2,RSDCB+4  SET FLAG/SECTOR IN DCB
002234 8828 23D6 238C 1870  MVW  SAVID+2,HDCYL  SET HD/CYL
00223A 4020 1D4 0004 1871  MVWI  X'0004',RSDCB+12  BYTE COUNT FOR ONE ID FIELD
002240 4020 1E54 0004 1872  MVWI  X'0004',RSDCB+12  BYTE COUNT FOR ONE ID FIELD
002246 8028 23D5 1A5D 1873  MVA  SAVID+1,LGSEC+1  SECTOR NUMBER
00224C 6F03 29DC       1874  BAL  CONVT,R7  CONVERT TO PHYSICAL
002250 8028 1A5F 19CB 1875  MVB  PHYSIC+1,RSDCB+3  PUT THE SECTOR IN THE DCB
002256 9028 19CA 1A4A 1876  MVD  RSDCB+2,RKDCB+2  SET READ SKEWED DCB
00225C 6E03 1A74     1877  BAL  $RDIID,R6  READ THE ID FIELD
002260 1C16         1878  DC  A($ERR$)  *
002262 4CA1         1879  TBTR (R4,ER)  ANY ERROR?
002264 1015         1880  JOFF ASMX2    NO GO CHECK FLAG
002266 402B 1970 8000 1881  TWI  X'8000',CSTL6  CHECK CRC ERROR
00226C 6800 1C16     1882  BOFF $ERR$    NO ERROR
002270 6E03 1A7C     1883  BAL  $RKEW,R6  READ ID SKEWED
002274 1C16         1884  DC  A($ERR$)  *
002276 4CA1         1885  TBTR (R4,ER)  ANY ERROR?
002278 6A00 23A4 194E 0800 1886  BON  ASMX4     YES TELL USER
00227C 402B 194E 0800 1887  TWI  X'0800',SCTID  CHECKIF ID IS DISP
002282 1001         1888  JOFF ASMX4    NO
002284 4C56         1889  TBTS (R4,DIS)  SET ID DISPLACED IND
002286 4C57         1890  ASMX4 TBTS (R4,SKW)  SET SKEWED INDICATION
002288 8828 19CA 23A0 1891  MVW  RSDCB+2,SKEW  SAVE PHY SCT # OF SKEWED ID
00228E 501D         1892  J  ASXX2     *
002290 402B 194E 0800 1893  ASMX2 TWI  X'0800',SCTID  CHECKIF ID IS DISP
002296 1019         1894  JOFF ASXX2    NO
002298 4C56         1895  TBTS (R4,DIS)  NO
00229A 4029 19CA 0001 1896  AWI  1,RSDCB+2  SET ID DISPLACED IND
0022A0 6E03 1A74     1897  BAL  $RDIID,R6  INC PHY SECT NUM
0022A4 1C16         1898  DC  A($ERR$)  READ THE ID FIELD
0022A6 4CA1         1899  TBTR (R4,ER)  ANY ERROR?
0022A8 1010         1900  JOFF ASXX2    NO
0022AA 402B 1970 8000 1901  TWI  X'8000',CSTL6  CRC CHECK?
0022B0 6800 1C16     1902  BOFF $ERR$    NO
0022B4 4C57         1903  TBTS (R4,SKW)  SET SKEWED IND
0022B6 4029 1A4A 0001 1904  AWI  1,RKDCB+2  INC PHY SECT NUM
0022B8 6E03 1A7C     1905  BAL  $RKEW,R6  READ THE ID FIELD
0022C0 1C16         1906  DC  A($ERR$)  *
0022C2 4CA1         1907  TBTR (R4,ER)  ANY ERROR?
0022C4 6A00 1970 8000 1908  BON  $ERR$    NO
0022C8 4029 1C16     1909  J  ASMX4     *
0022CA 9028 19CA 19BA 1910  ASXX2 MVD  RSDCB+2,WSDCB+2  *
0022D0 4C96         1911  TBTR (R4,DIS)  DISP BIT ON?
0022D2 1003         1912  JOFF ASMX2    NO
0022D4 402C 1A60 0800 1913  OWI  X'0800',WRSID  TURN ON DISP BIT
0022DA 4020 19C4 0004 1914  ASMX2 MVWI  4,WSDCB+12  SET BYTE COUNT TO ONE SECTOR
0022E0 4020 19C6 1A60 1915  MVA  WRSID,WSDCB+14  DATA ADDR
0022E6 4C97         1916  TBTR (R4,SKW)  USER SPECIFIED SECTOR WRITTEN SKEWED
0022E8 1010         1917  JOFF ASME3    NO
0022EA 9028 19BA 1A3A 1918  TT708 MVD  WSDCB+2,WKDCB+2  WRITE SECTOR ID SKEWED
0022F0 4020 1A46 1A60 1919  MVA  WRSID,WKDCB+14  DATA ADDR IN DCB
0022F2 4020 1A44 0004 1920  MVWI  4,WKDCB+12  SET BYTE COUNT TO ONE SECTOR
0022FC 6E03 1A9E     1921  BAL  $WKEW,R6  WRITE ID SKEWED
002300 1C16         1922  DC  A($ERR$)  *
002302 4CA1         1923  TBTR (R4,ER)  INTERRUPT ERROR?
002304 6A00 1C16     1924  BON  $ERR$    YES-LOGOUT ERROR
002308 5005         1925  J  ASIGR     *
00230A 6E03 1A90     1926  ASME3 BAL  $WSEC,R6  WRITE DEFECTIVE SECTOR ID
00230E 1C16         1927  DC  A($ERR$)  *
002310 4CA1         1928  TBTR (R4,ER)  INTERRUPT ERROR?
002312 12EB         1929  JON  T708     NO
002314 6802 0000     1930  ASIGR B  *-      RETURN
1931  * DETERMINE HOW SPECIFIED SECTOR ID IS WRITTEN (NORMAL OR SKEWED)
1932  * THEN WRITE ID WITH ALTERNATE SECTOR ID.
1933  *
002318 6E0D 237E       1934  ASMD1 MVW  R6,ASMD+2  SAVE THE RETURN
00231C 6E03 1AD2       1935  BAL  XI0CS,R6  GET CYCLE STEAL STATUS
002320 1C16         1936  DC  A($ERR$)  *
002322 402E 1970 8000 1937  TWI  X'8000',CSTL6  CK CRC ERROR
002328 102B         1938  JOFF ER22     NO-ID UNREADABLE
00232A 4224 0022     1939  MVWI  X'0022',R2  INIT COUNT
00232E 4524 0021     1940  ASMD2 MVWI  X'0021',R5  INIT COUNT
002332 7A42 0001     1941  SWI  1,R2     TEST MAX OF 33 SECTORS
002336 101F         1942  JZ  ASMD9     YES RETURN
002338 403F 1A5A FFFF 1943  CWI  X'FFFF',RAY*  CHECK FLAG OF 'FFFF'
00233E 1004         1944  JE  ASMD3     YES
002340 4029 1A5A 0004 1945  ASMD4 AWI  4,RAY     INCREMENT LOGICAL SECTOR LOC.
002346 50F3         1946  J  ASMD2     GO TEST NEXT SECTOR
002348 72AA         1947  ASMD3 SW  R2,R5     FIND THE FAILING PHYSICAL SECTOR#
00234A C528 1A4B     1948  MVB  R5,RKDCB+3  PLACE PHYSICAL IN DCB

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LOCTR OBJECT TEXT STMT SOURCE STATEMENT COPYRIGHT IBM CORP 1976
00234E C528 1A3B 1949 MVB R5,WKDCB+3 *
002352 8828 1A5A 1A56 1950 MVA RAY,RKDCB+14 FALLING DATA ADDR
002358 4020 1BD2 1A48 1951 MVA RKDCB,IODCB ADDR OF DCB
002359 8028 1A1C 1A4C 1952 MVA RMDCB+4,RKDCB+4 HEAD AND CYL
002364 6E03 1A7C 1953 MVA SRKWB,R6 READ ID SKEWED
002368 1C16 1954 DC *
00236A 4CA1 1955 TBTR (R4,ER) ANY ERROR?
00236C 1000 1956 JOFF ASM05 NO
00236E 403C 1A5A 0080 1957 ASMDS OWI X'0080',RAY* SET SKEWED BIT INDICA (BITS SCT#)
002374 50E5 1958 ASM04 ASM04 CONTINUE CHECKING ID'S
002376 4020 1A56 194E 1959 ASMDS MVA SCTID,RKDCB+14
00237C 6802 0000 1960 ASMDD B *- *
002380 6802 1C16 1961 ER22 B \$ERRS
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2063 *

LOCTR OBJECT TEXT STMT SOURCE STATEMENT COPYRIGHT IBM CORP 1976
2064 * AREA OF THE ID FIELD
2065 *****
2066 UPDTE STM R6,SAVREGS SAVE THE REGISTERS
2067 MVA HDCL,R3 GET THE HEAD AND CYLINDER
2068 SRL 10,R3 SHIFT OUT THE CYL
2069 UPD01 CB HEADS+1,R3 CHECK FOR THE LAST
2070 JNE UPD05 DO THE NEXT TPACK
2071 MVA HDCL,R3 GET THE HEAD AND CYLINDER
2072 SLL 6,R3 SHIFT OUT THE HEAD
2073 SRL 6,R3 BYTE OF THE WORD
2074 UPD02 CWI X'0166',R3 IS IT CYL 358
2075 UPD20 J Z NO
2076 MVA X'0167',HDCYL SET CYL TO 359
2077 TBT (R4,FXD) IS IT FIXED HEADS
2078 JOFF UPD54 NO
2079 ANI X'0400',HDCYL SET TRACK 1
2080 UPD55 J RETURN
2081 UPD05 ANI X'0400',HDCYL ADD 1 TO HEAD
2082 MVA HDCL,R2 GET THE HEAD
2083 SLL 4,R2 SHIFT OUT EXCESS
2084 SRL 14,R2 ALIGN THE HEAD
2085 JNZ UPD06 NOT ZERO, CHECK NEXT
2086 MVAI 0,FGSEC PUT ZERO INTO SECTOR
2087 J UPD55 HEADS 0/4/8 OFFSET = 5 0
2088 UPD06 SWI 1,R2 CHECK HEADS 1,2,3
2089 SWI 0,R2 GO SET THE OFFSET
2090 SWI R2 CHECK HADS 2,6,10
2091 JZ UPD07 GO SET THE OFFSET
2092 MVAI X'0018',FGSEC OFFSET OF 24 FOR SECTOR 0
2093 UPD55 J *
2094 UPD07 MVAI X'0010',FGSEC OFFSET OF 16 FOR SECTOR 0
2095 UPD55 J *
2096 UPD08 MVAI X'0008',FGSEC OFFSET OF 8 FOR SECTOR 0
2097 UPD55 J *
2098 UPD20 ABI 1,R3 INCREMENT THE CYL
2099 MVA R3,HDCYL REPLACE THE HDCYL
2100 TBT (R4,FXD) TEST FIXED
2101 UPD05 JON 0,FGSEC SET SECTOR TO ZERO
2102 UPD54 MVAI 0,FGSEC TEST CYL 64
2103 UPD55 TBT (R4,C64) JUMP NOT ON
2104 JOFF UPD56 NEXT CYL 65?
2105 CWI 65,R3 NO
2106 JNE UPD56 NO
2107 TBTR (R4,C64) RESET CYL TO 0
2108 UPD56 MVD FGSEC,SKDCB+2 SET SEEK DCB ADDR.
2109 MVA FGSEC+2,RMDCB+4 SET RD MULT ID DCB
2110 UPD57 LMB SAVREGS RETURN
2111 *****
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LOCTR	OBJECT TEXT	STMT	SOURCE STATEMENT	COPYRIGHT IBM CORP 1976
2179	EK	SETC	'0000'(1,4-K'EB)'. 'EB'	
2180		DC	X'EK'	FLAG SECTOR/RECORD
2181	EL	SETC	'0000'(1,4-K'EC)'. 'EC'	
2182		DC	X'EL'	HEAD CYLINDER
2183	EM	SETC	'0000'(1,4-K'ED)'. 'ED'	
2184		DC	X'EM'	RESV. SCAN COUNT
2185		AIF	'EE' EQ '''.N	
2186	EN	SETC	'EE'	
2187		AGO	-E	
2188	.N	ANOP		
2189	EN	SETC	'0000'	
2190		AGO	-E1	
2191	.E	ANOP		
2192		DC	A(EH)	RSB ADDRESS
2193	E1	AIF	'EF' EQ '''.0	
2194	EO	SETC	'EF'	
2195		AGO	-F	
2196	.O	ANOP		
2197	EO	SETC	'0000'	
2198	.F	ANOP		
2199		DC	A(EO)	CHAIN ADDRESS OF NEXT DCB
2200	EP	SETC	'0000'(1,4-K'EG)'. 'EG'	
2201		DC	X'EP'	BYTE COUNT
2202		AIF	'EH' EQ '''.Q	
2203	EQ	SETC	'EH'	
2204		AGO	-H	
2205	.O	ANOP		
2206	EO	SETC	'0000'	
2207	.H	ANOP		
2208		DC	A(EQ)	BUFFER ADDRESS
2209		MEND		
2211	*			
2212	*			
2213	*			
2214	*			
2215	*			
2216	WRT00	DCBT	802D,0,,RSBA,*,+06,4,ID00	
2217	WRT00	DC	X'802D'	CONTROL WORD
2218		DC	X'0000'	FLAG SECTOR/RECORD
2219		DC	X'0000'	HEAD CYLINDER
2220		DC	X'0000'	RESV. SCAN COUNT
2221		DC	A(RSBA)	RSB ADDRESS
2222		DC	A(*+06)	CHAIN ADDRESS OF NEXT DCB
2223		DC	X'0004'	BYTE COUNT
2224		DC	A(ID00)	BUFFER ADDRESS
2225	WRT01	DCBT	802D,1,,RSBA,*,+06,4,ID01	
2226	WRT01	DC	X'802D'	CONTROL WORD
2227		DC	X'0001'	FLAG SECTOR/RECORD
2228		DC	X'0000'	HEAD CYLINDER
2229		DC	X'0000'	RESV. SCAN COUNT
2230		DC	A(RSBA)	RSB ADDRESS
2231		DC	A(*+06)	CHAIN ADDRESS OF NEXT DCB
2232		DC	X'0004'	BYTE COUNT
2233		DC	A(ID01)	BUFFER ADDRESS
2234	WRT02	DCBT	802D,2,,RSBA,*,+06,4,ID02	
2235	WRT02	DC	X'802D'	CONTROL WORD
2236		DC	X'0002'	FLAG SECTOR/RECORD
2237		DC	X'0000'	HEAD CYLINDER
2238		DC	X'0000'	RESV. SCAN COUNT
2239		DC	A(RSBA)	RSB ADDRESS
2240		DC	A(*+06)	CHAIN ADDRESS OF NEXT DCB
2241		DC	X'0004'	BYTE COUNT
2242		DC	A(ID02)	BUFFER ADDRESS
2243	WRT03	DCBT	802D,3,,RSBA,*,+06,4,ID03	
2244	WRT03	DC	X'802D'	CONTROL WORD
2245		DC	X'0003'	FLAG SECTOR/RECORD
2246		DC	X'0000'	HEAD CYLINDER
2247		DC	X'0000'	RESV. SCAN COUNT
2248		DC	A(RSBA)	RSB ADDRESS
2249		DC	A(*+06)	CHAIN ADDRESS OF NEXT DCB
2250		DC	X'0004'	BYTE COUNT
2251		DC	A(ID03)	BUFFER ADDRESS
2252	WRT04	DCBT	802D,4,,RSBA,*,+06,4,ID04	
2253	WRT04	DC	X'802D'	CONTROL WORD
2254		DC	X'0004'	FLAG SECTOR/RECORD
2255		DC	X'0000'	HEAD CYLINDER
2256		DC	X'0000'	RESV. SCAN COUNT
2257		DC	A(RSBA)	RSB ADDRESS
2258		DC	A(*+06)	CHAIN ADDRESS OF NEXT DCB
2259		DC	X'0004'	BYTE COUNT
2260		DC	A(ID04)	BUFFER ADDRESS
2261	WRT05	DCBT	802D,5,,RSBA,*,+06,4,ID05	
2262	WRT05	DC	X'802D'	CONTROL WORD
2263		DC	X'0005'	FLAG SECTOR/RECORD
2264		DC	X'0000'	HEAD CYLINDER
2265		DC	X'0000'	RESV. SCAN COUNT
2266		DC	A(RSBA)	RSB ADDRESS
2267		DC	A(*+06)	CHAIN ADDRESS OF NEXT DCB
2268		DC	X'0004'	BYTE COUNT
2269		DC	A(ID05)	BUFFER ADDRESS
2270	WRT06	DCBT	802D,6,,RSBA,*,+06,4,ID06	
2271	WRT06	DC	X'802D'	CONTROL WORD
2272		DC	X'0006'	FLAG SECTOR/RECORD
2273		DC	X'0000'	HEAD CYLINDER
2274		DC	X'0000'	RESV. SCAN COUNT
2275		DC	A(RSBA)	RSB ADDRESS
2276		DC	A(*+06)	CHAIN ADDRESS OF NEXT DCB
2277		DC	X'0004'	BYTE COUNT
2278		DC	A(ID06)	BUFFER ADDRESS
2279	WRT07	DCBT	802D,7,,RSBA,*,+06,4,ID07	
2280	WRT07	DC	X'802D'	CONTROL WORD
2281		DC	X'0007'	FLAG SECTOR/RECORD
2282		DC	X'0000'	HEAD CYLINDER
2283		DC	X'0000'	RESV. SCAN COUNT
2284		DC	A(RSBA)	RSB ADDRESS
2285		DC	A(*+06)	CHAIN ADDRESS OF NEXT DCB
2286		DC	X'0004'	BYTE COUNT
2287		DC	A(ID07)	BUFFER ADDRESS
2288	WRT08	DCBT	802D,8,,RSBA,*,+06,4,ID08	
2289	WRT08	DC	X'802D'	CONTROL WORD
2290		DC	X'0008'	FLAG SECTOR/RECORD
2291		DC	X'0000'	HEAD CYLINDER
2292		DC	X'0000'	RESV. SCAN COUNT
2293		DC	A(RSBA)	RSB ADDRESS

LOCTR	OBJECT TEXT	STMT	SOURCE STATEMENT	COPYRIGHT IBM CORP 1976
2294		DC	A(*+06)	CHAIN ADDRESS OF NEXT DCB
2295		DC	X'0004'	BYTE COUNT
2296		DC	A(ID08)	BUFFER ADDRESS
2297	WRT09	DCBT	802D,9,,RSBA,*,+06,4,ID09	
2298	WRT09	DC	X'802D'	CONTROL WORD
2299		DC	X'0009'	FLAG SECTOR/RECORD
2300		DC	X'0000'	HEAD CYLINDER
2301		DC	X'0000'	RESV. SCAN COUNT
2302		DC	A(RSBA)	RSB ADDRESS
2303		DC	A(*+06)	CHAIN ADDRESS OF NEXT DCB
2304		DC	X'0004'	BYTE COUNT
2305		DC	A(ID09)	BUFFER ADDRESS
2306	WRT0A	DCBT	802D,A,,RSBA,*,+06,4,ID0A	
2307	WRT0A	DC	X'802D'	CONTROL WORD
2308		DC	X'000A'	FLAG SECTOR/RECORD
2309		DC	X'0000'	HEAD CYLINDER
2310		DC	X'0000'	RESV. SCAN COUNT
2311		DC	A(RSBA)	RSB ADDRESS
2312		DC	A(*+06)	CHAIN ADDRESS OF NEXT DCB
2313		DC	X'0004'	BYTE COUNT
2314		DC	A(ID0A)	BUFFER ADDRESS
2315	WRT0B	DCBT	802D,B,,RSBA,*,+06,4,ID0B	
2316	WRT0B	DC	X'802D'	CONTROL WORD
2317		DC	X'000B'	FLAG SECTOR/RECORD
2318		DC	X'0000'	HEAD CYLINDER
2319		DC	X'0000'	RESV. SCAN COUNT
2320		DC	A(RSBA)	RSB ADDRESS
2321		DC	A(*+06)	CHAIN ADDRESS OF NEXT DCB
2322		DC	X'0004'	BYTE COUNT
2323		DC	A(ID0B)	BUFFER ADDRESS
2324	WRT0C	DCBT	802D,C,,RSBA,*,+06,4,ID0C	
2325	WRT0C	DC	X'802D'	CONTROL WORD
2326		DC	X'000C'	FLAG SECTOR/RECORD
2327		DC	X'0000'	HEAD CYLINDER
2328		DC	X'0000'	RESV. SCAN COUNT
2329		DC	A(RSBA)	RSB ADDRESS
2330		DC	A(*+06)	CHAIN ADDRESS OF NEXT DCB
2331		DC	X'0004'	BYTE COUNT
2332		DC	A(ID0C)	BUFFER ADDRESS
2333	WRT0D	DCBT	802D,D,,RSBA,*,+06,4,ID0D	
2334	WRT0D	DC	X'802D'	CONTROL WORD
2335		DC	X'000D'	FLAG SECTOR/RECORD
2336		DC	X'0000'	HEAD CYLINDER
2337		DC	X'0000'	RESV. SCAN COUNT
2338		DC	A(RSBA)	RSB ADDRESS
2339		DC	A(*+06)	CHAIN ADDRESS OF NEXT DCB
2340		DC	X'0004'	BYTE COUNT
2341		DC	A(ID0D)	BUFFER ADDRESS
2342	WRT0E	DCBT	802D,E,,RSBA,*,+06,4>ID0E	
2343	WRT0E	DC	X'802D'	CONTROL WORD
2344		DC	X'000E'	FLAG SECTOR/RECORD
2345		DC	X'0000'	HEAD CYLINDER
2346		DC	X'0000'	RESV. SCAN COUNT
2347		DC	A(RSBA)	RSB ADDRESS
2348		DC	A(*+06)	CHAIN ADDRESS OF NEXT DCB
2349		DC	X'0004'	BYTE COUNT
2350		DC	A(ID0E)	BUFFER ADDRESS
2351	WRT0F	DCBT	802D,F,,RSBA,*,+06,4,ID0F	
2352	WRT0F	DC	X'802D'	CONTROL WORD
2353		DC	X'000F'	FLAG SECTOR/RECORD
2354		DC	X'0000'	HEAD CYLINDER
2355		DC	X'0000'	RESV. SCAN COUNT
2356		DC	A(RSBA)	RSB ADDRESS
2357		DC	A(*+06)	CHAIN ADDRESS OF NEXT DCB
2358		DC	X'0004'	BYTE COUNT
2359		DC	A(ID0F)	BUFFER ADDRESS
2360	WRT10	DCBT	802D,10,,RSBA,*,+06,4,ID10	
2361	WRT10	DC	X'802D'	CONTROL WORD
2362		DC	X'0010'	FLAG SECTOR/RECORD
2363		DC	X'0000'	HEAD CYLINDER
2364		DC	X'0000'	RESV. SCAN COUNT
2365		DC	A(RSBA)	RSB ADDRESS
2366		DC	A(*+06)	CHAIN ADDRESS OF NEXT DCB
2367		DC	X'0004'	BYTE COUNT
2368		DC	A(ID10)	BUFFER ADDRESS
2369	WRT11	DCBT	802D,11,,RSBA,*,+06,4,ID11	
2370	WRT11	DC	X'802D'	CONTROL WORD
2371		DC	X'0011'	FLAG SECTOR/RECORD
2372		DC	X'0000'	HEAD CYLINDER
2373		DC	X'0000'	RESV. SCAN COUNT
2374		DC	A(RSBA)	RSB ADDRESS
2375		DC	A(*+06)	CHAIN ADDRESS OF NEXT DCB
2376		DC	X'0004'	BYTE COUNT
2377		DC	A(ID11)	BUFFER ADDRESS
2378	WRT12	DCBT	802D,12,,RSBA,*,+06,4,ID12	
2379	WRT12	DC	X'802D'	CONTROL WORD
2380		DC	X'0012'	FLAG SECTOR/RECORD
2381		DC	X'0000'	HEAD CYLINDER
2382		DC	X'0000'	RESV. SCAN COUNT
2383		DC	A(RSBA)	RSB ADDRESS
2384		DC	A(*+06)	CHAIN ADDRESS OF NEXT DCB
2385		DC	X'0004'	BYTE COUNT
2386		DC	A(ID12)	BUFFER ADDRESS
2387	WRT13	DCBT	802D,13,,RSBA,*,+06,4,ID13	
2388	WRT13	DC	X'802D'	CONTROL WORD
2389		DC	X'0013'	FLAG SECTOR/RECORD
2390		DC	X'0000'	HEAD CYLINDER
2391		DC	X'0000'	RESV. SCAN COUNT
2392		DC	A(RSBA)	RSB ADDRESS
2393		DC	A(*+06)	CHAIN ADDRESS OF NEXT DCB
2394		DC	X'0004'	BYTE COUNT
2395		DC	A(ID13)	BUFFER ADDRESS
2396	WRT14	DCBT	802D,14,,RSBA,*,+06,4,ID14	
2397	WRT14	DC	X'802D'	CONTROL WORD
2398		DC	X'0014'	FLAG SECTOR/RECORD
2399		DC	X'0000'	HEAD CYLINDER
2400		DC	X'0000'	RESV. SCAN COUNT
2401		DC	A(RSBA)	RSB ADDRESS
2402		DC	A(*+06)	CHAIN ADDRESS OF NEXT DCB
2403		DC	X'0004'	BYTE COUNT
2404		DC	A(ID14)	BUFFER ADDRESS
2405	WRT15	DCBT	802D,15,,RSBA,*,+06,4,ID15	
2406	WRT15	DC	X'802D'	CONTROL WORD
2407		DC	X'0015'	FLAG SECTOR/RECORD

LOCTR	OBJECT TEXT	STMT	SOURCE STATEMENT	COPYRIGHT IBM CORP 1976	
002D56	0000	2408+	DC	X'0000'	HEAD CYLINDER
002D58	0000	2409+	DC	X'0000'	RESV. SCAN COUNT
002D5A	34CA	2410+	DC	A(RSBA)	RSB ADDRESS
002D5C	2D62	2411+	DC	A(*+06)	CHAIN ADDRESS OF NEXT DCB
002D5E	0004	2412+	DC	X'0004'	BYTE COUNT
002D60	2E66	2413+	DC	A(ID15)	BUFFER ADDRESS
002D62	802D	2414 WRT16	DCBT	802D, 16, RSBA, **06, 4, ID16	
002D64	0016	2415+ WRT16	DC	X'802D'	CONTROL WORD
002D66	0000	2416+	DC	X'0016'	FLAG SECTOR/RECORD
002D68	0000	2417+	DC	X'0000'	HEAD CYLINDER
002D6A	0000	2418+	DC	X'0000'	RESV. SCAN COUNT
002D6C	34CA	2419+	DC	A(RSBA)	RSB ADDRESS
002D6E	2D72	2420+	DC	A(*+06)	CHAIN ADDRESS OF NEXT DCB
002D70	0004	2421+	DC	X'0004'	BYTE COUNT
002D72	2E6A	2422+	DC	A(ID16)	BUFFER ADDRESS
002D74	0017	2423 WRT17	DCBT	802D, 17, RSBA, **06, 4, ID17	
002D76	0000	2424+ WRT17	DC	X'802D'	CONTROL WORD
002D78	0000	2425+	DC	X'0017'	FLAG SECTOR/RECORD
002D7A	0000	2426+	DC	X'0000'	HEAD CYLINDER
002D7C	34CA	2427+	DC	X'0000'	RESV. SCAN COUNT
002D7E	2D82	2428+	DC	A(RSBA)	RSB ADDRESS
002D80	0004	2429+	DC	A(*+06)	CHAIN ADDRESS OF NEXT DCB
002D82	2E6E	2430+	DC	X'0004'	BYTE COUNT
002D84	0018	2431+	DC	A(ID17)	BUFFER ADDRESS
002D86	0000	2432 WRT18	DCBT	802D, 18, RSBA, **06, 4, ID18	
002D88	0000	2433+ WRT18	DC	X'802D'	CONTROL WORD
002D8A	0000	2434+	DC	X'0018'	FLAG SECTOR/RECORD
002D8C	0000	2435+	DC	X'0000'	HEAD CYLINDER
002D8E	0000	2436+	DC	X'0000'	RESV. SCAN COUNT
002D90	2E72	2437+	DC	A(RSBA)	RSB ADDRESS
002D92	002D	2438+	DC	A(*+06)	CHAIN ADDRESS OF NEXT DCB
002D94	0019	2439+	DC	X'0004'	BYTE COUNT
002D96	0000	2440+	DC	A(ID18)	BUFFER ADDRESS
002D98	0000	2441 WRT19	DCBT	802D, 19, RSBA, **06, 4, ID19	
002D9A	34CA	2442+ WRT19	DC	X'802D'	CONTROL WORD
002D9C	2DA2	2443+	DC	X'0019'	FLAG SECTOR/RECORD
002D9E	0004	2444+	DC	X'0000'	HEAD CYLINDER
002DA0	2E76	2445+	DC	X'0000'	RESV. SCAN COUNT
002DA2	802D	2446+	DC	A(RSBA)	RSB ADDRESS
002DA4	001A	2447+	DC	A(*+06)	CHAIN ADDRESS OF NEXT DCB
002DA6	0000	2448+	DC	X'0004'	BYTE COUNT
002DA8	0000	2449+	DC	A(ID19)	BUFFER ADDRESS
002DAA	34CA	2450 WRT1A	DCBT	802D, 1A, RSBA, **06, 4, ID1A	
002DAC	2DB2	2451+ WRT1A	DC	X'802D'	CONTROL WORD
002DAE	0004	2452+	DC	X'001A'	FLAG SECTOR/RECORD
002DAB	0000	2453+	DC	X'0000'	HEAD CYLINDER
002DAD	0000	2454+	DC	X'0000'	RESV. SCAN COUNT
002DAE	0004	2455+	DC	A(RSBA)	RSB ADDRESS
002DAE	0004	2456+	DC	A(*+06)	CHAIN ADDRESS OF NEXT DCB
002DB0	2E7A	2457+	DC	X'0004'	BYTE COUNT
002DB2	802D	2458+	DC	A(ID1A)	BUFFER ADDRESS
002DB4	001B	2459 WRT1B	DCBT	802D, 1B, RSBA, **06, 4, ID1B	
002DB6	0000	2460+ WRT1B	DC	X'802D'	CONTROL WORD
002DB8	0000	2461+	DC	X'001B'	FLAG SECTOR/RECORD
002DBA	34CA	2462+	DC	X'0000'	HEAD CYLINDER
002DBC	0000	2463+	DC	X'0000'	RESV. SCAN COUNT
002DBE	0004	2464+	DC	A(RSBA)	RSB ADDRESS
002DC0	2E7E	2465+	DC	A(*+06)	CHAIN ADDRESS OF NEXT DCB
002DC2	802D	2466+	DC	X'0004'	BYTE COUNT
002DC4	001C	2467+	DC	A(ID1B)	BUFFER ADDRESS
002DC6	0000	2468 WRT1C	DCBT	802D, 1C, RSBA, **06, 4, ID1C	
002DC8	0000	2469+ WRT1C	DC	X'802D'	CONTROL WORD
002DCA	34CA	2470+	DC	X'001C'	FLAG SECTOR/RECORD
002DCC	2DD2	2471+	DC	X'0000'	HEAD CYLINDER
002DCE	0004	2472+	DC	X'0000'	RESV. SCAN COUNT
002DD0	2E82	2473+	DC	A(RSBA)	RSB ADDRESS
002DD2	802D	2474+	DC	A(*+06)	CHAIN ADDRESS OF NEXT DCB
002DD4	001D	2475+	DC	X'0004'	BYTE COUNT
002DD6	0000	2476+	DC	A(ID1C)	BUFFER ADDRESS
002DD8	0000	2477 WRT1D	DCBT	802D, 1D, RSBA, **06, 4, ID1D	
002DDA	34CA	2478+ WRT1D	DC	X'802D'	CONTROL WORD
002DDC	2DE2	2479+	DC	X'001D'	FLAG SECTOR/RECORD
002DDE	0004	2480+	DC	X'0000'	HEAD CYLINDER
002DE0	2E86	2481+	DC	X'0000'	RESV. SCAN COUNT
002DE2	802D	2482+	DC	A(RSBA)	RSB ADDRESS
002DE4	001E	2483+	DC	A(*+06)	CHAIN ADDRESS OF NEXT DCB
002DE6	0000	2484+	DC	X'0004'	BYTE COUNT
002DE8	0000	2485+	DC	A(ID1D)	BUFFER ADDRESS
002DEA	34CA	2486 WRT1E	DCBT	802D, 1E, RSBA, **06, 4, ID1E	
002DEC	2DF2	2487+ WRT1E	DC	X'802D'	CONTROL WORD
002DEE	0004	2488+	DC	X'001E'	FLAG SECTOR/RECORD
002DF0	2E8A	2489+	DC	X'0000'	HEAD CYLINDER
002DF2	802D	2490+	DC	X'0000'	RESV. SCAN COUNT
002DF4	001F	2491+	DC	A(RSBA)	RSB ADDRESS
002DF6	0000	2492+	DC	A(*+06)	CHAIN ADDRESS OF NEXT DCB
002DF8	0000	2493+	DC	X'0004'	BYTE COUNT
002DFA	34CA	2494+	DC	A(ID1E)	BUFFER ADDRESS
002DFC	0004	2495 WRT1F	DCBT	802D, 1F, RSBA, **06, 4, ID1F	
002DFE	0004	2496+ WRT1F	DC	X'802D'	CONTROL WORD
002E00	2E8E	2497+	DC	X'001F'	FLAG SECTOR/RECORD
002E02	002D	2498+	DC	X'0000'	HEAD CYLINDER
002E04	0020	2499+	DC	X'0000'	RESV. SCAN COUNT
002E06	0000	2500+	DC	A(RSBA)	RSB ADDRESS
002E08	0000	2501+	DC	A(*+06)	CHAIN ADDRESS OF NEXT DCB
002E0A	34CA	2502+	DC	X'0004'	BYTE COUNT
002E0C	0000	2503+	DC	A(ID1F)	BUFFER ADDRESS
002E0E	0004	2504 WRT20	DCBT	002D, 20, RSBA, 0000, 4, ID20	
002E10	2E92	2505+ WRT20	DC	X'002D'	CONTROL WORD
002E12	00000000	2506+	DC	X'0020'	FLAG SECTOR/RECORD
002E14	00000000	2507+	DC	X'0000'	HEAD CYLINDER
002E16	00000000	2508+	DC	X'0000'	RESV. SCAN COUNT
002E18	00000000	2509+	DC	A(RSBA)	RSB ADDRESS
002E1A	00000000	2510+	DC	A(*+06)	CHAIN ADDRESS OF NEXT DCB
002E1C	00000000	2511+	DC	X'0004'	BYTE COUNT
002E1E	00000000	2512+	DC	A(ID20)	BUFFER ADDRESS
002E20	00000000	2513 *	*		
002E22	00000000	2514 *	*		
002E24	00000000	2515 FSTID	EQU	*	
002E26	00000000	2516 ID00	DC	X'00000000'	60 SECTOR ID BUFFERS
		2517 ID01	DC	X'00020000'	FL, SEC, HD, CYL
		2518 ID02	DC	X'00040000'	*
		2519 ID03	DC	X'00060000'	*
		2520 ID04	DC	X'00080000'	*
		2521 ID05	DC	X'000A0000'	*

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002E2A	000C0000	2522	ID06 DC	X'000C0000'
002E2B	000E0000	2523	ID07 DC	X'000E0000'
002E2C	00100000	2524	ID08 DC	X'00100000'
002E2D	00120000	2525	ID09 DC	X'00120000'
002E2E	00140000	2526	ID0A DC	X'00140000'
002E2F	00160000	2527	ID0B DC	X'00160000'
002E30	00180000	2528	ID0C DC	X'00180000'
002E31	001A0000	2529	ID0D DC	X'001A0000'
002E32	001C0000	2530	ID0E DC	X'001C0000'
002E33	001E0000	2531	ID0F DC	X'001E0000'
002E34	00200000	2532	ID10 DC	X'00200000'
002E35	00220000	2533	ID11 DC	X'00220000'
002E36	00240000	2534	ID12 DC	X'00240000'
002E37	00260000	2535	ID13 DC	X'00260000'
002E38	00280000	2536	ID14 DC	X'00280000'
002E39	002A0000	2537	ID15 DC	X'002A0000'
002E3A	002C0000	2538	ID16 DC	X'002C0000'
002E3B	002E0000	2539	ID17 DC	X'002E0000'
002E3C	00300000	2540	ID18 DC	X'00300000'
002E3D	00320000	2541	ID19 DC	X'00320000'
002E3E	00340000	2542	ID1A DC	X'00340000'
002E3F	00360000	2543	ID1B DC	X'00360000'
002E40	00380000	2544	ID1C DC	X'00380000'
002E41	003A0000	2545	ID1D DC	X'003A0000'
002E42	003C0000	2546	ID1E DC	X'003C0000'
002E43	003E0000	2547	ID1F DC	X'003E0000'
002E44	00400000	2548	ID20 DC	X'00400000'
002E96	2E96	2549 *		
002E98	00000000	2550	LASTID DC	A(LASTID)
002E99	00020000	2551 *		DELIMITER FOR SCANS
002E9A	00040000	2552	SD00 DC	X'00000000'
002E9B	00060000	2553	SD01 DC	X'00020000'
002E9C	00080000	2554	SD02 DC	X'00040000'
002E9D	000A0000	2555	SD03 DC	X'00060000'
002E9E	000C0000	2556	SD04 DC	X'00080000'
002E9F	000E0000	2557	SD05 DC	X'000A0000'
002EA0	000F0000	2558	SD06 DC	X'000C0000'
002EA1	00100000	2559	SD07 DC	X'000E0000'
002EA2	00120000	2560	SD08 DC	X'00100000'
002EA3	00140000	2561	SD09 DC	X'00120000'
002EA4	00160000	2562	SD0A DC	X'00140000'
002EA5	00180000	2563	SD0B DC	X'00160000'
002EA6	001A0000	2564	SD0C DC	X'00180000'
002EA7	001C0000	2565	SD0D DC	X'001A0000'
002EA8	001E0000	2566	SD0E DC	X'001C0000'
002EA9	00200000	2567	SD0F DC	X'001E0000'
002EAA	00220000	2568	SD10 DC	X'00200000'
002EAB	00240000	2569	SD11 DC	X'00220000'
002EAC	00260000	2570	SD12 DC	X'00240000'
002EAD	00280000	2571	SD13 DC	X'00260000'
002EAE	002A0000	2572	SD14 DC	X'00280000'
002EAF	002C0000	2573	SD15 DC	X'002A0000'
002E98	00000000	2574	SD16 DC	X'002C0000'
002E99	00020000	2575	SD17 DC	X'002E0000'
002E9A	00040000	2576	SD18 DC	X'00300000'
002E9B	00060000	2577	SD19 DC	X'00320000'
002E9C	00080000	2578	SD1A DC	X'00340000'
002E9D	000A0000	2579	SD1B DC	X'00360000'
002E9E	000C0000	2580	SD1C DC	X'00380000'
002E9F	000E0000	2581	SD1D DC	X'003A0000'
002EA0	00100000	2582	SD1E DC	X'003C0000'
002EA1	00120000	2583	SD1F DC	X'003E0000'
002EA2	00140000	2584	SD20 DC	X'00400000'
002EA3	00160000	2585 *		
002EA4	00180000	2586 **		CYLINDER 358, HEAD 0 - SECTOR ID'S *****
002EA5	001A0000	2587 *		
002EA6	001C0000	2588	C1000 DC	X'00000166'
002EA7	001E0000	2589	C1001 DC	X'00020166'
002EA8	00200000	2590	C1002 DC	X'00040166'
002EA9	00220000	2591	C1003 DC	X'00060166'
002EAA	00240000	2592	C1004 DC	X'00080166'
002EAB	00260000	2593	C1005 DC	X'000A0166'
002EAC	00280000	2594	C1006 DC	X'000C0166'
002EAD	002A0000	2595	C1007 DC	X'000E0166'
002EAE	002C0000	2596	C1008 DC	X'00100166'
002EAF	002E0000	2597	C1009 DC	X'00120166'
002EA0	00300000	2598	C100A DC	X'00140166'
002EA1	00320000	2599	C100B DC	X'00160166'
002EA2	00340000	2600	C100C DC	X'00180166'
002EA3	00360000	2601	C100D DC	X'001A0166'
002EA4	00380000	2602	C100E DC	X'001C0166'
002EA5	003A0000	2603	C100F DC	X'001E0166'
002EA6	003C0000	2604	C1010 DC	X'00200166'
002EA7	003E0000	2605	C1011 DC	X'00220166'
002EA8	00400000	2606	C1012 DC	X'00240166'
002EA9	00400000	2607	C1013 DC	X'00260166'

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002FCC	00160566	2636	C110B DC X'00160566'	*
002FD0	00180566	2637	C110C DC X'00180566'	*
002FD4	001A0566	2638	C110D DC X'001A0566'	*
002FD8	001C0566	2639	C110E DC X'001C0566'	*
002FE0	001E0566	2640	C110F DC X'001E0566'	*
002FE4	00200566	2641	C1110 DC X'00200566'	*
002FE8	00220566	2642	C1111 DC X'00220566'	*
002FEC	00240566	2643	C1112 DC X'00240566'	*
002FF0	00260566	2644	C1113 DC X'00260566'	*
002FF4	00280566	2645	C1114 DC X'00280566'	*
002FF8	002A0566	2646	C1115 DC X'002A0566'	*
002FFC	002C0566	2647	C1116 DC X'002C0566'	*
003000	002E0566	2648	C1117 DC X'002E0566'	*
003004	00300566	2649	C1118 DC X'00300566'	*
003008	00320566	2650	C1119 DC X'00320566'	*
00300C	00340566	2651	C111A DC X'00340566'	*
003010	00360566	2652	C111B DC X'00360566'	*
003014	00380566	2653	C111C DC X'00380566'	*
003018	003A0566	2654	C111D DC X'003A0566'	*
00301C	003C0566	2655	C111E DC X'003C0566'	*
003020	003E0566	2656	C111F DC X'003E0566'	*
	00400566	2657	C1120 DC X'00400566'	*
2658 * CYLINDER 358, HEAD 2 - SECTOR ID'S				
003024	00000966	2659	C1200 DC X'00000966'	FL, SEC, HD, CYL
003028	00020966	2660	C1201 DC X'00020966'	*
00302C	00040966	2661	C1202 DC X'00040966'	*
003030	00060966	2662	C1203 DC X'00060966'	*
003034	00080966	2663	C1204 DC X'00080966'	*
003038	000A0966	2664	C1205 DC X'000A0966'	*
00303C	000C0966	2665	C1206 DC X'000C0966'	*
003040	000E0966	2666	C1207 DC X'000E0966'	*
003044	00100966	2667	C1208 DC X'00100966'	*
003048	00120966	2668	C1209 DC X'00120966'	*
00304C	00140966	2669	C120A DC X'00140966'	*
003050	00160966	2670	C120B DC X'00160966'	*
003054	00180966	2671	C120C DC X'00180966'	*
003058	001A0966	2672	C120D DC X'001A0966'	*
00305C	001C0966	2673	C120E DC X'001C0966'	*
003060	001E0966	2674	C120F DC X'001E0966'	*
003064	00200966	2675	C1210 DC X'00200966'	*
003068	00220966	2676	C1211 DC X'00220966'	*
00306C	00240966	2677	C1212 DC X'00240966'	*
003070	00260966	2678	C1213 DC X'00260966'	*
003074	00280966	2679	C1214 DC X'00280966'	*
003078	002A0966	2680	C1215 DC X'002A0966'	*
00307C	002C0966	2681	C1216 DC X'002C0966'	*
003080	002E0966	2682	C1217 DC X'002E0966'	*
003084	00300966	2683	C1218 DC X'00300966'	*
003088	00320966	2684	C1219 DC X'00320966'	*
00308C	00340966	2685	C121A DC X'00340966'	*
003090	00360966	2686	C121B DC X'00360966'	*
003094	00380966	2687	C121C DC X'00380966'	*
003098	003A0966	2688	C121D DC X'003A0966'	*
00309C	003C0966	2689	C121E DC X'003C0966'	*
0030A0	003E0966	2690	C121F DC X'003E0966'	*
0030A4	00400966	2691	C1220 DC X'00400966'	*
2692 * CYLINDER -358 HEAD - 3				
0030A8	00000D66	2693	C1300 DC X'00000D66'	FL, SEC, HD, CYL
0030AC	00020D66	2694	C1301 DC X'00020D66'	*
0030B0	00040D66	2695	C1302 DC X'00040D66'	*
0030B4	00060D66	2696	C1303 DC X'00060D66'	*
0030B8	00080D66	2697	C1304 DC X'00080D66'	*
0030BC	000A0D66	2698	C1305 DC X'000A0D66'	*
0030C0	000C0D66	2699	C1306 DC X'000C0D66'	*
0030C4	000E0D66	2700	C1307 DC X'000E0D66'	*
0030C8	00100D66	2701	C1308 DC X'00100D66'	*
0030CC	00120D66	2702	C1309 DC X'00120D66'	*
0030D0	00140D66	2703	C130A DC X'00140D66'	*
0030D4	00160D66	2704	C130B DC X'00160D66'	*
0030D8	00180D66	2705	C130C DC X'00180D66'	*
0030DC	001A0D66	2706	C130D DC X'001A0D66'	*
0030E0	001C0D66	2707	C130E DC X'001C0D66'	*
0030E4	001E0D66	2708	C130F DC X'001E0D66'	*
0030E8	00200D66	2709	C1310 DC X'00200D66'	*
0030EC	00220D66	2710	C1311 DC X'00220D66'	*
0030F0	00240D66	2711	C1312 DC X'00240D66'	*
0030F4	00260D66	2712	C1313 DC X'00260D66'	*
0030F8	00280D66	2713	C1314 DC X'00280D66'	*
0030FC	002A0D66	2714	C1315 DC X'002A0D66'	*
003100	002C0D66	2715	C1316 DC X'002C0D66'	*
003104	002E0D66	2716	C1317 DC X'002E0D66'	*
003108	00300D66	2717	C1318 DC X'00300D66'	*
00310C	00320D66	2718	C1319 DC X'00320D66'	*
003110	00340D66	2719	C131A DC X'00340D66'	*
003114	00360D66	2720	C131B DC X'00360D66'	*
003118	00380D66	2721	C131C DC X'00380D66'	*
00311C	003A0D66	2722	C131D DC X'003A0D66'	*
003120	003C0D66	2723	C131E DC X'003C0D66'	*
003124	003E0D66	2724	C131F DC X'003E0D66'	*
003128	00400D66	2725	C1320 DC X'00400D66'	*
2726 * CYLINDER -358 HEAD - 4				
00312C	00001166	2727	C1400 DC X'00001166'	FL, SEC, HD, CYL
003130	00021166	2728	C1401 DC X'00021166'	*
003134	00041166	2729	C1402 DC X'00041166'	*
003138	00061166	2730	C1403 DC X'00061166'	*
00313C	00081166	2731	C1404 DC X'00081166'	*
003140	000A1166	2732	C1405 DC X'000A1166'	*
003144	000C1166	2733	C1406 DC X'000C1166'	*
003148	000E1166	2734	C1407 DC X'000E1166'	*
00314C	00101166	2735	C1408 DC X'00101166'	*
003150	00121166	2736	C1409 DC X'00121166'	*
003154	00141166	2737	C140A DC X'00141166'	*
003158	00161166	2738	C140B DC X'00161166'	*
00315C	00181166	2739	C140C DC X'00181166'	*
003160	001A1166	2740	C140D DC X'001A1166'	*
003164	001C1166	2741	C140E DC X'001C1166'	*
003168	001E1166	2742	C140F DC X'001E1166'	*
00316C	00201166	2743	C1410 DC X'00201166'	*
003170	00221166	2744	C1411 DC X'00221166'	*

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003174	00241166	2750	C1412 DC X'00241166'	*
003178	00261166	2751	C1413 DC X'00261166'	*
00317C	00281166	2752	C1414 DC X'00281166'	*
003180	002A1166	2753	C1415 DC X'002A1166'	*
003184	002C1166	2754	C1416 DC X'002C1166'	*
003188	002E1166	2755	C1417 DC X'002E1166'	*
003194	00301166	2756	C1418 DC X'00301166'	*
003198	00321166	2757	C1419 DC X'00321166'	*
00319C	00341166	2758	C141A DC X'00341166'	*
0031A0	00361166	2759	C141B DC X'00361166'	*
0031A4	00381166	2760	C141C DC X'00381166'	*
0031A8	003A1166	2761	C141D DC X'003A1166'	*
0031AC	00401166	2762	C141E DC X'00401166'	*
2763 * CYLINDER -358 HEAD - 5				
0031B0	00001566	2764	C1500 DC X'00001566'	FL, SEC, HD, CYL
0031B4	00021566	2765	C1501 DC X'00021566'	*
0031B8	00041566	2766	C1502 DC X'00041566'	*
0031BC	00061566	2767	C1503 DC X'00061566'	*
0031C0	00081566	2768	C1504 DC X'00081566'	*
0031C4	000A1566	2769	C1505 DC X'000A1566'	*
0031C8	000C1566	2770	C1506 DC X'000C1566'	*
0031CC	000E1566	2771	C1507 DC X'000E1566'	*
0031D0	00101566	2772	C1508 DC X'00101566'	*
0031D4	00121566	2773	C1509 DC X'00121566'	*
0031D8	00141566	2774	C150A DC X'00141566'	*
0031DC	00161566	2775	C150B DC X'00161566'	*
0031E0	00181566	2776	C150C DC X'00181566'	*
0031E4	001A1566	2777	C150D DC X'001A1566'	*
0031E8	001C1566	2778	C150E DC X'001C1566'	*
0031EC	001E1566	2779	C150F DC X'001E1566'	*
0031F0	00201566	2780	C1510 DC X'00201566'	*
0031F4	00221566	2781	C1511 DC X'00221566'	*
0031F8	00241566	2782	C1512 DC X'00241566'	*
0031FC	00261566	2783	C1513 DC X'00261566'	*
003200	00281566	2784	C1514 DC X'00281566'	*
003204	002A1566	2785	C1515 DC X'002A1566'	*
003208	002C1566	2786	C1516 DC X'002C1566'	*
00320C	002E1566	2787	C1517 DC X'002E1566'	*
003210	00301566	2788	C1518 DC X'00301566'	*
003214	00321566	2789	C1519 DC X'00321566'	*
003218	00341566	2790	C151A DC X'00341566'	*
00321C	00361566	2791	C151B DC X'00361566'	*
003220	00381566	2792	C151C DC X'00381566'	*
003224	003A1566	2793	C151D DC X'003A1566'	*
003228	003C1566	2794	C151E DC X'003C1566'	*
00322C	003E1566	2795	C151F DC X'003E1566'	*
003230	00401566	2796	C1520 DC X'00401566'	*
2797 * CYLINDER -358 HEAD - 6				
003234	00001966	2801	C1600 DC X'00001966'	FL, SEC, HD, CYL
003238	00021966	2802	C1601 DC X'00021966'	*
00323C	00041966	2803	C1602 DC X'00041966'	*
003240	00061966	2804	C1603 DC X'00061966'	*
003244	00081966	2805	C1604 DC X'00081966'	*
003248	000A1966	2806	C1605 DC X'000A1966'	*
00324C	000C1966	2807	C1606 DC X'000C1966'	*
003250	000E1966	2808	C1607 DC X'000E1966'	*
003254	00101966	2809	C1608 DC X'00101966'	*
003258	00121966	2810	C1609 DC X'00121966'	*
00325C	00141966	2811	C160A DC X'00141966'	*
003260	00161966	2812	C160B DC X'00161966'	*
003264	00181966	2813	C160C DC X'00181966'	*
003268	001A1966	2814	C160D DC X'001A1966'	*
00326C	001C1966	2815	C160E DC X'001C1966'	*
003270	001E1966	2816	C160F DC X'001E1966'	*
003274	00201966	2817	C1610 DC X'00201966'	*
003278	00221966	2818	C1611 DC X'00221966'	*
00327C	00241966	2819	C1612 DC X'00241966'	*
003280	00261966	2820	C1613 DC X'00261966'	*
003284	00281966	2821	C1614 DC X'00281966'	*
003288	002A1966	2822	C1615 DC X'002A1966'	*
00329C	002C1966	2823	C1616 DC X'002C1966'	*
0032A0	002E1966	2824	C1617 DC X'002E1966'	*
0032A4	00301966	2825	C1618 DC X'00301966'	*
0032A8	00321966	2826	C1619 DC X'00321966'	*
0032AC	00341966	2827	C161A DC X'00341966'	*
0032B0	00361966	2828	C161B DC X'00361966'	*
0032B4	00381966	2829	C161C DC X'00381966'	*
0032B8	00401966	2830	C161D DC X'00401966'	*
0032BC	00021D66	2831	C1700 DC X'00021D66'	FL, SEC, HD, CYL
0032C0	00041D66	2832	C1701 DC X'00041D66'	*
0032C4	00061D66	2833	C1702 DC X'00061D66'	*
0032C8	00081D66	2834	C1703 DC X'00081D66'	*
0032CC	000A1D66	2835	C1704 DC X'000A1D66'	*
0032D0	000C1D66	2836	C1705 DC X'000C1D66'	*
0032D4	000E1D66	2837	C1706 DC X'000E1D66'	*
0032D8	00101D66	2838	C	

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003324 00361D66 2864 C171B DC X'00361D66' *
003325 00381D66 2865 C171C DC X'00381D66' *
003326 003A1D66 2866 C171D DC X'003A1D66' *
003327 003C1D66 2867 C171E DC X'003C1D66' *
003328 003E1D66 2868 C171F DC X'003E1D66' *
003329 00401D66 2869 C1720 DC X'00401D66' *
2870 * CYLINDER - 358 HEAD - 8
2871 *
2872 C1800 DC X'00002166' *
2873 C1801 DC X'00022166' *
2874 C1802 DC X'00042166' *
2875 C1803 DC X'00062166' *
2876 C1804 DC X'00082166' *
2877 C1805 DC X'000A2166' *
2878 C1806 DC X'000C2166' *
2879 C1807 DC X'000E2166' *
2880 C1808 DC X'00102166' *
2881 C1809 DC X'00122166' *
2882 C180A DC X'00142166' *
2883 C180B DC X'00162166' *
2884 C180C DC X'00182166' *
2885 C180D DC X'001A2166' *
2886 C180E DC X'001C2166' *
2887 C180F DC X'001E2166' *
2888 C1810 DC X'00202166' *
2889 C1811 DC X'00222166' *
2890 C1812 DC X'00242166' *
2891 C1813 DC X'00262166' *
2892 C1814 DC X'00282166' *
2893 C1815 DC X'002A2166' *
2894 C1816 DC X'002C2166' *
2895 C1817 DC X'002E2166' *
2896 C1818 DC X'00302166' *
2897 C1819 DC X'00322166' *
2898 C181A DC X'00342166' *
2899 C181B DC X'00362166' *
2900 C181C DC X'00382166' *
2901 C181D DC X'003A2166' *
2902 C181E DC X'003C2166' *
2903 C181F DC X'003E2166' *
2904 C1820 DC X'00402166' *
2905 * CYLINDER - 358 HEAD - 9
2906 *
2907 C1900 DC X'00002566' *
2908 C1901 DC X'00022566' *
2909 C1902 DC X'00042566' *
2910 C1903 DC X'00062566' *
2911 C1904 DC X'00082566' *
2912 C1905 DC X'000A2566' *
2913 C1906 DC X'000C2566' *
2914 C1907 DC X'000E2566' *
2915 C1908 DC X'00102566' *
2916 C1909 DC X'00122566' *
2917 C190A DC X'00142566' *
2918 C190B DC X'00162566' *
2919 C190C DC X'00182566' *
2920 C190D DC X'001A2566' *
2921 C190E DC X'001C2566' *
2922 C190F DC X'001E2566' *
2923 C1910 DC X'00202566' *
2924 C1911 DC X'00222566' *
2925 C1912 DC X'00242566' *
2926 C1913 DC X'00262566' *
2927 C1914 DC X'00282566' *
2928 C1915 DC X'002A2566' *
2929 C1916 DC X'002C2566' *
2930 C1917 DC X'002E2566' *
2931 C1918 DC X'00302566' *
2932 C1919 DC X'00322566' *
2933 C191A DC X'00342566' *
2934 C191B DC X'00362566' *
2935 C191C DC X'00382566' *
2936 C191D DC X'003A2566' *
2937 C191E DC X'003C2566' *
2938 C191F DC X'003E2566' *
2939 C1920 DC X'00402566' *
2940 * CYLINDER -358 HEAD - 10
2941 *
2942 C1A00 DC X'00002966' *
2943 C1A01 DC X'00022966' *
2944 C1A02 DC X'00042966' *
2945 C1A03 DC X'00062966' *
2946 C1A04 DC X'00082966' *
2947 C1A05 DC X'000A2966' *
2948 C1A06 DC X'000C2966' *
2949 C1A07 DC X'000E2966' *
2950 C1A08 DC X'00102966' *
2951 C1A09 DC X'00122966' *
2952 C1A0A DC X'00142966' *
2953 C1A0B DC X'00162966' *
2954 C1A0C DC X'00182966' *
2955 C1A0D DC X'001A2966' *
2956 C1A0E DC X'001C2966' *
2957 C1A0F DC X'001E2966' *
2958 C1A10 DC X'00202966' *
2959 C1A11 DC X'00222966' *
2960 C1A12 DC X'00242966' *
2961 C1A13 DC X'00262966' *
2962 C1A14 DC X'00282966' *
2963 C1A15 DC X'002A2966' *
2964 C1A16 DC X'002C2966' *
2965 C1A17 DC X'002E2966' *
2966 C1A18 DC X'00302966' *
2967 C1A19 DC X'00322966' *
2968 C1A1A DC X'00342966' *
2969 C1A1B DC X'00362966' *
2970 C1A1C DC X'00382966' *
2971 C1A1D DC X'003A2966' *
2972 C1A1E DC X'003C2966' *
2973 C1A1F DC X'003E2966' *
2974 C1A20 DC X'00402966' *
2975 *
2976 CEND2 DC A(CEND2) END OF CYL 358
2977 *

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0034CA 0000000000000000 2978 RSBA DC 6A (***) RESIDUAL STATUS BLOCK
2979 *
0034D6 00 2980 BLD00 DC X'00'
0034D7 02 2981 DC X'02'
0034D8 04 2982 DC X'04'
0034D9 06 2983 DC X'06'
0034DA 08 2984 DC X'08'
0034DB 0A 2985 DC X'0A'
0034DC 0C 2986 DC X'0C'
0034DD 0E 2987 DC X'0E'
0034DE 10 2988 BLD10 DC X'10'
0034DF 12 2989 DC X'12'
0034E0 14 2990 DC X'14'
0034E1 16 2991 DC X'16'
0034E2 18 2992 DC X'18'
0034E3 1A 2993 DC X'1A'
0034E4 1C 2994 DC X'1C'
0034E5 1E 2995 DC X'1E'
0034E6 20 2996 BLD20 DC X'20'
0034E7 22 2997 DC X'22'
0034E8 24 2998 DC X'24'
0034E9 26 2999 DC X'26'
0034EA 28 3000 DC X'28'
0034EB 2A 3001 DC X'2A'
0034EC 2C 3002 DC X'2C'
0034ED 2E 3003 BLD30 DC X'2E'
0034EE 30 3004 DC X'30'
0034EF 32 3005 DC X'32'
0034F0 34 3006 DC X'34'
0034F1 36 3007 DC X'36'
0034F2 38 3008 DC X'38'
0034F3 3A 3009 DC X'3A'
0034F4 3C 3010 DC X'3C'
0034F5 3E 3011 DC X'3E'
0034F6 00 3012 DC X'00'
0034F7 02 3013 DC X'02'
0034F8 04 3014 DC X'04'
0034F9 06 3015 DC X'06'
0034FA 08 3016 DC X'08'
0034FB 0A 3017 DC X'0A'
0034FC 0C 3018 DC X'0C'
0034FD 0E 3019 DC X'0E'
0034FE 10 3020 DC X'10'
0034FF 12 3021 DC X'12'
003500 14 3022 DC X'14'
003501 16 3023 DC X'16'
003502 18 3024 DC X'18'
003503 1A 3025 DC X'1A'
003504 1C 3026 DC X'1C'
003505 1E 3027 DC X'1E'
003506 20 3028 DC X'20'
003507 22 3029 DC X'22'
003508 24 3030 DC X'24'
003509 26 3031 DC X'26'
00350A 28 3032 DC X'28'
00350B 2A 3033 DC X'2A'
00350C 2C 3034 DC X'2C'
00350D 2E 3035 DC X'2E'
00350E 0000000000000000 3036 * PATCH DC 40A (***) PATCH AREA
3037 *
00355E 0000000000000000 3038 * DATA DC 128A (***) DEFECTIVE DATA AREA
00365E 3040 DS F'0'
000000 3041 END

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DECLARED	NAME	ATTRIBUTES AND REFERENCES
1370	\$CONC	ADDRESS. HEX LOCATION(00001BE2) IN CSECT(U7AF0) LENGTH(2)
1439	\$CONX	1583 ADDRESS. HEX LOCATION(00001C78) IN CSECT(U7AF0) LENGTH(1)
1412	\$ERR\$	1753 ADDRESS. HEX LOCATION(00001C16) IN CSECT(U7AF0) LENGTH(6) 1584 1587 1670 1689 1691 1706 1761 1763 1797 1826 1841 1859 1861 1863 1855 1878 1882 1884 1898 1902 1906 1908 1922 1924 1927 1936 1934
193	\$INTL	1961 1984 2160 2162 ADDRESS. HEX LOCATION(00001986) IN CSECT(U7AF0) LENGTH(2)
158	\$IOIN	1287 1379 ADDRESS. HEX LOCATION(00001948) IN CSECT(U7AF0) LENGTH(2)
159	\$ISB	1141 1201 1281 1318 1381 ADDRESS. HEX LOCATION(0000194A) IN CSECT(U7AF0) LENGTH(2)
143	\$LE	1142 1282 1323 1382 ABSOLUTE. HEX VALUE(00000026)
478	\$RDID	1147 1289 ADDRESS. HEX LOCATION(00001A74) IN CSECT(U7AF0) LENGTH(6)
496	\$RDIM	1796 1877 1897 ADDRESS. HEX LOCATION(00001AAC) IN CSECT(U7AF0) LENGTH(6)
481	\$RKEW	1609 1705 ADDRESS. HEX LOCATION(00001A7C) IN CSECT(U7AF0) LENGTH(6)
472	\$SEEK	1883 1905 1953 ADDRESS. HEX LOCATION(00001A64) IN CSECT(U7AF0) LENGTH(6)
157	\$TUID	1688 1760 1858 ADDRESS. HEX LOCATION(00001946) IN CSECT(U7AF0) LENGTH(2)
492	\$WKEW	203 1436 1474 ADDRESS. HEX LOCATION(00001A9E) IN CSECT(U7AF0) LENGTH(6)
2165	\$WRID	1921 ADDRESS. HEX LOCATION(00002BEE) IN CSECT(U7AF0) LENGTH(6)
488	\$WSEC	2159 ADDRESS. HEX LOCATION(00001A90) IN CSECT(U7AF0) LENGTH(6)
67	@DCADD1	1862 1926 ADDRESS. HEX LOCATION(000018EA) IN CSECT(U7AF0) LENGTH(2)
68	@DCADD2	1433 ADDRESS. HEX LOCATION(000018EC) IN CSECT(U7AF0) LENGTH(2)
51	@ETOH	1434 ADDRESS. HEX LOCATION(00001820) IN CSECT(U7AF0) LENGTH(2)
77	@MSGWTR	1572 ADDRESS. HEX LOCATION(000018F8) IN CSECT(U7AF0) LENGTH(4)
71	@OUT	64 ADDRESS. HEX LOCATION(000018F2) IN CSECT(U7AF0) LENGTH(2)
55	@OUTIN	80 82 88 89 94 95 ADDRESS. HEX LOCATION(00001828) IN CSECT(U7AF0) LENGTH(2)
70	@OUT1	1570 ADDRESS. HEX LOCATION(000018F0) IN CSECT(U7AF0) LENGTH(2)
73	ABMSG	93 ADDRESS. HEX LOCATION(000018F6) IN CSECT(U7AF0) LENGTH(2)
1930	ASIGR	94 ADDRESS. HEX LOCATION(00002314) IN CSECT(U7AF0) LENGTH(4)
1960	ASMD0	1758 1925 ADDRESS. HEX LOCATION(0000237C) IN CSECT(U7AF0) LENGTH(4)
1934	ASMD1	1934 ADDRESS. HEX LOCATION(00002318) IN CSECT(U7AF0) LENGTH(4)
1940	ASMD2	1614 1710 ADDRESS. HEX LOCATION(0000232E) IN CSECT(U7AF0) LENGTH(4)
1947	ASMD3	1946 ADDRESS. HEX LOCATION(00002348) IN CSECT(U7AF0) LENGTH(2)
1945	ASMD4	1944 ADDRESS. HEX LOCATION(00002340) IN CSECT(U7AF0) LENGTH(6)
1957	ASMD5	1958 ADDRESS. HEX LOCATION(0000236E) IN CSECT(U7AF0) LENGTH(6)
1959	ASMD9	1956 ADDRESS. HEX LOCATION(00002376) IN CSECT(U7AF0) LENGTH(6)
1926	ASME3	1942 ADDRESS. HEX LOCATION(0000230A) IN CSECT(U7AF0) LENGTH(4)
1982	ASMM5	1917 ADDRESS. HEX LOCATION(000023A4) IN CSECT(U7AF0) LENGTH(4)
1893	ASMX2	1886 ADDRESS. HEX LOCATION(00002290) IN CSECT(U7AF0) LENGTH(6)
1890	ASMX4	1880 ADDRESS. HEX LOCATION(00002286) IN CSECT(U7AF0) LENGTH(2)
1914	ASM12	1888 1909 ADDRESS. HEX LOCATION(000022DA) IN CSECT(U7AF0) LENGTH(6)
1581	ASSGN	1912 ADDRESS. HEX LOCATION(00001E2E) IN CSECT(U7AF0) LENGTH(6)
1758	ASSIG	1579 ADDRESS. HEX LOCATION(00002090) IN CSECT(U7AF0) LENGTH(4)
49	ASSIGN	1717 1744 ADDRESS. HEX LOCATION(00001816) IN CSECT(U7AF0) LENGTH(8)
1910	ASXX2	2169 ADDRESS. HEX LOCATION(000022CA) IN CSECT(U7AF0) LENGTH(6)
1991	AVLID	1892 1894 1900 ADDRESS. HEX LOCATION(000023D8) IN CSECT(U7AF0) LENGTH(2)
1444	BEGIN	1850 1866 ADDRESS. HEX LOCATION(00001C82) IN CSECT(U7AF0) LENGTH(2)
1469	BIT0080	1465 ABSOLUTE. HEX VALUE(00000080)
2980	BLD00	1435 ADDRESS. HEX LOCATION(000034D6) IN CSECT(U7AF0) LENGTH(1)
2988	BLD10	1660 ADDRESS. HEX LOCATION(000034DE) IN CSECT(U7AF0) LENGTH(1)
2996	BLD20	1658 ADDRESS. HEX LOCATION(000034E6) IN CSECT(U7AF0) LENGTH(1)
3004	BLD30	1662 ADDRESS. HEX LOCATION(000034EE) IN CSECT(U7AF0) LENGTH(1)
1970	BLFN	1664 ADDRESS. HEX LOCATION(00002390) IN CSECT(U7AF0) LENGTH(2)
1464	BUFPT	1618 ADDRESS. HEX LOCATION(00001DDE) IN CSECT(U7AF0) LENGTH(2)
106	B48	1420 ABSOLUTE. HEX VALUE(00000010)
107	B49	1544 ABSOLUTE. HEX VALUE(00000011)
108	B50	1545 ABSOLUTE. HEX VALUE(00000012)
109	B51	1546 ABSOLUTE. HEX VALUE(00000013)
110	B52	1548 ABSOLUTE. HEX VALUE(00000014)

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DECLARED	NAME	ATTRIBUTES AND REFERENCES
111	B53	ABSOLUTE. HEX VALUE(00000015)
112	B54	1550 ABSOLUTE. HEX VALUE(00000016)
113	B55	1551 ABSOLUTE. HEX VALUE(00000017)
114	B56	1552 ABSOLUTE. HEX VALUE(00000018)
115	B57	1553 ABSOLUTE. HEX VALUE(00000019)
116	B58	1554 ABSOLUTE. HEX VALUE(0000001A)
2057	CB07	1547 ADDRESS. HEX LOCATION(00002AD6) IN CSECT(U7AF0) LENGTH(2)
2058	CB15	2021 ADDRESS. HEX LOCATION(00002AD8) IN CSECT(U7AF0) LENGTH(2)
2059	CB23	2029 ADDRESS. HEX LOCATION(00002ADA) IN CSECT(U7AF0) LENGTH(2)
2060	CB40	2037 ADDRESS. HEX LOCATION(00002ADC) IN CSECT(U7AF0) LENGTH(2)
147	CE	2019 2027 2035 ABSOLUTE. HEX VALUE(0000002A)
2976	CEND2	1126 1240 1310 ADDRESS. HEX LOCATION(000034C8) IN CSECT(U7AF0) LENGTH(2)
231	CICB	2976 ABSOLUTE. HEX VALUE(00000014)
324	CLDCB	1376 ADDRESS. HEX LOCATION(000019A8) IN CSECT(U7AF0) LENGTH(2)
2025	CNVT1	475 ADDRESS. HEX LOCATION(00002A22) IN CSECT(U7AF0) LENGTH(6)
2027	CNVT2	2022 ADDRESS. HEX LOCATION(00002A2A) IN CSECT(U7AF0) LENGTH(6)
2033	CNVT3	2018 ADDRESS. HEX LOCATION(00002A42) IN CSECT(U7AF0) LENGTH(6)
2035	CNVT4	2030 ADDRESS. HEX LOCATION(00002A4A) IN CSECT(U7AF0) LENGTH(6)
2041	CNVT5	2016 ADDRESS. HEX LOCATION(00002A62) IN CSECT(U7AF0) LENGTH(6)
2042	CNVT6	2038 ADDRESS. HEX LOCATION(00002A68) IN CSECT(U7AF0) LENGTH(6)
2045	CNVT9	2010 2014 2024 2026 2032 2034 2040 ADDRESS. HEX LOCATION(00002A76) IN CSECT(U7AF0) LENGTH(4)
2005	CONVT	2020 2028 2036 2043 ADDRESS. HEX LOCATION(000029DC) IN CSECT(U7AF0) LENGTH(6)
145	CS	1784 1874 ABSOLUTE. HEX VALUE(00000028)
146	CSA	1127 1130 1238 1279 1308 ABSOLUTE. HEX VALUE(00000029)
176	CSBUF	1313 ADDRESS. HEX LOCATION(00001966) IN CSECT(U7AF0) LENGTH(1)
374	CSDCB	381 1138 ADDRESS. HEX LOCATION(000019F8) IN CSECT(U7AF0) LENGTH(2)
181	CSTL5	1128 ADDRESS. HEX LOCATION(0000196E) IN CSECT(U7AF0) LENGTH(2)
182	CSTL6	1588 1592 ADDRESS. HEX LOCATION(00001970) IN CSECT(U7AF0) LENGTH(2)
2588	C1000	1881 1901 1937 ADDRESS. HEX LOCATION(00002F1C) IN CSECT(U7AF0) LENGTH(4)
2625	C1100	1615 1733 ADDRESS. HEX LOCATION(00002FA0) IN CSECT(U7AF0) LENGTH(4)
1554	C64	1737 ABSOLUTE. HEX VALUE(00000019)
3039	DATA	1565 1608 1695 1701 1723 2103 2107 ADDRESS. HEX LOCATION(0000355E) IN CSECT(U7AF0) LENGTH(2)
166	DCBUF	414 ADDRESS. HEX LOCATION(00001956) IN CSECT(U7AF0) LENGTH(1)
1465	DC2PT	1733 ADDRESS. HEX LOCATION(00001DE0) IN CSECT(U7AF0) LENGTH(2)
48	DEVADD	77 1434 ADDRESS. HEX LOCATION(00001814) IN CSECT(U7AF0) LENGTH(2)
47	DEVTAB	53 196 1331 1340 1440 1574 1577 ADDRESS. HEX LOCATION(00001812) IN CSECT(U7AF0) LENGTH(2)
161	DEV1	43 2168 ADDRESS. HEX LOCATION(0000194E) IN CSECT(U7AF0) LENGTH(2)
164	DEV4	165 1372 ADDRESS. HEX LOCATION(00001954) IN CSECT(U7AF0) LENGTH(2)
312	DGDCB	1241 1242 ADDRESS. HEX LOCATION(00001998) IN CSECT(U7AF0) LENGTH(2)
1551	DIS	1766 ABSOLUTE. HEX VALUE(00000016)
259	EIGHT	1562 1868 1889 1895 1911 ABSOLUTE. HEX VALUE(00000008)
138	ER	84 86 ABSOLUTE. HEX VALUE(00000021)
1961	ER22	1144 1165 1248 1290 1315 1611 1690 1707 1762 ADDRESS. HEX LOCATION(00002380) IN CSECT(U7AF0) LENGTH(4)
236	ETOH	1798 1860 1864 1879 1885 1899 1907 1923 1928 ABSOLUTE. HEX VALUE(00000019)
217	EXIT	1938 ABSOLUTE. HEX VALUE(00000006)
2168	EXIT1	1573 ABSOLUTE. HEX VALUE(00000006)
1467	FAKETU	1297 ADDRESS. HEX LOCATION(00002BF8) IN CSECT(U7AF0) LENGTH(4)
1547	FD	1581 ADDRESS. HEX LOCATION(00001DE4) IN CSECT(U7AF0) LENGTH(2)
1967	FGSEC	1433 ABSOLUTE. HEX VALUE(0000001A)
2515	FSTID	1558 1771 1802 ADDRESS. HEX LOCATION(0000238A) IN CSECT(U7AF0) LENGTH(2)
1546	FXD	1601 1605 2086 2092 2094 2096 2102 2108 2109 ADDRESS. HEX LOCATION(00002E12) IN CSECT(U7AF0) LENGTH(1)
1968	HDCYL	403 2125 ABSOLUTE. HEX VALUE(00000012)
1972	HDD0	1557 1567 1594 1602 1734 1786 2077 2100 ADDRESS. HEX LOCATION(0000238C) IN CSECT(U7AF0) LENGTH(2)
1966	HEADS	1600 1604 1607 1616 1624 1648 1650 1674 1687 ADDRESS. HEX LOCATION(00002388) IN CSECT(U7AF0) LENGTH(2)

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DECLARED	NAME	ATTRIBUTES AND REFERENCES
1473	HEBLK	1590 1591 1750 1807 2069 ADDRESS. HEX LOCATION(00001DE6) IN CSECT(U7AF0) LENGTH(2)
237	HTOE	1413 ABSOLUTE. HEX VALUE(0000001A)
213	IDLE	1414 ABSOLUTE. HEX VALUE(00000002)
2526	IDO A	1159 1161 ADDRESS. HEX LOCATION(00002E3A) IN CSECT(U7AF0) LENGTH(4)
2527	IDO B	2314 ADDRESS. HEX LOCATION(00002E3E) IN CSECT(U7AF0) LENGTH(4)
2528	IDO C	2323 ADDRESS. HEX LOCATION(00002E42) IN CSECT(U7AF0) LENGTH(4)
2529	IDO D	2332 ADDRESS. HEX LOCATION(00002E46) IN CSECT(U7AF0) LENGTH(4)
2530	IDO E	2341 ADDRESS. HEX LOCATION(00002E4A) IN CSECT(U7AF0) LENGTH(4)
2531	IDO F	2350 ADDRESS. HEX LOCATION(00002E4E) IN CSECT(U7AF0) LENGTH(4)
2516	IDO 0	2359 ADDRESS. HEX LOCATION(00002E12) IN CSECT(U7AF0) LENGTH(4)
2517	IDO 1	498 1613 1621 1623 1666 1673 1682 2224 ADDRESS. HEX LOCATION(00002E16) IN CSECT(U7AF0) LENGTH(4)
2518	IDO 2	2233 ADDRESS. HEX LOCATION(00002E1A) IN CSECT(U7AF0) LENGTH(4)
2519	IDO 3	2242 ADDRESS. HEX LOCATION(00002E1E) IN CSECT(U7AF0) LENGTH(4)
2520	IDO 4	2251 ADDRESS. HEX LOCATION(00002E22) IN CSECT(U7AF0) LENGTH(4)
2521	IDO 5	2260 ADDRESS. HEX LOCATION(00002E26) IN CSECT(U7AF0) LENGTH(4)
2522	IDO 6	2269 ADDRESS. HEX LOCATION(00002E2A) IN CSECT(U7AF0) LENGTH(4)
2523	IDO 7	2278 ADDRESS. HEX LOCATION(00002E2E) IN CSECT(U7AF0) LENGTH(4)
2524	IDO 8	2287 ADDRESS. HEX LOCATION(00002E32) IN CSECT(U7AF0) LENGTH(4)
2525	IDO 9	2296 ADDRESS. HEX LOCATION(00002E36) IN CSECT(U7AF0) LENGTH(4)
2542	ID1 A	2305 ADDRESS. HEX LOCATION(00002E7A) IN CSECT(U7AF0) LENGTH(4)
2543	ID1 B	2458 ADDRESS. HEX LOCATION(00002E7E) IN CSECT(U7AF0) LENGTH(4)
2544	ID1 C	2467 ADDRESS. HEX LOCATION(00002E82) IN CSECT(U7AF0) LENGTH(4)
2545	ID1 D	2476 ADDRESS. HEX LOCATION(00002E86) IN CSECT(U7AF0) LENGTH(4)
2546	ID1 E	2485 ADDRESS. HEX LOCATION(00002E8A) IN CSECT(U7AF0) LENGTH(4)
2547	ID1 F	2494 ADDRESS. HEX LOCATION(00002E8E) IN CSECT(U7AF0) LENGTH(4)
2532	ID1 0	2503 ADDRESS. HEX LOCATION(00002E52) IN CSECT(U7AF0) LENGTH(4)
2533	ID1 1	2368 ADDRESS. HEX LOCATION(00002E56) IN CSECT(U7AF0) LENGTH(4)
2534	ID1 2	2377 ADDRESS. HEX LOCATION(00002E5A) IN CSECT(U7AF0) LENGTH(4)
2535	ID1 3	2386 ADDRESS. HEX LOCATION(00002E5E) IN CSECT(U7AF0) LENGTH(4)
2536	ID1 4	2395 ADDRESS. HEX LOCATION(00002E62) IN CSECT(U7AF0) LENGTH(4)
2537	ID1 5	2404 ADDRESS. HEX LOCATION(00002E66) IN CSECT(U7AF0) LENGTH(4)
2538	ID1 6	2413 ADDRESS. HEX LOCATION(00002E6A) IN CSECT(U7AF0) LENGTH(4)
2539	ID1 7	2422 ADDRESS. HEX LOCATION(00002E6E) IN CSECT(U7AF0) LENGTH(4)
2540	ID1 8	2431 ADDRESS. HEX LOCATION(00002E72) IN CSECT(U7AF0) LENGTH(4)
2541	ID1 9	2440 ADDRESS. HEX LOCATION(00002E76) IN CSECT(U7AF0) LENGTH(4)
2548	ID2 0	2449 ADDRESS. HEX LOCATION(00002E92) IN CSECT(U7AF0) LENGTH(4)
140	IN	2512 ABSOLUTE. HEX VALUE(00000023)
59	INAREA	1145 1157 1278 ADDRESS. HEX LOCATION(00001830) IN CSECT(U7AF0) LENGTH(2)
1548	INC	52 56 ABSOLUTE. HEX VALUE(00000013)
1340	INTBL	1559 1835 1844 ADDRESS. HEX LOCATION(00001BDA) IN CSECT(U7AF0) LENGTH(2)
1235	INTER	1375 ADDRESS. HEX LOCATION(00001B3E) IN CSECT(U7AF0) LENGTH(2)
1244	INTES	1342 ADDRESS. HEX LOCATION(00001B56) IN CSECT(U7AF0) LENGTH(2)
1248	INTET	1239 ADDRESS. HEX LOCATION(00001B5E) IN CSECT(U7AF0) LENGTH(2)
1275	INTOK	1245 ADDRESS. HEX LOCATION(00001B62) IN CSECT(U7AF0) LENGTH(2)
1297	INTRX	1341 ADDRESS. HEX LOCATION(00001B92) IN CSECT(U7AF0) LENGTH(2)
1278	INTR1	1292 1295 ADDRESS. HEX LOCATION(00001B6A) IN CSECT(U7AF0) LENGTH(2)
1283	INTR2	1243 1247 1249 ADDRESS. HEX LOCATION(00001B78) IN CSECT(U7AF0) LENGTH(1)
1291	INTR3	1280 ADDRESS. HEX LOCATION(00001B86) IN CSECT(U7AF0) LENGTH(2)
1331	IOBLK	1288 ADDRESS. HEX LOCATION(00001BCE) IN CSECT(U7AF0) LENGTH(2)
1333	IODCB	1146 1380 ADDRESS. HEX LOCATION(00001BD2) IN CSECT(U7AF0) LENGTH(2)
1334	IOMOD	472 475 478 481 488 492 496 1128 1134 ADDRESS. HEX LOCATION(00001BD4) IN CSECT(U7AF0) LENGTH(2)
2550	LASTID	1120 1123 1129 ADDRESS. HEX LOCATION(00002E96) IN CSECT(U7AF0) LENGTH(2)
441	LGSEC	2550 ADDRESS. HEX LOCATION(00001A5C) IN CSECT(U7AF0) LENGTH(2)
1450	LINE1	1765 1767 1783 1873 2006 2042 ADDRESS. HEX LOCATION(00001CBA) IN CSECT(U7AF0) LENGTH(40)
1550	LST	1421 ABSOLUTE. HEX VALUE(00000015)

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DECLARED	NAME	ATTRIBUTES AND REFERENCES
160	LSTIO	1561 ADDRESS. HEX LOCATION(0000194C) IN CSECT(U7AF0) LENGTH(2)
1987	MESS8	1132 1383 ADDRESS. HEX LOCATION(000023B0) IN CSECT(U7AF0) LENGTH(2)
1988	MESS9	1982 ADDRESS. HEX LOCATION(000023B2) IN CSECT(U7AF0) LENGTH(32)
137	MI	1987 ABSOLUTE. HEX VALUE(00000020)
1545	MINC	1293 ABSOLUTE. HEX VALUE(00000011)
61	MSG	1556 1823 1831 1833 ADDRESS. HEX LOCATION(00001834) IN CSECT(U7AF0) LENGTH(49)
87	MSGWTR1	55 ADDRESS. HEX LOCATION(0000191A) IN CSECT(U7AF0) LENGTH(2)
1424	MVBUF	92 ADDRESS. HEX LOCATION(00001C46) IN CSECT(U7AF0) LENGTH(2)
1965	NCYLN	1428 1431 ADDRESS. HEX LOCATION(00002386) IN CSECT(U7AF0) LENGTH(2)
1964	NCYLP	1775 1777 1779 1812 1825 1827 1838 ADDRESS. HEX LOCATION(00002384) IN CSECT(U7AF0) LENGTH(2)
149	NG	1776 1780 1814 1816 1820 1840 1842 ABSOLUTE. HEX VALUE(0000002C)
144	NI	1296 ABSOLUTE. HEX VALUE(00000027)
1595	NOFXD	1151 ADDRESS. HEX LOCATION(00001E62) IN CSECT(U7AF0) LENGTH(6)
102	OPTN1	1593 ADDRESS. HEX LOCATION(00001940) IN CSECT(U7AF0) LENGTH(2)
125	OPTN3	1237 1277 1582 ADDRESS. HEX LOCATION(00001944) IN CSECT(U7AF0) LENGTH(2)
211	OUT	1326 1374 ABSOLUTE. HEX VALUE(00000000)
212	OUTIN	83 90 96 1983 ABSOLUTE. HEX VALUE(00000001)
442	PHYSC	1571 ADDRESS. HEX LOCATION(00001A5E) IN CSECT(U7AF0) LENGTH(2)
40	PID	1785 1875 2008 2019 2021 2023 2025 2027 2029 2031 2033 2035 2037 2039 2041 2044 ADDRESS. HEX LOCATION(00001800) IN CSECT(U7AF0) LENGTH(4)
1468	PIDMSG10	81 1432 ABSOLUTE. HEX VALUE(0000F1F0)
1544	PINC	1432 ABSOLUTE. HEX VALUE(00000010)
223	PREP	1555 1804 1818 1821 1829 ABSOLUTE. HEX VALUE(0000000C)
1549	RASN	1384 ABSOLUTE. HEX VALUE(00000014)
440	RAY	1560 ADDRESS. HEX LOCATION(00001A5A) IN CSECT(U7AF0) LENGTH(2)
1994	RBUF	1613 1709 1943 1945 1950 1957 ADDRESS. HEX LOCATION(000025DC) IN CSECT(U7AF0) LENGTH(2)
407	RDCB	1598 ADDRESS. HEX LOCATION(00001A28) IN CSECT(U7AF0) LENGTH(2)
1683	REPTT	1598 ADDRESS. HEX LOCATION(00001FA4) IN CSECT(U7AF0) LENGTH(4)
230	RICB	1686 ABSOLUTE. HEX VALUE(00000013)
429	RKDCB	1441 ADDRESS. HEX LOCATION(00001A48) IN CSECT(U7AF0) LENGTH(2)
396	RMDCB	481 1596 1872 1876 1904 1948 1950 1951 1952 1959 ADDRESS. HEX LOCATION(00001A18) IN CSECT(U7AF0) LENGTH(2)
2978	RSBA	496 1606 1607 1703 1704 1952 2109 ADDRESS. HEX LOCATION(000034CA) IN CSECT(U7AF0) LENGTH(2)
339	RSDCB	316 333 343 355 367 389 400 411 422 433 2221 2230 2239 2248 2257 2266 2275 2284 2293 2302 2311 2320 2329 2338 2347 2356 2365 2374 2383 2392 2401 2410 2419 2428 2437 2446 2455 2464 2473 2482 2491 2500 2509 ADDRESS. HEX LOCATION(000019C8) IN CSECT(U7AF0) LENGTH(2)
0	R0	478 1595 1781 1782 1785 1788 1793 1795 1800 1809 1827 1842 1852 1869 1871 1875 1876 1891 1896 1910 REGISTER. HEX VALUE(00000000)
0	R1	1601 2124 2134 REGISTER. HEX VALUE(00000001)
0	R2	77 78 79 80 84 87 88 91 1421 1424 1427 1430 1577 1578 1640 1644 1647 1682 1683 1684 1712 1713 1715 1716 1718 1719 1733 1737 1739 1741 1743 1745 1746 2006 2007 2008 REGISTER. HEX VALUE(00000002)
0	R3	79 85 87 1426 1427 1616 1617 1618 1619 1637 1646 1939 1941 1947 2082 2083 2084 2088 2090 2123 2130 2130 2130 2131 2132 2144 REGISTER. HEX VALUE(00000003)
0	R4	482 485 497 500 1120 1133 1136 1137 1140 1142 1199 1200 1201 1235 1236 1242 1246 1275 1276 1281 1294 1326 1371 1373 1374 1382 1419 1420 1424 1436 1615 1619 1622 1623 1632 1634 1636 1637 1638 1641 1642 1647 1650 1651 1652 1654 1656 1666 1667 1668 1673 1674 1674 1675 1678 1679 1680 1772 1773 1774 1775 1776 1788 1789 1790 1791 2011 2012 2013 2015 2017 2067 2068 2069 2071 2072 2073 2074 2098 2099 2105 2125 2126 2128 2131 2133 2143 REGISTER. HEX VALUE(00000004)
0	R5	86 92 1126 1127 1130 1144 1145 1147 1148 1151 1157 1165 1237 1238 1240 1244 1248 1277 1278 1279 1289 1290 1291 1293 1296 1306 1308 1310 1313 1315 1555 1556 1557 1558 1559 1560 1561 1562 1563 1564 1565 1566 1567 1582 1594 1602 1608 1611 1690 1695 1701 1707 1723 1734 1762 1771 1786 1798 1802 1804 1818 1821 1823 1829 1831 1833 1835 1844 1860 1864 1868 1879 1885 1889 1890 1895 1899 1903 1907 1911 1916 1923 1928 1955 2077 2100 2103 2107 2161 REGISTER. HEX VALUE(00000005)
0	R5	483 485 498 500 1134 1136 1138 1140 1156 1163 1285 1286 1287 1318 1319 1321 1323 1372 1373 1418 1431 1621 1622 1624 1625 1626 1628 1630 1658 1660 1662 1664 1667 1669 1940 1947

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0	R6	1948 1949 REGISTER. HEX VALUE(00000006) 1132 1152 1166 1202 1307 1312 1314 1322 1325 1327 1377 1383 1382 1423 1428 1429 1583 1586 1609 1614 1688 1705 1710 1717 1744 1758 1760 1796 1800 1801 1805 1807 1858 1862 1877 1883 1897 1905 1921 1926 1934 1935 1953 2005 2066 2121 2122 2130 2158 2159
0	R7	REGISTER. HEX VALUE(00000007) 82 89 95 204 484 499 1135 1139 1146 1241 1282 1370 1375 1380 1413 1422 1425 1437 1440 1570 1572 1620 1692 1693 1694 1722 1784 1874 1982 2168 2169
1990	SAVID	ADDRESS. HEX LOCATION(000023D4) IN CSECT(U7AF0)) LENGTH(2)
2048	SAVREGS	ADDRESS. HEX LOCATION(00002A7A) IN CSECT(U7AF0)) LENGTH(2)
2052	SAVRGS	ADDRESS. HEX LOCATION(00002AA8) IN CSECT(U7AF0)) LENGTH(2)
1975	SAV1	ADDRESS. HEX LOCATION(0000239E) IN CSECT(U7AF0)) LENGTH(2)
1971	SCINP	ADDRESS. HEX LOCATION(00002392) IN CSECT(U7AF0)) LENGTH(2)
165	SCTID	ADDRESS. HEX LOCATION(0000194E) IN CSECT(U7AF0)) LENGTH(2)
482	SCT1	ADDRESS. HEX LOCATION(00001A82) IN CSECT(U7AF0)) LENGTH(2)
1974	SCT32	ADDRESS. HEX LOCATION(0000239C) IN CSECT(U7AF0)) LENGTH(2)
2552	SD00	ADDRESS. HEX LOCATION(00002E98) IN CSECT(U7AF0)) LENGTH(4)
2121	SETWR	ADDRESS. HEX LOCATION(00002B78) IN CSECT(U7AF0)) LENGTH(6)
2126	SET10	ADDRESS. HEX LOCATION(00002B8C) IN CSECT(U7AF0)) LENGTH(2)
2130	SET15	ADDRESS. HEX LOCATION(00002B96) IN CSECT(U7AF0)) LENGTH(2)
2138	SET25	ADDRESS. HEX LOCATION(00002BB6) IN CSECT(U7AF0)) LENGTH(6)
2131	SET27	ADDRESS. HEX LOCATION(00002B98) IN CSECT(U7AF0)) LENGTH(6)
2141	SET30	ADDRESS. HEX LOCATION(00002BC4) IN CSECT(U7AF0)) LENGTH(6)
2143	SET35	ADDRESS. HEX LOCATION(00002BCE) IN CSECT(U7AF0)) LENGTH(4)
363	SKDCB	ADDRESS. HEX LOCATION(000019E8) IN CSECT(U7AF0)) LENGTH(2)
1977	SKEW	ADDRESS. HEX LOCATION(000023A0) IN CSECT(U7AF0)) LENGTH(2)
1552	SKW	ABSOLUTE. HEX VALUE(00000017) 1566 1890 1903 1916
1591	SMLF1	ADDRESS. HEX LOCATION(00001E52) IN CSECT(U7AF0)) LENGTH(6)
221	START	ABSOLUTE. HEX VALUE(0000000A) 1149
1606	STR22	ADDRESS. HEX LOCATION(00001E94) IN CSECT(U7AF0)) LENGTH(6)
1607	STR23	ADDRESS. HEX LOCATION(00001E9A) IN CSECT(U7AF0)) LENGTH(6)
1648	STR40	ADDRESS. HEX LOCATION(00001F24) IN CSECT(U7AF0)) LENGTH(6)
1646	STR41	ADDRESS. HEX LOCATION(00001F1A) IN CSECT(U7AF0)) LENGTH(6)
1641	STR42	ADDRESS. HEX LOCATION(00001F08) IN CSECT(U7AF0)) LENGTH(4)
1703	STT3	ADDRESS. HEX LOCATION(00001FE0) IN CSECT(U7AF0)) LENGTH(6)
1615	STT23	ADDRESS. HEX LOCATION(00001EB6) IN CSECT(U7AF0)) LENGTH(4)
1711	STT24	ADDRESS. HEX LOCATION(00002000) IN CSECT(U7AF0)) LENGTH(6)
69	SUPSTAT	ADDRESS. HEX LOCATION(000018EE) IN CSECT(U7AF0)) LENGTH(2)
2051	SVREG	ADDRESS. HEX LOCATION(00002AA8) IN CSECT(U7AF0)) LENGTH(1)
2050	SVREGA	ADDRESS. HEX LOCATION(00002A80) IN CSECT(U7AF0)) LENGTH(2)
2055	SVRG	ADDRESS. HEX LOCATION(00002AD6) IN CSECT(U7AF0)) LENGTH(1)
2054	SVRGA	ADDRESS. HEX LOCATION(00002AAE) IN CSECT(U7AF0)) LENGTH(2)
1739	TC01	ADDRESS. HEX LOCATION(00002054) IN CSECT(U7AF0)) LENGTH(4)
218	TERM	ABSOLUTE. HEX VALUE(00000007) 1748
1637	TTR5	ADDRESS. HEX LOCATION(00001EFA) IN CSECT(U7AF0)) LENGTH(2)
1667	TTSST	ADDRESS. HEX LOCATION(00001F62) IN CSECT(U7AF0)) LENGTH(2)
1665	TTST	ADDRESS. HEX LOCATION(00001F58) IN CSECT(U7AF0)) LENGTH(6)
1674	TTTST	ADDRESS. HEX LOCATION(00001F7E) IN CSECT(U7AF0)) LENGTH(4)
1660	TT00	ADDRESS. HEX LOCATION(00001F48) IN CSECT(U7AF0)) LENGTH(4)
1662	TT20	ADDRESS. HEX LOCATION(00001F4E) IN CSECT(U7AF0)) LENGTH(4)
1664	TT30	ADDRESS. HEX LOCATION(00001F54) IN CSECT(U7AF0)) LENGTH(4)
1634	TT33	ADDRESS. HEX LOCATION(00001EF0) IN CSECT(U7AF0)) LENGTH(4)
1636	TT44	ADDRESS. HEX LOCATION(00001EF6) IN CSECT(U7AF0)) LENGTH(4)
1918	TT708	ADDRESS. HEX LOCATION(000022EA) IN CSECT(U7AF0)) LENGTH(6)
64	TUMSGWTR	ADDRESS. HEX LOCATION(00001866) IN CSECT(U7AF0)) LENGTH(2)
194	TURTN	ADDRESS. HEX LOCATION(00001988) IN CSECT(U7AF0)) LENGTH(2)

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65	TUSTATUS	ADDRESS. HEX LOCATION(00001868) IN CSECT(U7AF0)) LENGTH(2)
66	TUWORK	ADDRESS. HEX LOCATION(0000186A) IN CSECT(U7AF0)) LENGTH(1)
253	TWO	ABSOLUTE. HEX VALUE(00000002) 78
50	TYP7A	ADDRESS. HEX LOCATION(0000181E) IN CSECT(U7AF0)) LENGTH(1)
1781	T023	ADDRESS. HEX LOCATION(000020F2) IN CSECT(U7AF0)) LENGTH(6)
1753	T6902	ADDRESS. HEX LOCATION(0000208C) IN CSECT(U7AF0)) LENGTH(4)
1738	T6903	ADDRESS. HEX LOCATION(0000204E) IN CSECT(U7AF0)) LENGTH(6)
1746	T6904	ADDRESS. HEX LOCATION(00002070) IN CSECT(U7AF0)) LENGTH(4)
1569	T7A95	ADDRESS. HEX LOCATION(00001E06) IN CSECT(U7AF0)) LENGTH(4)
1570	T7A951	ADDRESS. HEX LOCATION(00001E0A) IN CSECT(U7AF0)) LENGTH(4)
1577	T7A952	ADDRESS. HEX LOCATION(00001E24) IN CSECT(U7AF0)) LENGTH(4)
1772	T702	ADDRESS. HEX LOCATION(000020CE) IN CSECT(U7AF0)) LENGTH(4)
1786	T703	ADDRESS. HEX LOCATION(0000210E) IN CSECT(U7AF0)) LENGTH(2)
1795	T7033	ADDRESS. HEX LOCATION(00002128) IN CSECT(U7AF0)) LENGTH(6)
1796	T704	ADDRESS. HEX LOCATION(0000212E) IN CSECT(U7AF0)) LENGTH(4)
1807	T7044	ADDRESS. HEX LOCATION(0000214C) IN CSECT(U7AF0)) LENGTH(4)
1800	T706	ADDRESS. HEX LOCATION(00002138) IN CSECT(U7AF0)) LENGTH(4)
1848	T7066	ADDRESS. HEX LOCATION(000021D0) IN CSECT(U7AF0)) LENGTH(6)
1812	T709	ADDRESS. HEX LOCATION(0000215E) IN CSECT(U7AF0)) LENGTH(6)
1829	T710	ADDRESS. HEX LOCATION(0000219C) IN CSECT(U7AF0)) LENGTH(2)
1831	T711	ADDRESS. HEX LOCATION(000021A0) IN CSECT(U7AF0)) LENGTH(2)
1818	T712	ADDRESS. HEX LOCATION(00002176) IN CSECT(U7AF0)) LENGTH(2)
1833	T713	ADDRESS. HEX LOCATION(000021A4) IN CSECT(U7AF0)) LENGTH(2)
1820	T714	ADDRESS. HEX LOCATION(0000217A) IN CSECT(U7AF0)) LENGTH(6)
1840	T715	ADDRESS. HEX LOCATION(000021B6) IN CSECT(U7AF0)) LENGTH(6)
1844	T716	ADDRESS. HEX LOCATION(000021CA) IN CSECT(U7AF0)) LENGTH(2)
1827	T717	ADDRESS. HEX LOCATION(00002192) IN CSECT(U7AF0)) LENGTH(6)
1838	T718	ADDRESS. HEX LOCATION(000021AE) IN CSECT(U7AF0)) LENGTH(6)
1842	T719	ADDRESS. HEX LOCATION(000021C0) IN CSECT(U7AF0)) LENGTH(6)
1821	T720	ADDRESS. HEX LOCATION(00002180) IN CSECT(U7AF0)) LENGTH(2)
2066	UPDTE	ADDRESS. HEX LOCATION(00002ADE) IN CSECT(U7AF0)) LENGTH(6)
2081	UPD05	ADDRESS. HEX LOCATION(00002B10) IN CSECT(U7AF0)) LENGTH(6)
2088	UPD06	ADDRESS. HEX LOCATION(00002B28) IN CSECT(U7AF0)) LENGTH(4)
2094	UPD07	ADDRESS. HEX LOCATION(00002B3C) IN CSECT(U7AF0)) LENGTH(6)
2096	UPD08	ADDRESS. HEX LOCATION(00002B44) IN CSECT(U7AF0)) LENGTH(6)
2098	UPD20	ADDRESS. HEX LOCATION(00002B4C) IN CSECT(U7AF0)) LENGTH(2)
2102	UPD54	ADDRESS. HEX LOCATION(00002B56) IN CSECT(U7AF0)) LENGTH(6)
2103	UPD55	ADDRESS. HEX LOCATION(00002B5C) IN CSECT(U7AF0)) LENGTH(2)
2108	UPD56	ADDRESS. HEX LOCATION(00002B68) IN CSECT(U7AF0)) LENGTH(6)
39	U7AF0	CSECT. START(00001800) LENGTH(7776) ESDID(1)
1719	WALT1	ADDRESS. HEX LOCATION(00002020) IN CSECT(U7AF0)) LENGTH(4)
1713	WALT2	ADDRESS. HEX LOCATION(0000200A) IN CSECT(U7AF0)) LENGTH(4)
418	WKDCB	ADDRESS. HEX LOCATION(00001A38) IN CSECT(U7AF0)) LENGTH(2)
2158	WRALL	ADDRESS. HEX LOCATION(00002B08) IN CSECT(U7AF0)) LENGTH(6)
1992	WRBUF	ADDRESS. HEX LOCATION(000023DC) IN CSECT(U7AF0)) LENGTH(2)
351	WRDCB	ADDRESS. HEX LOCATION(000019D8) IN CSECT(U7AF0)) LENGTH(2)
443	WRSID	ADDRESS. HEX LOCATION(00001A60) IN CSECT(U7AF0)) LENGTH(2)
1553	WRT	ABSOLUTE. HEX VALUE(00000018) 1867 1913 1915 1919
2217	WRT00	ADDRESS. HEX LOCATION(00002C02) IN CSECT(U7AF0)) LENGTH(2)
2505	WRT20	ADDRESS. HEX LOCATION(00002E02) IN CSECT(U7AF0)) LENGTH(2)
329	WSDCB	ADDRESS. HEX LOCATION(000019B8) IN CSECT(U7AF0)) LENGTH(2)
141	XE	ABSOLUTE. HEX VALUE(00000024) 1244 1306
139	XI	ABSOLUTE. HEX VALUE(00000022) 1148 1291
1120	XIO	ADDRESS. HEX LOCATION(00001AC0) IN CSECT(U7AF0)) LENGTH(4)
1306	XIOCK	ADDRESS. HEX LOCATION(00001B94) IN CSECT(U7AF0)) LENGTH(2)

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DECLARED	NAME	ATTRIBUTES AND REFERENCES
1313	XIOCO	1158 ADDRESS. HEX LOCATION(00001BA6) IN CSECT(U7AF0) LENGTH(2)
1323	XIOCQ	1311 ADDRESS. HEX LOCATION(00001BBC) IN CSECT(U7AF0) LENGTH(4)
1128	XIOCS	1320 ADDRESS. HEX LOCATION(00001AD2) IN CSECT(U7AF0) LENGTH(6)
1315	XIOCV	1324 1586 1935 ADDRESS. HEX LOCATION(00001BAA) IN CSECT(U7AF0) LENGTH(2)
1326	XIOCX	1309 ADDRESS. HEX LOCATION(00001BC8) IN CSECT(U7AF0) LENGTH(4)
1199	XIOER	1316 ADDRESS. HEX LOCATION(00001B32) IN CSECT(U7AF0) LENGTH(2)
1132	XIO1	1332 ADDRESS. HEX LOCATION(00001AE2) IN CSECT(U7AF0) LENGTH(4)
1145	XIO2	1121 1124 ADDRESS. HEX LOCATION(00001B08) IN CSECT(U7AF0) LENGTH(2)
1157	XIO8	1131 ADDRESS. HEX LOCATION(00001B1E) IN CSECT(U7AF0) LENGTH(2)
439	ZERO0	1164 ADDRESS. HEX LOCATION(00001A58) IN CSECT(U7AF0) LENGTH(2) 1638 1642 1646 1848

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