

# TEST

TEST 9 BIC,BIC,BIT  
MD-11-DOI-A

EP-DOI-A-DL-A

NOV 1976

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FICHE 1 OF 1

MADE IN USA



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### IDENTIFICATION

PRODUCT CODE: MAINDEC-11-DOAA TO DOLA-D  
PRODUCT NAME: FIRST LEVEL 1-12  
DATE CREATED: 17 MARCH 1970  
MAINTAINER: DIAGNOSTIC GROUP  
AUTHOR: JOHN HITTELL

THIS GROUP OF TESTS CONSIST OF:

| PROCESSOR TEST      | MAINDEC |
|---------------------|---------|
| TEST 1 BRANCH       | 11-DOAA |
| 2 CON BRANCH        | 11-DOBA |
| 3 UNARY             | 11-DOCA |
| 4 UNARY AND BINARYS | 11-DODA |
| 5 ROTATE/SHIFT      | 11-DOEA |
| 6 COMPARE           | 11-DOFA |
| 7 COMPARE NOT       | 11-DOGA |
| 8 MOVE              | 11-DOHA |
| 9 BIS,BIC AND BIT   | 11-DOIA |
| 10 ADD              | 11-DOJA |
| 11 SUBTRACT         | 11-DOKA |
| 12 JMP              | 11-DOLA |



THIS IS A GROUP OF 12 TESTS THAT INCREMENTALLY TEST AND ISOLATE SIMPLE MALFUNCTIONS OF THE PDP 11. THE TESTS SHOULD BE RUN IN THE INDICATED NUMERICAL SEQUENCE. THE SEQUENCE IS 1. BRANCH 2. CONDITIONAL BRANCH 3. UNARY 4. UNARY AND BINARYS 5. ROTATE/SHIFT 6. COMPARE (EQUALITY) 7. COMPARE (NON EQUALITY) 8. MOVE 9. BIT SET, CLEAR AND TEST 10. ADD 11. SUBTRACT 12. JUMP

## 2. REQUIREMENTS

PDP-11/20 STANDARD COMPUTER

2.2.1 PROGRAM STORAGE - THE PROGRAMS USE ALL OF A 4KW MEMORY WITH THE EXCEPTION OF 17500 TO 17776 (WHICH IS RESERVED FOR THE BOOT AND ABSOLUTE LOADER).

### 3.1 METHOD

PROCEDURE FOR NORMAL ABSOLUTE TAPES SHOULD BE FOLLOWED.

#### 4.1 CONTROL SWITCH SETTING

ALL PROGRAMS START AT ADDRESS 200.

(A) 200 = START AND RESTART ADDRESS

LOAD PROGRAM INTO MEMORY. (BOTTOM 4K)  
SET SWITCH REGISTER TO STARTING ADDRESS. (200)  
LOAD ADDRESS.  
PRESS START.  
THE PROGRAM WILL LOOP, AND RING A BELL AFTER A FIXED NUMBER  
OF ITERATIONS.



5. OPERATING PROCEDURE
- 5.1 OPERATIONAL SWITCH SETTINGS
- 5.1.1 NO SWITCHES ARE USED
- 5.1.3
- 5.2 SUBROUTINE ABSTRACTS
- 5.2.1 BEGIN SA 200
- 5.2.2 SCOPE  
-----  
IS A "NOP" THAT IS PLACED BETWEEN EACH SUBTEST  
IN THE INSTRUCTION SECTION. IF A SCOPE LOOP IS NEEDED,  
INSERT A BRANCH TO THE PREVIOUS SCOPE LOCATION  
AT THE CURRENT SCOPE LOCATION. (NOTE NOP=240)
- 5.2.3 HLT  
---  
INDICATES THE UNIQUE ADDRESS THAT TAGS THE  
FAILING SUBTEST. THE INCORRECT DATA AT THE  
TIME OF THE FAILURE MAY OR MAY NOT BE  
DISPLAYED IN REGISTER ZERO, WHICH IS THE DATA  
REGISTER ON A HALT.
- 5.3 PROGRAM AND/OR OPERATOR ACTION
- 5.3.1 LOADING AND STARTING AT 200 STARTS THE TEST. IF  
AN ERROR IS DETECTED, THERE WILL BE A HALT.  
WHEN A HALT OCCURS AND IT IS NECESSARY TO SCOPE ON  
IT, PLACE INSERT A BRANCH INSTRUCTION IN THE  
SCOPE LOCATION FOLLOWING THE HALT. THE BRANCH  
INSTRUCTION SHOULD BRANCH YOU TO THE PREVIOUS  
SCOPE LOCATION.
6. ERRORS
- 6.1 ALL ERRORS WILL CAUSE A HALT.
- 6.2 ERROR RECOVERY  
  
ON TRAP ERRORS - RESTART AT 200.  
DEPRESS CONTINUE TO CONTINUE TEST
7. RESTRICTIONS
- 7.1 STARTING RESTRICTION  
  
NONE

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## 8. MISCELLANEOUS

IF A HALT OCCURS IN THE TRAP OR INTERRUPT VECTOR AREA, REGISTER SIX SHOULD BE EXAMINED TO DETERMINE ITS CONTENTS. THEN USE REGISTER SIX CONTENTS AS AN ADDRESS TO DETERMINE THE LOCATION THE PROGRAM WAS AT, WHEN THE INTERRUPT OR TRAP OCCURRED. (MEMORY AS SPECIFIED BY R6 CONTAINS THE PC OF THE INSTRUCTION FOLLOWING THE INSTRUCTION WHERE THE TRAP OCCURED)

## 8.1 EXECUTION TIME

## TIME BETWEEN BELLS

|          |    |   |         |
|----------|----|---|---------|
| FOR TAPE | 1  | 5 | MINUTES |
| FOR TAPE | 2  | 5 | MINUTES |
| FOR TAPE | 3  | 5 | MINUTES |
| FOR TAPE | 4  | 5 | MINUTES |
| FOR TAPE | 5  | 5 | MINUTES |
| FOR TAPE | 6  | 5 | MINUTES |
| FOR TAPE | 7  | 5 | MINUTES |
| FOR TAPE | 8  | 5 | MINUTES |
| FOR TAPE | 9  | 5 | MINUTES |
| FOR TAPE | 10 | 5 | MINUTES |
| FOR TAPE | 11 | 5 | MINUTES |
| FOR TAPE | 12 | 5 | MINUTES |

## 9. PROGRAM DESCRIPTION

TEST 1 THIS IS A TEST OF THE UNCONDITIONAL BRANCH INSTRUCTION. IT PROVES THAT A LONG PROGRAM CAN BE LOADED AND THE INSTRUCTIONS CAN BE EXECUTED THROUGHOUT MEMORY.

TEST 2 THIS IS A CONDITIONAL BRANCH TEST USING ALL OF THE CONDITIONAL BRANCH INSTRUCTIONS. IT TESTS THAT ALL COMBINATIONS OF CONDITION CODES ARE RESPONDED TO CORRECTLY. (THE CONDITION CODES ARE MANIPULATED WITH THE MICRO-PROGRAM OPERATIONS.)

TEST 3 THIS IS A TEST OF THE UNARY INSTRUCTIONS AND THEIR EFFECTS UPON THE CONDITION CODES ONLY. MOSTLY REGISTER OPERATIONS.

TEST 4 THIS IS A COMBINED USE OF UNARY AND BINARY INSTRUCTIONS TESTING THE RESULTS AND THE CONDITION CODES.

TEST 5 THIS TEST ROTATE AND SHIFT INSTRUCTION, BOTH THE REGISTERS AND MEMORY LOCATIONS, WORD AND BYTE, ARE TESTED.

TEST 6 THIS IS A TEST OF THE COMPARE INSTRUCTIONS FOR



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EQUALITY. ALL CONDITIONAL BRANCHES THAT WILL  
BRANCH ON ANY FORM OF EQUALITY ARE ALSO TESTED.  
BOTH WORD AND BYTE OPERATIONS ARE USED.



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TEST 7 COMPARE NOT. THIS IS A TEST OF THE COMPARE INSTRUCTIONS WHERE NO VALUES ARE EQUAL. HERE BRANCHES FOR NOT EQUAL, GREATER THAN AND LESS THAN, ETC., ARE TESTED.

TEST 8 CHECKS THE MOVE INSTRUCTION BOTH TO MEMORY AND  
AND REGISTERS.

**TEST 9 CHECK THE BIS, BIC AND BIT INSTRUCTION BOTH TO MEMORY AND TO REGISTERS.**

**TEST 10 TESTS THE ADD INSTRUCTION.**

**TEST 11 TESTS THE SUBTRACT INSTRUCTION.**

**TEST 12 TEST OF THE JUMP INSTRUCTION IN MOST MODES.**

NOTE THAT STACK OPERATION AND INSTRUCTIONS THAT USE THEM ARE NOT TESTED IN THIS GROUP OF TEST.

## 10. LISTING

11. FLOW CHART(S)

[illegible]



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:TEST 9 PDP-11
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:TEST BIT INSTRUCTION FOR WORD AND BYTES

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```
R1=X1
R2=X2
R3=X3
R4=X4
R5=X5
R6=X6
R0=X0
RN=XN
HLT=0
SCOPE=240
```

[illegible][illegible]



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;TEST FOR EQUAL WORD AND BYTE
000200 000240 177777 000000 SCOPE
000200 000240 BIT 0177777,00 ;SHOULD NOT SET Z
000200 000240 BEQ .+4 ;BIT 177777 0 FAILED TO SET Z
000200 000240 HLT
000200 000240 SCOPE
000200 000240 BIT 00,0177777 ;SHOULD NOT SET Z
000200 000240 BEQ .+4 ;BIT 0 177777 FAILED TO SET Z
000200 000240 HLT
000200 000240 SCOPE
000200 000240 BIT 00,00 ;SHOULD NOT SET Z
000200 000240 BEQ .+4 ;BIT 0 0 FAILED TO SET Z
000200 000240 HLT
000200 000240 SCOPE
000200 000240 BIT 052525,0125252 ;SHOULD NOT SET Z
000200 000240 BEQ .+4 ;BIT 052525 125252 FAILED TO SET Z
000200 000240 HLT
000200 000240 SCOPE
000200 000240 BIT 125252,052525 ;SHOULD NOT SET Z
000200 000240 BEQ .+4 ;BIT 125252 052525 FAILED TO SET Z
000200 000240 HLT
000200 000240 SCOPE
000200 000240 BIT 177777,00 ;SHOULD NOT SET Z
000200 000240 BEQ .+4 ;BIT 177777 0 FAILED TO SET Z
000200 000240 HLT
000200 000240 SCOPE
000200 000240 BIT 00,0177777 ;SHOULD NOT SET Z
000200 000240 BEQ .+4 ;BIT 0 177777 FAILED TO SET Z
000200 000240 HLT
000200 000240 SCOPE
000200 000240 BIT 00,00 ;SHOULD NOT SET Z
000200 000240 BEQ .+4 ;BIT 0 0 FAILED TO SET Z
000200 000240 HLT
000200 000240 SCOPE
000200 000240 BIT 000377,0177400 ;SHOULD NOT SET Z
000200 000240 BEQ .+4 ;BIT 000377 177400 FAILED TO SET Z
000200 000240 HLT
000200 000240 SCOPE
000200 000240 BIT 177400,0377 ;SHOULD NOT SET Z
000200 000240 BEQ .+4 ;BIT 177400 377 FAILED TO SET Z
000200 000240 HLT

N=1
M=177776
000370 000240 SCOPE
000370 000240 BIT 0177776,01 ;SHOULD NOT SET Z
000370 000240 BEQ .+4 ;BIT 177776 1 FAILED TO SET Z
000370 000240 HLT
000370 000240 SCOPE
000370 000240 BIT 01,0177776 ;SHOULD NOT SET Z
000370 000240 BEQ .+4 ;BIT 1 177776 FAILED TO SET Z
000370 000240 HLT
N=N+N
M=M+M+1
000420 000240 SCOPE

```



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|     |        |         |        |        |         |              |                                 |
|-----|--------|---------|--------|--------|---------|--------------|---------------------------------|
| 366 | 000422 | 032727  | 177775 | 000002 | BIT     | 0177775,02   | ;SHOULD NOT SET Z               |
| 367 | 000423 | 001401  |        |        | BEQ     | .+4          |                                 |
| 368 | 000424 | 000000  |        |        | HLT     |              | ;BIT 177775 2 FAILED TO SET Z   |
| 369 | 000425 | 000240  |        |        | SCOPE   |              |                                 |
| 370 | 000426 | 032727  | 000002 | 177775 | BIT     | 02,0177775   | ;SHOULD NOT SET Z               |
| 371 | 000427 | 001401  |        |        | BEQ     | .+4          |                                 |
| 372 | 000428 | 000000  |        |        | HLT     |              | ;BIT 2 177775 FAILED TO SET Z   |
| 373 | 000429 | 000000  |        |        | N=N+N   |              |                                 |
| 374 | 000430 | 177773  |        |        | M=M+M+1 |              |                                 |
| 375 | 000431 | 000240  | 177773 | 000004 | SCOPE   |              | ;SHOULD NOT SET Z               |
| 376 | 000432 | 032727  |        |        | BIT     | 0177773,04   |                                 |
| 377 | 000433 | 001401  |        |        | BEQ     | .+4          | ;BIT 177773 4 FAILED TO SET Z   |
| 378 | 000434 | 000000  |        |        | HLT     |              |                                 |
| 379 | 000435 | 000240  |        |        | SCOPE   |              |                                 |
| 380 | 000436 | 032727  | 000004 | 177773 | BIT     | 04,0177773   | ;SHOULD NOT SET Z               |
| 381 | 000437 | 001401  |        |        | BEQ     | .+4          |                                 |
| 382 | 000438 | 000000  |        |        | HLT     |              | ;BIT 4 177773 FAILED TO SET Z   |
| 383 | 000439 | 000010  |        |        | N=N+N   |              |                                 |
| 384 | 000440 | 177767  |        |        | M=M+M+1 |              |                                 |
| 385 | 000441 | 000240  | 177767 | 000010 | SCOPE   |              | ;SHOULD NOT SET Z               |
| 386 | 000442 | 032727  |        |        | BIT     | 0177767,010  |                                 |
| 387 | 000443 | 001401  |        |        | BEQ     | .+4          | ;BIT 177767 10 FAILED TO SET Z  |
| 388 | 000444 | 000000  |        |        | HLT     |              |                                 |
| 389 | 000445 | 000240  |        |        | SCOPE   |              |                                 |
| 390 | 000446 | 032727  | 000010 | 177767 | BIT     | 010,0177767  | ;SHOULD NOT SET Z               |
| 391 | 000447 | 001401  |        |        | BEQ     | .+4          |                                 |
| 392 | 000448 | 000000  |        |        | HLT     |              | ;BIT 10 177767 FAILED TO SET Z  |
| 393 | 000449 | 000020  |        |        | N=N+N   |              |                                 |
| 394 | 000450 | 177757  |        |        | M=M+M+1 |              |                                 |
| 395 | 000451 | 000240  | 177757 | 000020 | SCOPE   |              | ;SHOULD NOT SET Z               |
| 396 | 000452 | 032727  |        |        | BIT     | 0177757,020  |                                 |
| 397 | 000453 | 001401  |        |        | BEQ     | .+4          | ;BIT 177757 20 FAILED TO SET Z  |
| 398 | 000454 | 000000  |        |        | HLT     |              |                                 |
| 399 | 000455 | 000240  |        |        | SCOPE   |              |                                 |
| 400 | 000456 | 032727  | 000020 | 177757 | BIT     | 020,0177757  | ;SHOULD NOT SET Z               |
| 401 | 000457 | 001401  |        |        | BEQ     | .+4          |                                 |
| 402 | 000458 | 000000  |        |        | HLT     |              | ;BIT 20 177757 FAILED TO SET Z  |
| 403 | 000459 | 000040  |        |        | N=N+N   |              |                                 |
| 404 | 000460 | 177737  |        |        | M=M+M+1 |              |                                 |
| 405 | 000461 | 000240  | 177737 | 000040 | SCOPE   |              | ;SHOULD NOT SET Z               |
| 406 | 000462 | 032727  |        |        | BIT     | 0177737,040  |                                 |
| 407 | 000463 | 001401  |        |        | BEQ     | .+4          | ;BIT 177737 40 FAILED TO SET Z  |
| 408 | 000464 | 000000  |        |        | HLT     |              |                                 |
| 409 | 000465 | 000240  |        |        | SCOPE   |              |                                 |
| 410 | 000466 | 032727  | 000040 | 177737 | BIT     | 040,0177737  | ;SHOULD NOT SET Z               |
| 411 | 000467 | 001401  |        |        | BEQ     | .+4          |                                 |
| 412 | 000468 | 000000  |        |        | HLT     |              | ;BIT 40 177737 FAILED TO SET Z  |
| 413 | 000469 | 0000100 |        |        | N=N+N   |              |                                 |
| 414 | 000470 | 177677  |        |        | M=M+M+1 |              |                                 |
| 415 | 000471 | 000240  | 177677 | 000100 | SCOPE   |              | ;SHOULD NOT SET Z               |
| 416 | 000472 | 032727  |        |        | BIT     | 0177677,0100 |                                 |
| 417 | 000473 | 001401  |        |        | BEQ     | .+4          | ;BIT 177677 100 FAILED TO SET Z |
| 418 | 000474 | 000000  |        |        | HLT     |              |                                 |
| 419 | 000475 | 000240  |        |        | SCOPE   |              |                                 |
| 420 | 000476 | 032727  | 000100 | 177677 | BIT     | 0100,0177677 | ;SHOULD NOT SET Z               |
| 421 | 000477 | 001401  |        |        | BEQ     | .+4          |                                 |



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;BIT 100 177677 FAILED TO SET Z  
 ;SHOULD NOT SET Z  
 ;BIT 177577 200 FAILED TO SET Z  
 ;SHOULD NOT SET Z  
 ;BIT 200 177577 FAILED TO SET Z  
 ;SHOULD NOT SET Z  
 ;BIT 177377 400 FAILED TO SET Z  
 ;SHOULD NOT SET Z  
 ;BIT 400 177377 FAILED TO SET Z  
 ;SHOULD NOT SET Z  
 ;BIT 176777 1000 FAILED TO SET Z  
 ;SHOULD NOT SET Z  
 ;BIT 1000 176777 FAILED TO SET Z  
 ;SHOULD NOT SET Z  
 ;BIT 175777 2000 FAILED TO SET Z  
 ;SHOULD NOT SET Z  
 ;BIT 2000 175777 FAILED TO SET Z  
 ;SHOULD NOT SET Z  
 ;BIT 173777 4000 FAILED TO SET Z  
 ;SHOULD NOT SET Z  
 ;BIT 4000 173777 FAILED TO SET Z  
 ;SHOULD NOT SET Z



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|                                   |        |        |               |         |                  |  |                                   |
|-----------------------------------|--------|--------|---------------|---------|------------------|--|-----------------------------------|
| 479                               | 001042 | 000000 |               | HLT     |                  |  |                                   |
| 480                               | 001044 | 000240 |               | SCOPE   |                  |  |                                   |
| 481                               | 001046 | 032727 | 010000 167777 | BIT     | #10000, #167777  |  | ;BIT 167777 10000 FAILED TO SET Z |
| 482                               | 001054 | 001401 |               | BEG     | .+4              |  | ;SHOULD NOT SET Z                 |
| 483                               | 001056 | 000000 |               | HLT     |                  |  | ;BIT 10000 167777 FAILED TO SET Z |
| 484                               |        | 020000 |               | N=N+N   |                  |  |                                   |
| 485                               |        | 157777 |               | M=M+M+1 |                  |  |                                   |
| 486                               | 001060 | 000240 |               | SCOPE   |                  |  |                                   |
| 487                               | 001062 | 032727 | 157777 020000 | BIT     | #157777, #20000  |  | ;SHOULD NOT SET Z                 |
| 488                               | 001070 | 001401 |               | BEG     | .+4              |  | ;BIT 157777 20000 FAILED TO SET Z |
| 489                               | 001072 | 000000 |               | HLT     |                  |  |                                   |
| 490                               | 001074 | 000240 |               | SCOPE   |                  |  |                                   |
| 491                               | 001076 | 032727 | 020000 157777 | BIT     | #20000, #157777  |  | ;SHOULD NOT SET Z                 |
| 492                               | 001104 | 001401 |               | BEG     | .+4              |  | ;BIT 20000 157777 FAILED TO SET Z |
| 493                               | 001106 | 000000 |               | HLT     |                  |  |                                   |
| 494                               |        | 040000 |               | N=N+N   |                  |  |                                   |
| 495                               |        | 137777 |               | M=M+M+1 |                  |  |                                   |
| 496                               | 001110 | 000240 |               | SCOPE   |                  |  |                                   |
| 497                               | 001112 | 032727 | 137777 040000 | BIT     | #137777, #40000  |  | ;SHOULD NOT SET Z                 |
| 498                               | 001120 | 001401 |               | BEG     | .+4              |  | ;BIT 137777 40000 FAILED TO SET Z |
| 499                               | 001122 | 000000 |               | HLT     |                  |  |                                   |
| 500                               | 001124 | 000240 |               | SCOPE   |                  |  |                                   |
| 501                               | 001126 | 032727 | 040000 137777 | BIT     | #40000, #137777  |  | ;SHOULD NOT SET Z                 |
| 502                               | 001134 | 001401 |               | BEG     | .+4              |  | ;BIT 40000 137777 FAILED TO SET Z |
| 503                               | 001136 | 000000 |               | HLT     |                  |  |                                   |
| 504                               |        | 100000 |               | N=N+N   |                  |  |                                   |
| 505                               |        | 077777 |               | M=M+M+1 |                  |  |                                   |
| ;TEST FOR NOT EQUAL WORD AND BYTE |        |        |               |         |                  |  |                                   |
| 506                               | 001140 | 000240 |               | SCOPE   |                  |  |                                   |
| 507                               | 001142 | 032727 | 177777 177777 | BIT     | #177777, #177777 |  | ;SHOULD NOT SET Z                 |
| 508                               | 001144 | 001001 |               | BNE     | .+4              |  | ;FALSE SET OF Z                   |
| 509                               | 001146 | 000000 |               | HLT     |                  |  |                                   |
| 510                               | 001148 | 000240 |               | SCOPE   |                  |  |                                   |
| 511                               | 001150 | 032727 | 177400 177777 | BIT     | #177400, #177777 |  | ;SHOULD NOT SET Z                 |
| 512                               | 001152 | 001001 |               | BNE     | .+4              |  | ;FALSE SET OF Z                   |
| 513                               | 001154 | 000000 |               | HLT     |                  |  |                                   |
| 514                               | 001156 | 000240 |               | SCOPE   |                  |  |                                   |
| 515                               | 001158 | 032727 | 000377 177777 | BIT     | #377, #-1        |  | ;SHOULD NOT SET Z                 |
| 516                               | 001160 | 001001 |               | BNE     | .+4              |  | ;FALSE SET OF Z                   |
| 517                               | 001162 | 000000 |               | HLT     |                  |  |                                   |
| 518                               | 001164 | 000240 |               | SCOPE   |                  |  |                                   |
| 519                               | 001166 | 032727 | 177777 177400 | BIT     | #-1, #177400     |  | ;SHOULD NOT SET Z                 |
| 520                               | 001168 | 001001 |               | BNE     | .+4              |  | ;FALSE SET OF Z                   |
| 521                               | 001170 | 000000 |               | HLT     |                  |  |                                   |
| 522                               | 001172 | 000240 |               | SCOPE   |                  |  |                                   |
| 523                               | 001174 | 032727 | 177777 000377 | BIT     | #-1, #377        |  | ;SHOULD NOT SET Z                 |
| 524                               | 001176 | 001001 |               | BNE     | .+4              |  | ;FALSE SET OF Z                   |
| 525                               | 001178 | 000000 |               | HLT     |                  |  |                                   |
| 526                               | 001180 | 000240 |               | SCOPE   |                  |  |                                   |
| 527                               | 001182 | 032727 | 177777 177777 | BITB    | #-1, #-1         |  | ;SHOULD NOT SET Z                 |
| 528                               | 001184 | 001001 |               | BNE     | .+4              |  | ;FALSE SET OF Z                   |
| 529                               | 001186 | 000000 |               | HLT     |                  |  |                                   |
| 530                               | 001188 | 000240 |               | SCOPE   |                  |  |                                   |
| 531                               | 001190 | 032727 | 000377 177777 | BITB    | #377, #-1        |  | ;SHOULD NOT SET Z                 |
| 532                               | 001192 | 001001 |               | BNE     | .+4              |  |                                   |



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|     |        |        |               |         |                 |                                   |
|-----|--------|--------|---------------|---------|-----------------|-----------------------------------|
| 478 | 001042 | 000000 |               | HLT     |                 | ;BIT 167777 10000 FAILED TO SET Z |
| 479 | 001044 | 000240 |               | SCOPE   |                 |                                   |
| 480 | 001046 | 032727 | 010000 167777 | BIT     | #10000,#167777  | ;SHOULD NOT SET Z                 |
| 481 | 001054 | 001401 |               | BEQ     | .+4             |                                   |
| 482 | 001056 | 000000 |               | HLT     |                 | ;BIT 10000 167777 FAILED TO SET Z |
| 483 |        | 020000 |               | N=N+N   |                 |                                   |
| 484 |        | 157777 |               | M=M+M+1 |                 |                                   |
| 485 | 001060 | 000240 |               | SCOPE   |                 |                                   |
| 486 | 001062 | 032727 | 157777 020000 | BIT     | #157777,#20000  | ;SHOULD NOT SET Z                 |
| 487 | 001070 | 001401 |               | BEQ     | .+4             |                                   |
| 488 | 001072 | 000000 |               | HLT     |                 | ;BIT 157777 20000 FAILED TO SET Z |
| 489 | 001074 | 000240 |               | SCOPE   |                 |                                   |
| 490 | 001076 | 032727 | 020000 157777 | BIT     | #20000,#157777  | ;SHOULD NOT SET Z                 |
| 491 | 001104 | 001401 |               | BEQ     | .+4             |                                   |
| 492 | 001106 | 000000 |               | HLT     |                 | ;BIT 20000 157777 FAILED TO SET Z |
| 493 |        | 040000 |               | N=N+N   |                 |                                   |
| 494 |        | 137777 |               | M=M+M+1 |                 |                                   |
| 495 | 001110 | 000240 |               | SCOPE   |                 |                                   |
| 496 | 001112 | 032727 | 137777 040000 | BIT     | #137777,#40000  | ;SHOULD NOT SET Z                 |
| 497 | 001120 | 001401 |               | BEQ     | .+4             |                                   |
| 498 | 001122 | 000000 |               | HLT     |                 | ;BIT 137777 40000 FAILED TO SET Z |
| 499 | 001124 | 000240 |               | SCOPE   |                 |                                   |
| 500 | 001126 | 032727 | 040000 137777 | BIT     | #40000,#137777  | ;SHOULD NOT SET Z                 |
| 501 | 001134 | 001401 |               | BEQ     | .+4             |                                   |
| 502 | 001136 | 000000 |               | HLT     |                 | ;BIT 40000 137777 FAILED TO SET Z |
| 503 |        | 100000 |               | N=N+N   |                 |                                   |
| 504 |        | 077777 |               | M=M+M+1 |                 |                                   |
| 505 |        |        |               |         |                 |                                   |
| 506 |        |        |               |         |                 |                                   |
| 507 | 001140 | 000240 |               | SCOPE   |                 |                                   |
| 508 | 001142 | 032727 | 177777 177777 | BIT     | #177777,#177777 | ;SHOULD NOT SET Z                 |
| 509 | 001150 | 001001 |               | BNE     | .+4             |                                   |
| 510 | 001152 | 000000 |               | HLT     |                 | ;FALSE SET OF Z                   |
| 511 | 001154 | 000240 |               | SCOPE   |                 |                                   |
| 512 | 001156 | 032727 | 177400 177777 | BIT     | #177400,#177777 | ;SHOULD NOT SET Z                 |
| 513 | 001164 | 001001 |               | BNE     | .+4             |                                   |
| 514 | 001166 | 000000 |               | HLT     |                 | ;FALSE SET OF Z                   |
| 515 | 001170 | 000240 |               | SCOPE   |                 |                                   |
| 516 | 001172 | 032727 | 000377 177777 | BIT     | #377,#-1        | ;SHOULD NOT SET Z                 |
| 517 | 001200 | 001001 |               | BNE     | .+4             |                                   |
| 518 | 001202 | 000000 |               | HLT     |                 | ;FALSE SET OF Z                   |
| 519 | 001204 | 000240 |               | SCOPE   |                 |                                   |
| 520 | 001206 | 032727 | 177777 177400 | BIT     | #-1,#177400     | ;SHOULD NOT SET Z                 |
| 521 | 001214 | 001001 |               | BNE     | .+4             |                                   |
| 522 | 001216 | 000000 |               | HLT     |                 | ;FALSE SET OF Z                   |
| 523 | 001220 | 000240 |               | SCOPE   |                 |                                   |
| 524 | 001222 | 032727 | 177777 000377 | BIT     | #-1,#377        | ;SHOULD NOT SET Z                 |
| 525 | 001230 | 001001 |               | BNE     | .+4             |                                   |
| 526 | 001232 | 000000 |               | HLT     |                 | ;FALSE SET OF Z                   |
| 527 | 001234 | 000240 |               | SCOPE   |                 |                                   |
| 528 | 001236 | 132727 | 177777 177777 | BITB    | #-1,#-1         | ;SHOULD NOT SET Z                 |
| 529 | 001244 | 001001 |               | BNE     | .+4             |                                   |
| 530 | 001246 | 000000 |               | HLT     |                 | ;FALSE SET OF Z                   |
| 531 | 001250 | 000240 |               | SCOPE   |                 |                                   |
| 532 | 001252 | 132727 | 000377 177777 | BITB    | #277,#-1        | ;SHOULD NOT SET Z                 |
| 533 | 001260 | 001001 |               | BNE     | .+4             |                                   |

;TEST FOR NOT EQUAL WORD AND BYTE



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|        |        |
|--------|--------|
| 001262 | 000000 |
| 001264 | 000040 |
| 001266 | 132727 |
| 001274 | 001001 |
| 001276 | 000000 |
|        | 000001 |
|        | 000001 |

177777 000377

HIT  
SCOPE  
BITB  
LINE  
N=1  
N=1  
#-1 #377  
. +4

;FALSE SET OF Z  
;SHOULD NOT SET Z  
;FALSE SET OF Z



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|     |        |        |               |       |           |                    |
|-----|--------|--------|---------------|-------|-----------|--------------------|
| 541 | 001300 | 000240 |               | SCOPE |           |                    |
| 542 | 001302 | 032727 | 000001 177777 | BIT   | #1, #-1   | ; SHOULD NOT SET Z |
| 543 | 001310 | 001001 |               | BNE   | .+4       |                    |
| 544 | 001312 | 000000 |               | HLT   |           | ; FALSE SET OF Z   |
| 545 | 001314 | 000240 |               | SCOPE |           |                    |
| 546 | 001316 | 032727 | 177777 000001 | BIT   | #-1, #1   | ; SHOULD NOT SET Z |
| 547 | 001324 | 001001 |               | BNE   | .+4       |                    |
| 548 | 001326 | 000000 |               | HLT   |           | ; FALSE SET OF Z   |
| 549 |        | 000002 |               | N=N+N |           |                    |
| 550 | 001330 | 000240 |               | SCOPE |           |                    |
| 551 | 001332 | 032727 | 000002 177777 | BIT   | #2, #-1   | ; SHOULD NOT SET Z |
| 552 | 001340 | 001001 |               | BNE   | .+4       |                    |
| 553 | 001342 | 000000 |               | HLT   |           | ; FALSE SET OF Z   |
| 554 | 001344 | 000240 |               | SCOPE |           |                    |
| 555 | 001346 | 032727 | 177777 000002 | BIT   | #-1, #2   | ; SHOULD NOT SET Z |
| 556 | 001354 | 001001 |               | BNE   | .+4       |                    |
| 557 | 001356 | 000000 |               | HLT   |           | ; FALSE SET OF Z   |
| 558 |        | 000004 |               | N=N+N |           |                    |
| 559 | 001360 | 000240 |               | SCOPE |           |                    |
| 560 | 001362 | 032727 | 000004 177777 | BIT   | #4, #-1   | ; SHOULD NOT SET Z |
| 561 | 001370 | 001001 |               | BNE   | .+4       |                    |
| 562 | 001372 | 000000 |               | HLT   |           | ; FALSE SET OF Z   |
| 563 | 001374 | 000240 |               | SCOPE |           |                    |
| 564 | 001376 | 032727 | 177777 000004 | BIT   | #-1, #4   | ; SHOULD NOT SET Z |
| 565 | 001404 | 001001 |               | BNE   | .+4       |                    |
| 566 | 001406 | 000000 |               | HLT   |           | ; FALSE SET OF Z   |
| 567 |        | 000010 |               | N=N+N |           |                    |
| 568 | 001410 | 000240 |               | SCOPE |           |                    |
| 569 | 001412 | 032727 | 000010 177777 | BIT   | #10, #-1  | ; SHOULD NOT SET Z |
| 570 | 001420 | 001001 |               | BNE   | .+4       |                    |
| 571 | 001422 | 000000 |               | HLT   |           | ; FALSE SET OF Z   |
| 572 | 001424 | 000240 |               | SCOPE |           |                    |
| 573 | 001426 | 032727 | 177777 000010 | BIT   | #-1, #10  | ; SHOULD NOT SET Z |
| 574 | 001434 | 001001 |               | BNE   | .+4       |                    |
| 575 | 001436 | 000000 |               | HLT   |           | ; FALSE SET OF Z   |
| 576 |        | 000020 |               | N=N+N |           |                    |
| 577 | 001440 | 000240 |               | SCOPE |           |                    |
| 578 | 001442 | 032727 | 000020 177777 | BIT   | #20, #-1  | ; SHOULD NOT SET Z |
| 579 | 001450 | 001001 |               | BNE   | .+4       |                    |
| 580 | 001452 | 000000 |               | HLT   |           | ; FALSE SET OF Z   |
| 581 | 001454 | 000240 |               | SCOPE |           |                    |
| 582 | 001456 | 032727 | 177777 000020 | BIT   | #-1, #20  | ; SHOULD NOT SET Z |
| 583 | 001464 | 001001 |               | BNE   | .+4       |                    |
| 584 | 001466 | 000000 |               | HLT   |           | ; FALSE SET OF Z   |
| 585 |        | 000040 |               | N=N+N |           |                    |
| 586 | 001470 | 000240 |               | SCOPE |           |                    |
| 587 | 001472 | 032727 | 000040 177777 | BIT   | #40, #-1  | ; SHOULD NOT SET Z |
| 588 | 001500 | 001001 |               | BNE   | .+4       |                    |
| 589 | 001502 | 000000 |               | HLT   |           | ; FALSE SET OF Z   |
| 590 | 001504 | 000240 |               | SCOPE |           |                    |
| 591 | 001506 | 032727 | 177777 000040 | BIT   | #-1, #40  | ; SHOULD NOT SET Z |
| 592 | 001514 | 001001 |               | BNE   | .+4       |                    |
| 593 | 001516 | 000000 |               | HLT   |           | ; FALSE SET OF Z   |
| 594 |        | 000100 |               | N=N+N |           |                    |
| 595 | 001520 | 000240 |               | SCOPE |           |                    |
| 596 | 001522 | 032727 | 000100 177777 | BIT   | #100, #-1 | ; SHOULD NOT SET Z |



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|     |        |        |               |       |             |                   |
|-----|--------|--------|---------------|-------|-------------|-------------------|
| 597 | 001530 | 001001 |               | BNE   | .+4         |                   |
| 598 | 001532 | 000000 |               | HLT   |             | ;FALSE SET OF Z   |
| 599 | 001534 | 000240 |               | SCOPE |             |                   |
| 600 | 001536 | 032727 | 177777 000100 | BIT   | #-1, #100   | ;SHOULD NOT SET Z |
| 601 | 001544 | 001001 |               | BNE   | .+4         |                   |
| 602 | 001546 | 000000 |               | HLT   |             | ;FALSE SET OF Z   |
| 603 |        | 000200 |               | N=N+N |             |                   |
| 604 | 001550 | 000240 |               | SCOPE |             |                   |
| 605 | 001552 | 032727 | 000200 177777 | BIT   | #200, #-1   | ;SHOULD NOT SET Z |
| 606 | 001560 | 001001 |               | BNE   | .+4         |                   |
| 607 | 001562 | 000000 |               | HLT   |             | ;FALSE SET OF Z   |
| 608 | 001564 | 000240 |               | SCOPE |             |                   |
| 609 | 001566 | 032727 | 177777 000200 | BIT   | #-1, #200   | ;SHOULD NOT SET Z |
| 610 | 001574 | 001001 |               | BNE   | .+4         |                   |
| 611 | 001576 | 000000 |               | HLT   |             | ;FALSE SET OF Z   |
| 612 |        | 000400 |               | N=N+N |             |                   |
| 613 | 001600 | 000240 |               | SCOPE |             |                   |
| 614 | 001602 | 032727 | 000400 177777 | BIT   | #400, #-1   | ;SHOULD NOT SET Z |
| 615 | 001610 | 001001 |               | BNE   | .+4         |                   |
| 616 | 001612 | 000000 |               | HLT   |             | ;FALSE SET OF Z   |
| 617 | 001614 | 000240 |               | SCOPE |             |                   |
| 618 | 001616 | 032727 | 177777 000400 | BIT   | #-1, #400   | ;SHOULD NOT SET Z |
| 619 | 001624 | 001001 |               | BNE   | .+4         |                   |
| 620 | 001626 | 000000 |               | HLT   |             | ;FALSE SET OF Z   |
| 621 |        | 001000 |               | N=N+N |             |                   |
| 622 | 001630 | 000240 |               | SCOPE |             |                   |
| 623 | 001632 | 032727 | 001000 177777 | BIT   | #1000, #-1  | ;SHOULD NOT SET Z |
| 624 | 001640 | 001001 |               | BNE   | .+4         |                   |
| 625 | 001642 | 000000 |               | HLT   |             | ;FALSE SET OF Z   |
| 626 | 001644 | 000240 |               | SCOPE |             |                   |
| 627 | 001646 | 032727 | 177777 001000 | BIT   | #-1, #1000  | ;SHOULD NOT SET Z |
| 628 | 001654 | 001001 |               | BNE   | .+4         |                   |
| 629 | 001656 | 000000 |               | HLT   |             | ;FALSE SET OF Z   |
| 630 |        | 002000 |               | N=N+N |             |                   |
| 631 | 001660 | 000240 |               | SCOPE |             |                   |
| 632 | 001662 | 032727 | 002000 177777 | BIT   | #2000, #-1  | ;SHOULD NOT SET Z |
| 633 | 001670 | 001001 |               | BNE   | .+4         |                   |
| 634 | 001672 | 000000 |               | HLT   |             | ;FALSE SET OF Z   |
| 635 | 001674 | 000240 |               | SCOPE |             |                   |
| 636 | 001676 | 032727 | 177777 002000 | BIT   | #-1, #2000  | ;SHOULD NOT SET Z |
| 637 | 001704 | 001001 |               | BNE   | .+4         |                   |
| 638 | 001706 | 000000 |               | HLT   |             | ;FALSE SET OF Z   |
| 639 |        | 004000 |               | N=N+N |             |                   |
| 640 | 001710 | 000240 |               | SCOPE |             |                   |
| 641 | 001712 | 032727 | 004000 177777 | BIT   | #4000, #-1  | ;SHOULD NOT SET Z |
| 642 | 001720 | 001001 |               | BNE   | .+4         |                   |
| 643 | 001722 | 000000 |               | HLT   |             | ;FALSE SET OF Z   |
| 644 | 001724 | 000240 |               | SCOPE |             |                   |
| 645 | 001726 | 032727 | 177777 004000 | BIT   | #-1, #4000  | ;SHOULD NOT SET Z |
| 646 | 001734 | 001001 |               | BNE   | .+4         |                   |
| 647 | 001736 | 000000 |               | HLT   |             | ;FALSE SET OF Z   |
| 648 |        | 010000 |               | N=N+N |             |                   |
| 649 | 001740 | 000240 |               | SCOPE |             |                   |
| 650 | 001742 | 032727 | 010000 177777 | BIT   | #10000, #-1 | ;SHOULD NOT SET Z |
| 651 | 001750 | 001001 |               | BNE   | .+4         |                   |
| 652 | 001752 | 000000 |               | HLT   |             | ;FALSE SET OF Z   |



|     |        |        |               |       |              |                       |
|-----|--------|--------|---------------|-------|--------------|-----------------------|
| 653 | 001754 | 000240 |               | SCOPE |              |                       |
| 654 | 001756 | 032727 | 177777 010000 | BIT   | #-1, #10000  | ; SHOULD NOT SET Z    |
| 655 | 001764 | 001001 |               | BNE   | .+4          |                       |
| 656 | 001766 | 000000 |               | HLT   |              | ; FALSE SET OF Z      |
| 657 |        | 020000 |               | N=N+N |              |                       |
| 658 | 001770 | 000240 |               | SCOPE |              |                       |
| 659 | 001772 | 032727 | 020000 177777 | BIT   | #20000, #-1  | ; SHOULD NOT SET Z    |
| 660 | 002000 | 001001 |               | BNE   | .+4          |                       |
| 661 | 002002 | 000000 |               | HLT   |              | ; FALSE SET OF Z      |
| 662 | 002004 | 000240 |               | SCOPE |              |                       |
| 663 | 002006 | 032727 | 177777 020000 | BIT   | #-1, #20000  | ; SHOULD NOT SET Z    |
| 664 | 002014 | 001001 |               | BNE   | .+4          |                       |
| 665 | 002016 | 000000 |               | HLT   |              | ; FALSE SET OF Z      |
| 666 |        | 040000 |               | N=N+N |              |                       |
| 667 | 002020 | 000240 |               | SCOPE |              |                       |
| 668 | 002022 | 032727 | 040000 177777 | BIT   | #40000, #-1  | ; SHOULD NOT SET Z    |
| 669 | 002030 | 001001 |               | BNE   | .+4          |                       |
| 670 | 002032 | 000000 |               | HLT   |              | ; FALSE SET OF Z      |
| 671 | 002034 | 000240 |               | SCOPE |              |                       |
| 672 | 002036 | 032727 | 177777 040000 | BIT   | #-1, #40000  | ; SHOULD NOT SET Z    |
| 673 | 002044 | 001001 |               | BNE   | .+4          |                       |
| 674 | 002046 | 000000 |               | HLT   |              | ; FALSE SET OF Z      |
| 675 |        | 100000 |               | N=N+N |              |                       |
| 676 | 002050 | 000240 |               | SCOPE |              |                       |
| 677 | 002052 | 032727 | 100000 177777 | BIT   | #100000, #-1 | ; SHOULD NOT SET Z    |
| 678 | 002060 | 001001 |               | BNE   | .+4          |                       |
| 679 | 002062 | 000000 |               | HLT   |              | ; FALSE SET OF Z      |
| 680 | 002064 | 000240 |               | SCOPE |              |                       |
| 681 | 002066 | 032727 | 177777 100000 | BIT   | #-1, #100000 | ; SHOULD NOT SET Z    |
| 682 | 002074 | 001001 |               | BNE   | .+4          |                       |
| 683 | 002076 | 000000 |               | HLT   |              | ; FALSE SET OF Z      |
| 684 |        | 000000 |               | N=N+N |              |                       |
| 685 |        |        |               |       |              |                       |
| 686 |        | 000000 |               | N=0   |              |                       |
| 687 | 002100 | 000240 |               | SCOPE |              |                       |
| 688 | 002102 | 012700 | 177777        | MOV   | #-1, %N      |                       |
| 689 | 002106 | 032700 | 000000        | BIT   | #0, %N       | ; SHOULD SET Z        |
| 690 | 002112 | 001401 |               | BEQ   | .+4          |                       |
| 691 | 002114 | 000000 |               | HLT   |              | ; BIT FAILED TO SET Z |
| 692 | 002116 | 000240 |               | SCOPE |              |                       |
| 693 | 002120 | 012700 | 000000        | MOV   | #0, %N       |                       |
| 694 | 002124 | 032700 | 177777        | BIT   | #-1, %N      | ; SHOULD SET Z        |
| 695 | 002130 | 001401 |               | BEQ   | .+4          |                       |
| 696 | 002132 | 000000 |               | HLT   |              | ; BIT FAILED TO SET Z |
| 697 |        | 000001 |               | N=N+1 |              |                       |
| 698 | 002134 | 000240 |               | SCOPE |              |                       |
| 699 | 002136 | 012701 | 177777        | MOV   | #-1, %N      |                       |
| 700 | 002142 | 032701 | 000000        | BIT   | #0, %N       | ; SHOULD SET Z        |
| 701 | 002146 | 001401 |               | BEQ   | .+4          |                       |
| 702 | 002150 | 000000 |               | HLT   |              | ; BIT FAILED TO SET Z |
| 703 | 002152 | 000240 |               | SCOPE |              |                       |
| 704 | 002154 | 012701 | 000000        | MOV   | #0, %N       |                       |
| 705 | 002160 | 032701 | 177777        | BIT   | #-1, %N      | ; SHOULD SET Z        |
| 706 | 002164 | 001401 |               | BEQ   | .+4          |                       |
| 707 | 002166 | 000000 |               | HLT   |              | ; BIT FAILED TO SET Z |
| 708 |        | 000002 |               | N=N+1 |              |                       |



| Address | Hex    | Dec    | Assembly        | Comments              |
|---------|--------|--------|-----------------|-----------------------|
| 709     | 002170 | 000240 | SCOPE           |                       |
| 710     | 002172 | 012702 | MOV # -1, %N    |                       |
| 711     | 002176 | 032702 | BIT #0, %N      | ; SHOULD SET Z        |
| 712     | 002202 | 001401 | BEQ .+4         |                       |
| 713     | 002204 | 000000 | HLT             | ; BIT FAILED TO SET Z |
| 714     | 002206 | 000240 | SCOPE           |                       |
| 715     | 002210 | 012702 | MOV #0, %N      |                       |
| 716     | 002214 | 032702 | BIT # -1, %N    | ; SHOULD SET Z        |
| 717     | 002220 | 001401 | BEQ .+4         |                       |
| 718     | 002222 | 000000 | HLT             | ; BIT FAILED TO SET Z |
| 719     |        | 000003 | N=N+1           |                       |
| 720     | 002224 | 000240 | SCOPE           |                       |
| 721     | 002226 | 012703 | MOV # -1, %N    |                       |
| 722     | 002232 | 032703 | BIT #0, %N      | ; SHOULD SET Z        |
| 723     | 002236 | 001401 | BEQ .+4         |                       |
| 724     | 002240 | 000000 | HLT             | ; BIT FAILED TO SET Z |
| 725     | 002242 | 000240 | SCOPE           |                       |
| 726     | 002244 | 012703 | MOV #0, %N      |                       |
| 727     | 002250 | 032703 | BIT # -1, %N    | ; SHOULD SET Z        |
| 728     | 002254 | 001401 | BEQ .+4         |                       |
| 729     | 002256 | 000000 | HLT             | ; BIT FAILED TO SET Z |
| 730     |        | 000004 | N=N+1           |                       |
| 731     | 002260 | 000240 | SCOPE           |                       |
| 732     | 002262 | 012704 | MOV # -1, %N    |                       |
| 733     | 002266 | 032704 | BIT #0, %N      | ; SHOULD SET Z        |
| 734     | 002272 | 001401 | BEQ .+4         |                       |
| 735     | 002274 | 000000 | HLT             | ; BIT FAILED TO SET Z |
| 736     | 002276 | 000240 | SCOPE           |                       |
| 737     | 002300 | 012704 | MOV #0, %N      |                       |
| 738     | 002304 | 032704 | BIT # -1, %N    | ; SHOULD SET Z        |
| 739     | 002310 | 001401 | BEQ .+4         |                       |
| 740     | 002312 | 000000 | HLT             | ; BIT FAILED TO SET Z |
| 741     |        | 000005 | N=N+1           |                       |
| 742     | 002314 | 000240 | SCOPE           |                       |
| 743     | 002316 | 012705 | MOV # -1, %N    |                       |
| 744     | 002322 | 032705 | BIT #0, %N      | ; SHOULD SET Z        |
| 745     | 002326 | 001401 | BEQ .+4         |                       |
| 746     | 002330 | 000000 | HLT             | ; BIT FAILED TO SET Z |
| 747     | 002332 | 000240 | SCOPE           |                       |
| 748     | 002334 | 012705 | MOV #0, %N      |                       |
| 749     | 002340 | 032705 | BIT # -1, %N    | ; SHOULD SET Z        |
| 750     | 002344 | 001401 | BEQ .+4         |                       |
| 751     | 002346 | 000000 | HLT             | ; BIT FAILED TO SET Z |
| 752     |        | 000006 | N=N+1           |                       |
| 753     |        |        |                 |                       |
| 754     |        | 000001 | N=1             |                       |
| 755     |        | 177776 | M=177776        |                       |
| 756     | 002350 | 000240 | SCOPE           |                       |
| 757     | 002352 | 012700 | MOV #1, R0      |                       |
| 758     | 002356 | 032700 | BIT #177776, R0 | ; SHOULD SET Z        |
| 759     | 002362 | 001401 | BEQ .+4         |                       |
| 760     | 002364 | 000000 | HLT             | ; BIT FAILED TO SET Z |
| 761     | 002366 | 000240 | SCOPE           |                       |
| 762     | 002370 | 012700 | MOV #177776, R0 |                       |
| 763     | 002374 | 032700 | BIT #1, R0      | ; SHOULD SET Z        |
| 764     | 002400 | 001401 | BEQ .+4         |                       |



|     |        |        |               |         |              |                      |
|-----|--------|--------|---------------|---------|--------------|----------------------|
| 765 | 002402 | 000000 |               | HLT     |              | ;BIT FAILED TO SET Z |
| 766 | 002404 | 000240 |               | SCOPE   |              |                      |
| 767 | 002406 | 012767 | 000001 011536 | MOV     | #1,TEMP      |                      |
| 768 | 002414 | 032767 | 177776 011530 | BIT     | #177776,TEMP | ; SHOULD SET Z       |
| 769 | 002422 | 001401 |               | BEQ     | .+4          |                      |
| 770 | 002424 | 000000 |               | HLT     |              | ;BIT FAILED TO SET Z |
| 771 | 002426 | 000240 |               | SCOPE   |              |                      |
| 772 | 002430 | 012767 | 177776 011514 | MOV     | #177776,TEMP |                      |
| 773 | 002436 | 032767 | 000001 011506 | BIT     | #1,TEMP      | ; SHOULD SET Z       |
| 774 | 002444 | 001401 |               | BEQ     | .+4          |                      |
| 775 | 002446 | 000000 |               | HLT     |              | ;BIT FAILED TO SET Z |
| 776 |        | 000002 |               | N=N+N   |              |                      |
| 777 |        | 177775 |               | M=M+M+1 |              |                      |
| 778 | 002450 | 000240 |               | SCOPE   |              |                      |
| 779 | 002452 | 012700 | 000002        | MOV     | #2,RO        |                      |
| 780 | 002456 | 032700 | 177775        | BIT     | #177775,RO   | ; SHOULD SET Z       |
| 781 | 002462 | 001401 |               | BEQ     | .+4          |                      |
| 782 | 002464 | 000000 |               | HLT     |              | ;BIT FAILED TO SET Z |
| 783 | 002466 | 000240 |               | SCOPE   |              |                      |
| 784 | 002470 | 012700 | 177775        | MOV     | #177775,RO   |                      |
| 785 | 002474 | 032700 | 000002        | BIT     | #2,RO        | ; SHOULD SET Z       |
| 786 | 002500 | 001401 |               | BEQ     | .+4          |                      |
| 787 | 002502 | 000000 |               | HLT     |              | ;BIT FAILED TO SET Z |
| 788 | 002504 | 000240 |               | SCOPE   |              |                      |
| 789 | 002506 | 012767 | 000002 011436 | MOV     | #2,TEMP      |                      |
| 790 | 002514 | 032767 | 177775 011430 | BIT     | #177775,TEMP | ; SHOULD SET Z       |
| 791 | 002522 | 001401 |               | BEQ     | .+4          |                      |
| 792 | 002524 | 000000 |               | HLT     |              | ;BIT FAILED TO SET Z |
| 793 | 002526 | 000240 |               | SCOPE   |              |                      |
| 794 | 002530 | 012767 | 177775 011414 | MOV     | #177775,TEMP |                      |
| 795 | 002536 | 032767 | 000002 011406 | BIT     | #2,TEMP      | ; SHOULD SET Z       |
| 796 | 002544 | 001401 |               | BEQ     | .+4          |                      |
| 797 | 002546 | 000000 |               | HLT     |              | ;BIT FAILED TO SET Z |
| 798 |        | 000004 |               | N=N+N   |              |                      |
| 799 |        | 177773 |               | M=M+M+1 |              |                      |
| 800 | 002550 | 000240 |               | SCOPE   |              |                      |
| 801 | 002552 | 012700 | 000004        | MOV     | #4,RO        |                      |
| 802 | 002556 | 032700 | 177773        | BIT     | #177773,RO   | ; SHOULD SET Z       |
| 803 | 002562 | 001401 |               | BEQ     | .+4          |                      |
| 804 | 002564 | 000000 |               | HLT     |              | ;BIT FAILED TO SET Z |
| 805 | 002566 | 000240 |               | SCOPE   |              |                      |
| 806 | 002570 | 012700 | 177773        | MOV     | #177773,RO   |                      |
| 807 | 002574 | 032700 | 000004        | BIT     | #4,RO        | ; SHOULD SET Z       |
| 808 | 002600 | 001401 |               | BEQ     | .+4          |                      |
| 809 | 002602 | 000000 |               | HLT     |              | ;BIT FAILED TO SET Z |
| 810 | 002604 | 000240 |               | SCOPE   |              |                      |
| 811 | 002606 | 012767 | 000004 011336 | MOV     | #4,TEMP      |                      |
| 812 | 002614 | 032767 | 177773 011330 | BIT     | #177773,TEMP | ; SHOULD SET Z       |
| 813 | 002622 | 001401 |               | BEQ     | .+4          |                      |
| 814 | 002624 | 000000 |               | HLT     |              | ;BIT FAILED TO SET Z |
| 815 | 002626 | 000240 |               | SCOPE   |              |                      |
| 816 | 002630 | 012767 | 177773 011314 | MOV     | #177773,TEMP |                      |
| 817 | 002636 | 032767 | 000004 011306 | BIT     | #4,TEMP      | ; SHOULD SET Z       |
| 818 | 002644 | 001401 |               | BEQ     | .+4          |                      |
| 819 | 002646 | 000000 |               | HLT     |              | ;BIT FAILED TO SET Z |
| 820 |        | 000010 |               | N=N+N   |              |                      |



|     |        |        |        |        |                  |                      |
|-----|--------|--------|--------|--------|------------------|----------------------|
| 821 |        | 177767 |        |        | M=M+M+1          |                      |
| 822 | 002650 | 000240 |        |        | SCOPE            |                      |
| 823 | 002652 | 012700 | 000010 |        | MOV #10,RO       | ; SHOULD SET Z       |
| 824 | 002656 | 032700 | 177767 |        | BIT #177767,RO   |                      |
| 825 | 002662 | 001401 |        |        | BEQ .+4          | ;BIT FAILED TO SET Z |
| 826 | 002664 | 000000 |        |        | HLT              |                      |
| 827 | 002666 | 000240 |        |        | SCOPE            |                      |
| 828 | 002670 | 012700 | 177767 |        | MOV #177767,RO   | ; SHOULD SET Z       |
| 829 | 002674 | 032700 | 000010 |        | BIT #10,RO       |                      |
| 830 | 002700 | 001401 |        |        | BEQ .+4          | ;BIT FAILED TO SET Z |
| 831 | 002702 | 000000 |        |        | HLT              |                      |
| 832 | 002704 | 000240 |        |        | SCOPE            |                      |
| 833 | 002706 | 012767 | 000010 | 011236 | MOV #10,TEMP     | ; SHOULD SET Z       |
| 834 | 002714 | 032767 | 177767 | 011230 | BIT #177767,TEMP |                      |
| 835 | 002722 | 001401 |        |        | BEQ .+4          | ;BIT FAILED TO SET Z |
| 836 | 002724 | 000000 |        |        | HLT              |                      |
| 837 | 002726 | 000240 |        |        | SCOPE            |                      |
| 838 | 002730 | 012767 | 177767 | 011214 | MOV #177767,TEMP | ; SHOULD SET Z       |
| 839 | 002736 | 032767 | 000010 | 011206 | BIT #10,TEMP     |                      |
| 840 | 002744 | 001401 |        |        | BEQ .+4          | ;BIT FAILED TO SET Z |
| 841 | 002746 | 000000 |        |        | HLT              |                      |
| 842 |        | 000020 |        |        | N=N+N            |                      |
| 843 |        | 177757 |        |        | M=M+M+1          |                      |
| 844 | 002750 | 000240 |        |        | SCOPE            |                      |
| 845 | 002752 | 012700 | 000020 |        | MOV #20,RO       | ; SHOULD SET Z       |
| 846 | 002756 | 032700 | 177757 |        | BIT #177757,RO   |                      |
| 847 | 002762 | 001401 |        |        | BEQ .+4          | ;BIT FAILED TO SET Z |
| 848 | 002764 | 000000 |        |        | HLT              |                      |
| 849 | 002766 | 000240 |        |        | SCOPE            |                      |
| 850 | 002770 | 012700 | 177757 |        | MOV #177757,RO   | ; SHOULD SET Z       |
| 851 | 002774 | 032700 | 000020 |        | BIT #20,RO       |                      |
| 852 | 003000 | 001401 |        |        | BEQ .+4          | ;BIT FAILED TO SET Z |
| 853 | 003002 | 000000 |        |        | HLT              |                      |
| 854 | 003004 | 000240 |        |        | SCOPE            |                      |
| 855 | 003006 | 012767 | 000020 | 011136 | MOV #20,TEMP     | ; SHOULD SET Z       |
| 856 | 003014 | 032767 | 177757 | 011130 | BIT #177757,TEMP |                      |
| 857 | 003022 | 001401 |        |        | BEQ .+4          | ;BIT FAILED TO SET Z |
| 858 | 003024 | 000000 |        |        | HLT              |                      |
| 859 | 003026 | 000240 |        |        | SCOPE            |                      |
| 860 | 003030 | 012767 | 177757 | 011114 | MOV #177757,TEMP | ; SHOULD SET Z       |
| 861 | 003036 | 032767 | 000020 | 011106 | BIT #20,TEMP     |                      |
| 862 | 003044 | 001401 |        |        | BEQ .+4          | ;BIT FAILED TO SET Z |
| 863 | 003046 | 000000 |        |        | HLT              |                      |
| 864 |        | 000040 |        |        | N=N+N            |                      |
| 865 |        | 177737 |        |        | M=M+M+1          |                      |
| 866 | 003050 | 000240 |        |        | SCOPE            |                      |
| 867 | 003052 | 012700 | 000040 |        | MOV #40,RO       | ; SHOULD SET Z       |
| 868 | 003056 | 032700 | 177737 |        | BIT #177737,RO   |                      |
| 869 | 003062 | 001401 |        |        | BEQ .+4          | ;BIT FAILED TO SET Z |
| 870 | 003064 | 000000 |        |        | HLT              |                      |
| 871 | 003066 | 000240 |        |        | SCOPE            |                      |
| 872 | 003070 | 012700 | 177737 |        | MOV #177737,RO   | ; SHOULD SET Z       |
| 873 | 003074 | 032700 | 000040 |        | BIT #40,RO       |                      |
| 874 | 003100 | 001401 |        |        | BEQ .+4          | ;BIT FAILED TO SET Z |
| 875 | 003102 | 000000 |        |        | HLT              |                      |
| 876 | 003104 | 000240 |        |        | SCOPE            |                      |



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|     |        |        |        |        |         |               |                       |
|-----|--------|--------|--------|--------|---------|---------------|-----------------------|
| 877 | 003106 | 012767 | 000040 | 011036 | MOV     | #40, TEMP     |                       |
| 878 | 003114 | 032767 | 177737 | 011030 | BIT     | #177737, TEMP | ; SHOULD SET Z        |
| 879 | 003122 | 001401 |        |        | BEQ     | .+4           |                       |
| 880 | 003124 | 000000 |        |        | HLT     |               | ; BIT FAILED TO SET Z |
| 881 | 003126 | 000240 |        |        | SCOPE   |               |                       |
| 882 | 003130 | 012767 | 177737 | 011014 | MOV     | #177737, TEMP |                       |
| 883 | 003136 | 032767 | 000040 | 011006 | BIT     | #40, TEMP     | ; SHOULD SET Z        |
| 884 | 003144 | 001401 |        |        | BEQ     | .+4           |                       |
| 885 | 003146 | 000000 |        |        | HLT     |               | ; BIT FAILED TO SET Z |
| 886 |        | 000100 |        |        | N=N+N   |               |                       |
| 887 |        | 177677 |        |        | M=M+M+1 |               |                       |
| 888 | 003150 | 000240 |        |        | SCOPE   |               |                       |
| 889 | 003152 | 012700 | 000100 |        | MOV     | #100, RO      | ; SHOULD SET Z        |
| 890 | 003156 | 032700 | 177677 |        | BIT     | #177677, RO   |                       |
| 891 | 003162 | 001401 |        |        | BEQ     | .+4           |                       |
| 892 | 003164 | 000000 |        |        | HLT     |               | ; BIT FAILED TO SET Z |
| 893 | 003166 | 000240 |        |        | SCOPE   |               |                       |
| 894 | 003170 | 012700 | 177677 |        | MOV     | #177677, RO   |                       |
| 895 | 003174 | 032700 | 000100 |        | BIT     | #100, RO      | ; SHOULD SET Z        |
| 896 | 003200 | 001401 |        |        | BEQ     | .+4           |                       |
| 897 | 003202 | 000000 |        |        | HLT     |               | ; BIT FAILED TO SET Z |
| 898 | 003204 | 000240 |        |        | SCOPE   |               |                       |
| 899 | 003206 | 012767 | 000100 | 010736 | MOV     | #100, TEMP    |                       |
| 900 | 003214 | 032767 | 177677 | 010730 | BIT     | #177677, TEMP | ; SHOULD SET Z        |
| 901 | 003222 | 001401 |        |        | BEQ     | .+4           |                       |
| 902 | 003224 | 000000 |        |        | HLT     |               | ; BIT FAILED TO SET Z |
| 903 | 003226 | 000240 |        |        | SCOPE   |               |                       |
| 904 | 003230 | 012767 | 177677 | 010714 | MOV     | #177677, TEMP |                       |
| 905 | 003236 | 032767 | 000100 | 010706 | BIT     | #100, TEMP    | ; SHOULD SET Z        |
| 906 | 003244 | 001401 |        |        | BEQ     | .+4           |                       |
| 907 | 003246 | 000000 |        |        | HLT     |               | ; BIT FAILED TO SET Z |
| 908 |        | 000200 |        |        | N=N+N   |               |                       |
| 909 |        | 177577 |        |        | M=M+M+1 |               |                       |
| 910 | 003250 | 000240 |        |        | SCOPE   |               |                       |
| 911 | 003252 | 012700 | 000200 |        | MOV     | #200, RO      | ; SHOULD SET Z        |
| 912 | 003256 | 032700 | 177577 |        | BIT     | #177577, RO   |                       |
| 913 | 003262 | 001401 |        |        | BEQ     | .+4           |                       |
| 914 | 003264 | 000000 |        |        | HLT     |               | ; BIT FAILED TO SET Z |
| 915 | 003266 | 000240 |        |        | SCOPE   |               |                       |
| 916 | 003270 | 012700 | 177577 |        | MOV     | #177577, RO   |                       |
| 917 | 003274 | 032700 | 000200 |        | BIT     | #200, RO      | ; SHOULD SET Z        |
| 918 | 003300 | 001401 |        |        | BEQ     | .+4           |                       |
| 919 | 003302 | 000000 |        |        | HLT     |               | ; BIT FAILED TO SET Z |
| 920 | 003304 | 000240 |        |        | SCOPE   |               |                       |
| 921 | 003306 | 012767 | 000200 | 010636 | MOV     | #200, TEMP    |                       |
| 922 | 003314 | 032767 | 177577 | 010630 | BIT     | #177577, TEMP | ; SHOULD SET Z        |
| 923 | 003322 | 001401 |        |        | BEQ     | .+4           |                       |
| 924 | 003324 | 000000 |        |        | HLT     |               | ; BIT FAILED TO SET Z |
| 925 | 003326 | 000240 |        |        | SCOPE   |               |                       |
| 926 | 003330 | 012767 | 177577 | 010614 | MOV     | #177577, TEMP |                       |
| 927 | 003336 | 032767 | 000200 | 010606 | BIT     | #200, TEMP    | ; SHOULD SET Z        |
| 928 | 003344 | 001401 |        |        | BEQ     | .+4           |                       |
| 929 | 003346 | 000000 |        |        | HLT     |               | ; BIT FAILED TO SET Z |
| 930 |        | 000400 |        |        | N=N+N   |               |                       |
| 931 |        | 177377 |        |        | M=M+M+1 |               |                       |
| 932 | 003350 | 000240 |        |        | SCOPE   |               |                       |



|     |        |        |        |        |         |              |  |                      |
|-----|--------|--------|--------|--------|---------|--------------|--|----------------------|
| 933 | 003352 | 012700 | 000400 |        | MOV     | #400,RO      |  |                      |
| 934 | 003356 | 032700 | 177377 |        | BIT     | #177377,RO   |  | ; SHOULD SET Z       |
| 935 | 003362 | 001401 |        |        | BEQ     | .+4          |  |                      |
| 936 | 003364 | 000000 |        |        | HLT     |              |  | ;BIT FAILED TO SET Z |
| 937 | 003366 | 000240 |        |        | SCOPE   |              |  |                      |
| 938 | 003370 | 012700 | 177377 |        | MOV     | #177377,RO   |  |                      |
| 939 | 003374 | 032700 | 000400 |        | BIT     | #400,RO      |  | ; SHOULD SET Z       |
| 940 | 003400 | 001401 |        |        | BEQ     | .+4          |  |                      |
| 941 | 003402 | 000000 |        |        | HLT     |              |  | ;BIT FAILED TO SET Z |
| 942 | 003404 | 000240 |        |        | SCOPE   |              |  |                      |
| 943 | 003406 | 012767 | 000400 | 010536 | MOV     | #400,TEMP    |  |                      |
| 944 | 003414 | 032767 | 177377 | 010530 | BIT     | #177377,TEMP |  | ; SHOULD SET Z       |
| 945 | 003422 | 001401 |        |        | BEQ     | .+4          |  |                      |
| 946 | 003424 | 000000 |        |        | HLT     |              |  | ;BIT FAILED TO SET Z |
| 947 | 003426 | 000240 |        |        | SCOPE   |              |  |                      |
| 948 | 003430 | 012767 | 177377 | 010514 | MOV     | #177377,TEMP |  |                      |
| 949 | 003436 | 032767 | 000400 | 010506 | BIT     | #400,TEMP    |  | ; SHOULD SET Z       |
| 950 | 003444 | 001401 |        |        | BEQ     | .+4          |  |                      |
| 951 | 003446 | 000000 |        |        | HLT     |              |  | ;BIT FAILED TO SET Z |
| 952 |        | 001000 |        |        | N=N+N   |              |  |                      |
| 953 |        | 176777 |        |        | M=M+M+1 |              |  |                      |
| 954 | 003450 | 000240 |        |        | SCOPE   |              |  |                      |
| 955 | 003452 | 012700 | 001000 |        | MOV     | #1000,RO     |  |                      |
| 956 | 003456 | 032700 | 176777 |        | BIT     | #176777,RO   |  | ; SHOULD SET Z       |
| 957 | 003462 | 001401 |        |        | BEQ     | .+4          |  |                      |
| 958 | 003464 | 000000 |        |        | HLT     |              |  | ;BIT FAILED TO SET Z |
| 959 | 003466 | 000240 |        |        | SCOPE   |              |  |                      |
| 960 | 003470 | 012700 | 176777 |        | MOV     | #176777,RO   |  |                      |
| 961 | 003474 | 032700 | 001000 |        | BIT     | #1000,RO     |  | ; SHOULD SET Z       |
| 962 | 003500 | 001401 |        |        | BEQ     | .+4          |  |                      |
| 963 | 003502 | 000000 |        |        | HLT     |              |  | ;BIT FAILED TO SET Z |
| 964 | 003504 | 000240 |        |        | SCOPE   |              |  |                      |
| 965 | 003506 | 012767 | 001000 | 010436 | MOV     | #1000,TEMP   |  |                      |
| 966 | 003514 | 032767 | 176777 | 010430 | BIT     | #176777,TEMP |  | ; SHOULD SET Z       |
| 967 | 003522 | 001401 |        |        | BEQ     | .+4          |  |                      |
| 968 | 003524 | 000000 |        |        | HLT     |              |  | ;BIT FAILED TO SET Z |
| 969 | 003526 | 000240 |        |        | SCOPE   |              |  |                      |
| 970 | 003530 | 012767 | 176777 | 010414 | MOV     | #176777,TEMP |  |                      |
| 971 | 003536 | 032767 | 001000 | 010406 | BIT     | #1000,TEMP   |  | ; SHOULD SET Z       |
| 972 | 003544 | 001401 |        |        | BEQ     | .+4          |  |                      |
| 973 | 003546 | 000000 |        |        | HLT     |              |  | ;BIT FAILED TO SET Z |
| 974 |        | 002000 |        |        | N=N+N   |              |  |                      |
| 975 |        | 175777 |        |        | M=M+M+1 |              |  |                      |
| 976 | 003550 | 000240 |        |        | SCOPE   |              |  |                      |
| 977 | 003552 | 012700 | 002000 |        | MOV     | #2000,RO     |  |                      |
| 978 | 003556 | 032700 | 175777 |        | BIT     | #175777,RO   |  | ; SHOULD SET Z       |
| 979 | 003562 | 001401 |        |        | BEQ     | .+4          |  |                      |
| 980 | 003564 | 000000 |        |        | HLT     |              |  | ;BIT FAILED TO SET Z |
| 981 | 003566 | 000240 |        |        | SCOPE   |              |  |                      |
| 982 | 003570 | 012700 | 175777 |        | MOV     | #175777,RO   |  |                      |
| 983 | 003574 | 032700 | 002000 |        | BIT     | #2000,RO     |  | ; SHOULD SET Z       |
| 984 | 003600 | 001401 |        |        | BEQ     | .+4          |  |                      |
| 985 | 003602 | 000000 |        |        | HLT     |              |  | ;BIT FAILED TO SET Z |
| 986 | 003604 | 000240 |        |        | SCOPE   |              |  |                      |
| 987 | 003606 | 012767 | 002000 | 010336 | MOV     | #2000,TEMP   |  |                      |
| 988 | 003614 | 032767 | 175777 | 010330 | BIT     | #175777,TEMP |  | ; SHOULD SET Z       |



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|      |        |        |               |         |              |                      |
|------|--------|--------|---------------|---------|--------------|----------------------|
| 989  | 003622 | 001401 |               | BEQ     | +.4          |                      |
| 990  | 003624 | 000000 |               | HLT     |              | ;BIT FAILED TO SET Z |
| 991  | 003626 | 000240 |               | SCOPE   |              |                      |
| 992  | 003630 | 012767 | 175777 010314 | MOV     | #175777,TEMP |                      |
| 993  | 003636 | 032767 | 002000 010306 | BIT     | #2000,TEMP   | ;SHOULD SET Z        |
| 994  | 003644 | 001401 |               | BEQ     | +.4          |                      |
| 995  | 003646 | 000000 |               | HLT     |              | ;BIT FAILED TO SET Z |
| 996  |        | 004000 |               | N=N+N   |              |                      |
| 997  |        | 173777 |               | M=M+M+1 |              |                      |
| 998  | 003650 | 000240 |               | SCOPE   |              |                      |
| 999  | 003652 | 012700 | 004000        | MOV     | #4000,RO     | ;SHOULD SET Z        |
| 1000 | 003656 | 032700 | 173777        | BIT     | #173777,RO   |                      |
| 1001 | 003662 | 001401 |               | BEQ     | +.4          |                      |
| 1002 | 003664 | 000000 |               | HLT     |              | ;BIT FAILED TO SET Z |
| 1003 | 003666 | 000240 |               | SCOPE   |              |                      |
| 1004 | 003670 | 012700 | 173777        | MOV     | #173777,RO   |                      |
| 1005 | 003674 | 032700 | 004000        | BIT     | #4000,RO     | ;SHOULD SET Z        |
| 1006 | 003700 | 001401 |               | BEQ     | +.4          |                      |
| 1007 | 003702 | 000000 |               | HLT     |              | ;BIT FAILED TO SET Z |
| 1008 | 003704 | 000240 |               | SCOPE   |              |                      |
| 1009 | 003706 | 012767 | 004000 010236 | MOV     | #4000,TEMP   | ;SHOULD SET Z        |
| 1010 | 003714 | 032767 | 173777 010230 | BIT     | #173777,TEMP |                      |
| 1011 | 003722 | 001401 |               | BEQ     | +.4          |                      |
| 1012 | 003724 | 000000 |               | HLT     |              | ;BIT FAILED TO SET Z |
| 1013 | 003726 | 000240 |               | SCOPE   |              |                      |
| 1014 | 003730 | 012767 | 173777 010214 | MOV     | #173777,TEMP |                      |
| 1015 | 003736 | 032767 | 004000 010206 | BIT     | #4000,TEMP   | ;SHOULD SET Z        |
| 1016 | 003744 | 001401 |               | BEQ     | +.4          |                      |
| 1017 | 003746 | 000000 |               | HLT     |              | ;BIT FAILED TO SET Z |
| 1018 |        | 010000 |               | N=N+N   |              |                      |
| 1019 |        | 167777 |               | M=M+M+1 |              |                      |
| 1020 | 003750 | 000240 |               | SCOPE   |              |                      |
| 1021 | 003752 | 012700 | 010000        | MOV     | #10000,RO    | ;SHOULD SET Z        |
| 1022 | 003756 | 032700 | 167777        | BIT     | #167777,RO   |                      |
| 1023 | 003762 | 001401 |               | BEQ     | +.4          |                      |
| 1024 | 003764 | 000000 |               | HLT     |              | ;BIT FAILED TO SET Z |
| 1025 | 003766 | 000240 |               | SCOPE   |              |                      |
| 1026 | 003770 | 012700 | 167777        | MOV     | #167777,RO   |                      |
| 1027 | 003774 | 032700 | 010000        | BIT     | #10000,RO    | ;SHOULD SET Z        |
| 1028 | 004000 | 001401 |               | BEQ     | +.4          |                      |
| 1029 | 004002 | 000000 |               | HLT     |              | ;BIT FAILED TO SET Z |
| 1030 | 004004 | 000240 |               | SCOPE   |              |                      |
| 1031 | 004006 | 012767 | 010000 010136 | MOV     | #10000,TEMP  |                      |
| 1032 | 004014 | 032767 | 167777 010130 | BIT     | #167777,TEMP | ;SHOULD SET Z        |
| 1033 | 004022 | 001401 |               | BEQ     | +.4          |                      |
| 1034 | 004024 | 000000 |               | HLT     |              | ;BIT FAILED TO SET Z |
| 1035 | 004026 | 000240 |               | SCOPE   |              |                      |
| 1036 | 004030 | 012767 | 167777 010114 | MOV     | #167777,TEMP |                      |
| 1037 | 004036 | 032767 | 010000 010106 | BIT     | #10000,TEMP  | ;SHOULD SET Z        |
| 1038 | 004044 | 001401 |               | BEQ     | +.4          |                      |
| 1039 | 004046 | 000000 |               | HLT     |              | ;BIT FAILED TO SET Z |
| 1040 |        | 020000 |               | N=N+N   |              |                      |
| 1041 |        | 157777 |               | M=M+M+1 |              |                      |
| 1042 | 004050 | 000240 |               | SCOPE   |              |                      |
| 1043 | 004052 | 012700 | 020000        | MOV     | #20000,RO    |                      |
| 1044 | 004056 | 032700 | 157777        | BIT     | #157777,RO   | ;SHOULD SET Z        |



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|      |        |        |               |         |              |                      |
|------|--------|--------|---------------|---------|--------------|----------------------|
| 1045 | 004062 | 001401 |               | BEQ     | +.4          |                      |
| 1046 | 004064 | 000000 |               | HLT     |              | ;BIT FAILED TO SET Z |
| 1047 | 004066 | 000240 |               | SCOPE   |              |                      |
| 1048 | 004070 | 012700 | 157777        | MOV     | #157777,RO   |                      |
| 1049 | 004074 | 032700 | 020000        | BIT     | #20000,RO    | ;SHOULD SET Z        |
| 1050 | 004100 | 001401 |               | BEQ     | +.4          |                      |
| 1051 | 004102 | 000000 |               | HLT     |              | ;BIT FAILED TO SET Z |
| 1052 | 004104 | 000240 |               | SCOPE   |              |                      |
| 1053 | 004106 | 012767 | 020000 010036 | MOV     | #20000,TEMP  |                      |
| 1054 | 004114 | 032767 | 157777 010030 | BIT     | #157777,TEMP | ;SHOULD SET Z        |
| 1055 | 004122 | 001401 |               | BEQ     | +.4          |                      |
| 1056 | 004124 | 000000 |               | HLT     |              | ;BIT FAILED TO SET Z |
| 1057 | 004126 | 000240 |               | SCOPE   |              |                      |
| 1058 | 004130 | 012767 | 157777 010014 | MOV     | #157777,TEMP |                      |
| 1059 | 004136 | 032767 | 020000 010006 | BIT     | #20000,TEMP  | ;SHOULD SET Z        |
| 1060 | 004144 | 001401 |               | BEQ     | +.4          |                      |
| 1061 | 004146 | 000000 |               | HLT     |              | ;BIT FAILED TO SET Z |
| 1062 |        | 040000 |               | N=N+N   |              |                      |
| 1063 |        | 137777 |               | M=M+M+1 |              |                      |
| 1064 | 004150 | 000240 |               | SCOPE   |              |                      |
| 1065 | 004152 | 012700 | 040000        | MOV     | #40000,RO    |                      |
| 1066 | 004156 | 032700 | 137777        | BIT     | #137777,RO   | ;SHOULD SET Z        |
| 1067 | 004162 | 001401 |               | BEQ     | +.4          |                      |
| 1068 | 004164 | 000000 |               | HLT     |              | ;BIT FAILED TO SET Z |
| 1069 | 004166 | 000240 |               | SCOPE   |              |                      |
| 1070 | 004170 | 012700 | 137777        | MOV     | #137777,RO   |                      |
| 1071 | 004174 | 032700 | 040000        | BIT     | #40000,RO    | ;SHOULD SET Z        |
| 1072 | 004200 | 001401 |               | BEQ     | +.4          |                      |
| 1073 | 004202 | 000000 |               | HLT     |              | ;BIT FAILED TO SET Z |
| 1074 | 004204 | 000240 |               | SCOPE   |              |                      |
| 1075 | 004206 | 012767 | 040000 007736 | MOV     | #40000,TEMP  |                      |
| 1076 | 004214 | 032767 | 137777 007730 | BIT     | #137777,TEMP | ;SHOULD SET Z        |
| 1077 | 004222 | 001401 |               | BEQ     | +.4          |                      |
| 1078 | 004224 | 000000 |               | HLT     |              | ;BIT FAILED TO SET Z |
| 1079 | 004226 | 000240 |               | SCOPE   |              |                      |
| 1080 | 004230 | 012767 | 137777 007714 | MOV     | #137777,TEMP |                      |
| 1081 | 004236 | 032767 | 040000 007706 | BIT     | #40000,TEMP  | ;SHOULD SET Z        |
| 1082 | 004244 | 001401 |               | BEQ     | +.4          |                      |
| 1083 | 004246 | 000000 |               | HLT     |              | ;BIT FAILED TO SET Z |
| 1084 |        | 100000 |               | N=N+N   |              |                      |
| 1085 |        | 077777 |               | M=M+M+1 |              |                      |
| 1086 | 004250 | 000240 |               | SCOPE   |              |                      |
| 1087 | 004252 | 012700 | 100000        | MOV     | #100000,RO   |                      |
| 1088 | 004256 | 032700 | 077777        | BIT     | #77777,RO    | ;SHOULD SET Z        |
| 1089 | 004262 | 001401 |               | BEQ     | +.4          |                      |
| 1090 | 004264 | 000000 |               | HLT     |              | ;BIT FAILED TO SET Z |
| 1091 | 004266 | 000240 |               | SCOPE   |              |                      |
| 1092 | 004270 | 012700 | 077777        | MOV     | #77777,RO    |                      |
| 1093 | 004274 | 032700 | 100000        | BIT     | #100000,RO   | ;SHOULD SET Z        |
| 1094 | 004300 | 001401 |               | BEQ     | +.4          |                      |
| 1095 | 004302 | 000000 |               | HLT     |              | ;BIT FAILED TO SET Z |
| 1096 | 004304 | 000240 |               | SCOPE   |              |                      |
| 1097 | 004306 | 012767 | 100000 007636 | MOV     | #100000,TEMP |                      |
| 1098 | 004314 | 032767 | 077777 007630 | BIT     | #77777,TEMP  | ;SHOULD SET Z        |
| 1099 | 004322 | 001401 |               | BEQ     | +.4          |                      |
| 1100 | 004324 | 000000 |               | HLT     |              | ;BIT FAILED TO SET Z |



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|      |        |        |               |         |                       |
|------|--------|--------|---------------|---------|-----------------------|
| 1101 | 004326 | 000240 |               | SCOPE   |                       |
| 1102 | 004330 | 012767 | 077777 007614 | MOV     | #77777, TEMP          |
| 1103 | 004336 | 032767 | 100000 007606 | BIT     | #100000, TEMP         |
| 1104 | 004344 | 001401 |               | BEQ     | .+4                   |
| 1105 | 004346 | 000000 |               | HLT     | ;BIT FAILED TO SET Z  |
| 1106 |        | 000000 |               | N=N+N   |                       |
| 1107 |        | 177777 |               | M=M+M+1 |                       |
| 1108 | 004350 | 000240 |               | SCOPE   |                       |
| 1109 | 004352 | 012767 | 000377 007572 | MOV     | #377, TEMP            |
| 1110 | 004360 | 132767 | 000000 007564 | BITB    | #0, TEMP              |
| 1111 | 004366 | 001401 |               | BEQ     | .+4                   |
| 1112 | 004370 | 000000 |               | HLT     | ;BITB FAILED TO SET Z |
| 1113 | 004372 | 000240 |               | SCOPE   |                       |
| 1114 | 004374 | 012767 | 177400 007550 | MOV     | #177400, TEMP         |
| 1115 | 004402 | 132767 | 000000 007542 | BITB    | #0, TEMP              |
| 1116 | 004410 | 001401 |               | BEQ     | .+4                   |
| 1117 | 004412 | 000000 |               | HLT     | ;BITB FAILED TO SET Z |
| 1118 |        |        |               |         |                       |
| 1119 |        | 000000 |               | M=0     |                       |
| 1120 | 004414 | 000240 |               | SCOPE   |                       |
| 1121 | 004416 | 012700 | 177777        | MOV     | #-1, %N               |
| 1122 | 004422 | 032700 | 177777        | BIT     | #-1, %N               |
| 1123 | 004426 | 001001 |               | BNE     | .+4                   |
| 1124 | 004430 | 000000 |               | HLT     | ;BIT -1, %N SET Z     |
| 1125 | 004432 | 000240 |               | SCOPE   |                       |
| 1126 | 004434 | 012700 | 177400        | MOV     | #177400, %N           |
| 1127 | 004440 | 032700 | 177777        | BIT     | #-1, %N               |
| 1128 | 004444 | 001001 |               | BNE     | .+4                   |
| 1129 | 004446 | 000000 |               | HLT     | ;BIT -1, %N SET Z     |
| 1130 | 004450 | 000240 |               | SCOPE   |                       |
| 1131 | 004452 | 012700 | 000377        | MOV     | #377, %N              |
| 1132 | 004456 | 032700 | 177777        | BIT     | #-1, %N               |
| 1133 | 004462 | 001001 |               | BNE     | .+4                   |
| 1134 | 004464 | 000000 |               | HLT     | ;BIT -1, %N SET Z     |
| 1135 | 004466 | 000240 |               | SCOPE   |                       |
| 1136 | 004470 | 012700 | 177777        | MOV     | #-1, %N               |
| 1137 | 004474 | 032700 | 177400        | BIT     | #177400, %N           |
| 1138 | 004500 | 001001 |               | BNE     | .+4                   |
| 1139 | 004502 | 000000 |               | HLT     | ;BIT 177400, %N SET Z |
| 1140 | 004504 | 000240 |               | SCOPE   |                       |
| 1141 | 004506 | 012700 | 177777        | MOV     | #-1, %N               |
| 1142 | 004512 | 032700 | 000377        | BIT     | #377, %N              |
| 1143 | 004516 | 001001 |               | BNE     | .+4                   |
| 1144 | 004520 | 000000 |               | HLT     | ;BIT 377, %N SET Z    |
| 1145 | 004522 | 000240 |               | SCOPE   |                       |
| 1146 | 004524 | 012700 | 177777        | MOV     | #-1, %N               |
| 1147 | 004530 | 132700 | 177777        | BITB    | #-1, %N               |
| 1148 | 004534 | 001001 |               | BNE     | .+4                   |
| 1149 | 004536 | 000000 |               | HLT     | ;BITB -1, %N SET Z    |
| 1150 | 004540 | 000240 |               | SCOPE   |                       |
| 1151 | 004542 | 012700 | 000377        | MOV     | #377, %N              |
| 1152 | 004546 | 132700 | 177777        | BITB    | #-1, %N               |
| 1153 | 004552 | 001001 |               | BNE     | .+4                   |
| 1154 | 004554 | 000000 |               | HLT     | ;BITB -1, %N SET Z    |
| 1155 |        | 000001 |               | M=M+1   |                       |
| 1156 | 004556 | 000240 |               | SCOPE   |                       |



|      |        |        |        |       |            |                      |
|------|--------|--------|--------|-------|------------|----------------------|
| 1157 | 004560 | 012700 | 177777 | MOV   | #-1,%N     |                      |
| 1158 | 004564 | 032700 | 177777 | BIT   | #-1,%N     | ;SHOULD NOT SET Z    |
| 1159 | 004570 | 001001 |        | BNE   | .+4        |                      |
| 1160 | 004572 | 000000 |        | HLT   |            | ;BIT -1,%N SET Z     |
| 1161 | 004574 | 000240 |        | SCOPE |            |                      |
| 1162 | 004576 | 012700 | 177400 | MOV   | #177400,%N |                      |
| 1163 | 004602 | 032700 | 177777 | BIT   | #-1,%N     | ;SHOULD NOT SET Z    |
| 1164 | 004606 | 001001 |        | BNE   | .+4        |                      |
| 1165 | 004610 | 000000 |        | HLT   |            | ;BIT -1,%N SET Z     |
| 1166 | 004612 | 000240 |        | SCOPE |            |                      |
| 1167 | 004614 | 012700 | 000377 | MOV   | #377,%N    |                      |
| 1168 | 004620 | 032700 | 177777 | BIT   | #-1,%N     | ;SHOULD NOT SET Z    |
| 1169 | 004624 | 001001 |        | BNE   | .+4        |                      |
| 1170 | 004626 | 000000 |        | HLT   |            | ;BIT -1,%N SET Z     |
| 1171 | 004630 | 000240 |        | SCOPE |            |                      |
| 1172 | 004632 | 012700 | 177777 | MOV   | #-1,%N     |                      |
| 1173 | 004636 | 032700 | 177400 | BIT   | #177400,%N | ;SHOULD NOT SET Z    |
| 1174 | 004642 | 001001 |        | BNE   | .+4        |                      |
| 1175 | 004644 | 000000 |        | HLT   |            | ;BIT 177400,%N SET Z |
| 1176 | 004646 | 000240 |        | SCOPE |            |                      |
| 1177 | 004650 | 012700 | 177777 | MOV   | #-1,%N     |                      |
| 1178 | 004654 | 032700 | 000377 | BIT   | #377,%N    | ;SHOULD NOT SET Z    |
| 1179 | 004660 | 001001 |        | BNE   | .+4        |                      |
| 1180 | 004662 | 000000 |        | HLT   |            | ;BIT 377,%N SET Z    |
| 1181 | 004664 | 000240 |        | SCOPE |            |                      |
| 1182 | 004666 | 012700 | 177777 | MOV   | #-1,%N     |                      |
| 1183 | 004672 | 132700 | 177777 | BITB  | #-1,%N     | ;SHOULD NOT SET Z    |
| 1184 | 004676 | 001001 |        | BNE   | .+4        |                      |
| 1185 | 004700 | 000000 |        | HLT   |            | ;BITB -1,%N SET Z    |
| 1186 | 004702 | 000240 |        | SCOPE |            |                      |
| 1187 | 004704 | 012700 | 000377 | MOV   | #377,%N    |                      |
| 1188 | 004710 | 132700 | 177777 | BITB  | #-1,%N     | ;SHOULD NOT SET Z    |
| 1189 | 004714 | 001001 |        | BNE   | .+4        |                      |
| 1190 | 004716 | 000000 |        | HLT   |            | ;BITB -1,%N SET Z    |
| 1191 |        | 000002 |        | M=M+1 |            |                      |
| 1192 | 004720 | 000240 |        | SCOPE |            |                      |
| 1193 | 004722 | 012700 | 177777 | MOV   | #-1,%N     |                      |
| 1194 | 004726 | 032700 | 177777 | BIT   | #-1,%N     | ;SHOULD NOT SET Z    |
| 1195 | 004732 | 001001 |        | BNE   | .+4        |                      |
| 1196 | 004734 | 000000 |        | HLT   |            | ;BIT -1,%N SET Z     |
| 1197 | 004736 | 000240 |        | SCOPE |            |                      |
| 1198 | 004740 | 012700 | 177400 | MOV   | #177400,%N |                      |
| 1199 | 004744 | 032700 | 177777 | BIT   | #-1,%N     | ;SHOULD NOT SET Z    |
| 1200 | 004750 | 001001 |        | BNE   | .+4        |                      |
| 1201 | 004752 | 000000 |        | HLT   |            | ;BIT -1,%N SET Z     |
| 1202 | 004754 | 000240 |        | SCOPE |            |                      |
| 1203 | 004756 | 012700 | 000377 | MOV   | #377,%N    |                      |
| 1204 | 004762 | 032700 | 177777 | BIT   | #-1,%N     | ;SHOULD NOT SET Z    |
| 1205 | 004766 | 001001 |        | BNE   | .+4        |                      |
| 1206 | 004770 | 000000 |        | HLT   |            | ;BIT -1,%N SET Z     |
| 1207 | 004772 | 000240 |        | SCOPE |            |                      |
| 1208 | 004774 | 012700 | 177777 | MOV   | #-1,%N     |                      |
| 1209 | 005000 | 032700 | 177400 | BIT   | #177400,%N | ;SHOULD NOT SET Z    |
| 1210 | 005004 | 001001 |        | BNE   | .+4        |                      |
| 1211 | 005006 | 000000 |        | HLT   |            | ;BIT 177400,%N SET Z |
| 1212 | 005010 | 000240 |        | SCOPE |            |                      |



|      |        |        |        |       |            |                      |
|------|--------|--------|--------|-------|------------|----------------------|
| 1213 | 005012 | 012700 | 177777 | MOV   | #-1,%N     |                      |
| 1214 | 005016 | 032700 | 000377 | BIT   | #377,%N    | ;SHOULD NOT SET Z    |
| 1215 | 005022 | 001001 |        | BNE   | .+4        |                      |
| 1216 | 005024 | 000000 |        | HLT   |            | ;BIT 377,%N SET Z    |
| 1217 | 005026 | 000240 |        | SCOPE |            |                      |
| 1218 | 005030 | 012700 | 177777 | MOV   | #-1,%N     |                      |
| 1219 | 005034 | 132700 | 177777 | BITB  | #-1,%N     | ;SHOULD NOT SET Z    |
| 1220 | 005040 | 001001 |        | BNE   | .+4        |                      |
| 1221 | 005042 | 000000 |        | HLT   |            | ;BITB -1,%N SET Z    |
| 1222 | 005044 | 000240 |        | SCOPE |            |                      |
| 1223 | 005046 | 012700 | 000377 | MOV   | #377,%N    |                      |
| 1224 | 005052 | 132700 | 177777 | BITB  | #-1,%N     | ;SHOULD NOT SET Z    |
| 1225 | 005056 | 001001 |        | BNE   | .+4        |                      |
| 1226 | 005060 | 000000 |        | HLT   |            | ;BITB -1,%N SET Z    |
| 1227 |        | 000003 |        | M=M+1 |            |                      |
| 1228 | 005062 | 000240 |        | SCOPE |            |                      |
| 1229 | 005064 | 012700 | 177777 | MOV   | #-1,%N     |                      |
| 1230 | 005070 | 032700 | 177777 | EIT   | #-1,%N     | ;SHOULD NOT SET Z    |
| 1231 | 005074 | 001001 |        | BNE   | .+4        |                      |
| 1232 | 005076 | 000000 |        | HLT   |            | ;BIT -1,%N SET Z     |
| 1233 | 005100 | 000240 |        | SCOPE |            |                      |
| 1234 | 005102 | 012700 | 177400 | MOV   | #177400,%N |                      |
| 1235 | 005106 | 032700 | 177777 | BIT   | #-1,%N     | ;SHOULD NOT SET Z    |
| 1236 | 005112 | 001001 |        | BNE   | .+4        |                      |
| 1237 | 005114 | 000000 |        | HLT   |            | ;BIT -1,%N SET Z     |
| 1238 | 005116 | 000240 |        | SCOPE |            |                      |
| 1239 | 005120 | 012700 | 000377 | MOV   | #377,%N    |                      |
| 1240 | 005124 | 032700 | 177777 | BIT   | #-1,%N     | ;SHOULD NOT SET Z    |
| 1241 | 005130 | 001001 |        | BNE   | .+4        |                      |
| 1242 | 005132 | 000000 |        | HLT   |            | ;BIT -1,%N SET Z     |
| 1243 | 005134 | 000240 |        | SCOPE |            |                      |
| 1244 | 005136 | 012700 | 177777 | MOV   | #-1,%N     |                      |
| 1245 | 005142 | 032700 | 177400 | BIT   | #177400,%N | ;SHOULD NOT SET Z    |
| 1246 | 005146 | 001001 |        | BNE   | .+4        |                      |
| 1247 | 005150 | 000000 |        | HLT   |            | ;BIT 177400,%N SET Z |
| 1248 | 005152 | 000240 |        | SCOPE |            |                      |
| 1249 | 005154 | 012700 | 177777 | MOV   | #-1,%N     |                      |
| 1250 | 005160 | 032700 | 000377 | BIT   | #377,%N    | ;SHOULD NOT SET Z    |
| 1251 | 005164 | 001001 |        | BNE   | .+4        |                      |
| 1252 | 005166 | 000000 |        | HLT   |            | ;BIT 377,%N SET Z    |
| 1253 | 005170 | 000240 |        | SCOPE |            |                      |
| 1254 | 005172 | 012700 | 177777 | MOV   | #-1,%N     |                      |
| 1255 | 005176 | 132700 | 177777 | BITB  | #-1,%N     | ;SHOULD NOT SET Z    |
| 1256 | 005202 | 001001 |        | BNE   | .+4        |                      |
| 1257 | 005204 | 000000 |        | HLT   |            | ;BITB -1,%N SET Z    |
| 1258 | 005206 | 000240 |        | SCOPE |            |                      |
| 1259 | 005210 | 012700 | 000377 | MOV   | #377,%N    |                      |
| 1260 | 005214 | 132700 | 177777 | BITB  | #-1,%N     | ;SHOULD NOT SET Z    |
| 1261 | 005220 | 001001 |        | BNE   | .+4        |                      |
| 1262 | 005222 | 000000 |        | HLT   |            | ;BITB -1,%N SET Z    |
| 1263 |        | 000004 |        | M=M+1 |            |                      |
| 1264 | 005224 | 000240 |        | SCOPE |            |                      |
| 1265 | 005226 | 012700 | 177777 | MOV   | #-1,%N     |                      |
| 1266 | 005232 | 032700 | 177777 | BIT   | #-1,%N     | ;SHOULD NOT SET Z    |
| 1267 | 005236 | 001001 |        | BNE   | .+4        |                      |
| 1268 | 005240 | 000000 |        | HLT   |            | ;BIT -1,%N SET Z     |



|      |        |        |        |       |            |                      |
|------|--------|--------|--------|-------|------------|----------------------|
| 1269 | 005242 | 000240 |        | SCOPE |            |                      |
| 1270 | 005244 | 012700 | 177400 | MOV   | #177400,%N |                      |
| 1271 | 005250 | 032700 | 177777 | BIT   | #-1,%N     | ; SHOULD NOT SET Z   |
| 1272 | 005254 | 001001 |        | BNE   | .+4        |                      |
| 1273 | 005256 | 000000 |        | HLT   |            | ;BIT -1,%N SET Z     |
| 1274 | 005260 | 000240 |        | SCOPE |            |                      |
| 1275 | 005262 | 012700 | 000377 | MOV   | #377,%N    |                      |
| 1276 | 005266 | 032700 | 177777 | BIT   | #-1,%N     | ; SHOULD NOT SET Z   |
| 1277 | 005272 | 001001 |        | BNE   | .+4        |                      |
| 1278 | 005274 | 000000 |        | HLT   |            | ;BIT -1,%N SET Z     |
| 1279 | 005276 | 000240 |        | SCOPE |            |                      |
| 1280 | 005300 | 012700 | 177777 | MOV   | #-1,%N     |                      |
| 1281 | 005304 | 032700 | 177400 | BIT   | #177400,%N | ; SHOULD NOT SET Z   |
| 1282 | 005310 | 001001 |        | BNE   | .+4        |                      |
| 1283 | 005312 | 000000 |        | HLT   |            | ;BIT 177400,%N SET Z |
| 1284 | 005314 | 000240 |        | SCOPE |            |                      |
| 1285 | 005316 | 012700 | 177777 | MOV   | #-1,%N     |                      |
| 1286 | 005322 | 032700 | 000377 | BIT   | #377,%N    | ; SHOULD NOT SET Z   |
| 1287 | 005326 | 001001 |        | BNE   | .+4        |                      |
| 1288 | 005330 | 000000 |        | HLT   |            | ;BIT 377,%N SET Z    |
| 1289 | 005332 | 000240 |        | SCOPE |            |                      |
| 1290 | 005334 | 012700 | 177777 | MOV   | #-1,%N     |                      |
| 1291 | 005340 | 132700 | 177777 | BITB  | #-1,%N     | ; SHOULD NOT SET Z   |
| 1292 | 005344 | 001001 |        | BNE   | .+4        |                      |
| 1293 | 005346 | 000000 |        | HLT   |            | ;BITB -1,%N SET Z    |
| 1294 | 005350 | 000240 |        | SCOPE |            |                      |
| 1295 | 005352 | 012700 | 000377 | MOV   | #377,%N    |                      |
| 1296 | 005356 | 132700 | 177777 | BITB  | #-1,%N     | ; SHOULD NOT SET Z   |
| 1297 | 005362 | 001001 |        | BNE   | .+4        |                      |
| 1298 | 005364 | 000000 |        | HLT   |            | ;BITB -1,%N SET Z    |
| 1299 |        | 000005 |        | M=M+1 |            |                      |
| 1300 | 005366 | 000240 |        | SCOPE |            |                      |
| 1301 | 005370 | 012700 | 177777 | MOV   | #-1,%N     |                      |
| 1302 | 005374 | 032700 | 177777 | BIT   | #-1,%N     | ; SHOULD NOT SET Z   |
| 1303 | 005400 | 001001 |        | BNE   | .+4        |                      |
| 1304 | 005402 | 000000 |        | HLT   |            | ;BIT -1,%N SET Z     |
| 1305 | 005404 | 000240 |        | SCOPE |            |                      |
| 1306 | 005406 | 012700 | 177400 | MOV   | #177400,%N |                      |
| 1307 | 005412 | 032700 | 177777 | BIT   | #-1,%N     | ; SHOULD NOT SET Z   |
| 1308 | 005416 | 001001 |        | BNE   | .+4        |                      |
| 1309 | 005420 | 000000 |        | HLT   |            | ;BIT -1,%N SET Z     |
| 1310 | 005422 | 000240 |        | SCOPE |            |                      |
| 1311 | 005424 | 012700 | 000377 | MOV   | #377,%N    |                      |
| 1312 | 005430 | 032700 | 177777 | BIT   | #-1,%N     | ; SHOULD NOT SET Z   |
| 1313 | 005434 | 001001 |        | BNE   | .+4        |                      |
| 1314 | 005436 | 000000 |        | HLT   |            | ;BIT -1,%N SET Z     |
| 1315 | 005440 | 000240 |        | SCOPE |            |                      |
| 1316 | 005442 | 012700 | 177777 | MOV   | #-1,%N     |                      |
| 1317 | 005446 | 032700 | 177400 | BIT   | #177400,%N | ; SHOULD NOT SET Z   |
| 1318 | 005452 | 001001 |        | BNE   | .+4        |                      |
| 1319 | 005454 | 000000 |        | HLT   |            | ;BIT 177400,%N SET Z |
| 1320 | 005456 | 000240 |        | SCOPE |            |                      |
| 1321 | 005460 | 012700 | 177777 | MOV   | #-1,%N     |                      |
| 1322 | 005464 | 032700 | 000377 | BIT   | #377,%N    | ; SHOULD NOT SET Z   |
| 1323 | 005470 | 001001 |        | BNE   | .+4        |                      |
| 1324 | 005472 | 000000 |        | HLT   |            | ;BIT 377,%N SET Z    |



|      |        |        |               |       |                 |                          |
|------|--------|--------|---------------|-------|-----------------|--------------------------|
| 1325 | 005474 | 000240 |               | SCOPE |                 |                          |
| 1326 | 005476 | 012700 | 177777        | MOV   | #-1,%N          |                          |
| 1327 | 005502 | 132700 | 177777        | BITB  | #-1,%N          | ; SHOULD NOT SET Z       |
| 1328 | 005506 | 001001 |               | BNE   | .+4             |                          |
| 1329 | 005510 | 000000 |               | HLT   |                 | ; BITB -1,%N SET Z       |
| 1330 | 005512 | 000240 |               | SCOPE |                 |                          |
| 1331 | 005514 | 012700 | 000377        | MOV   | #377,%N         |                          |
| 1332 | 005520 | 132700 | 177777        | BITB  | #-1,%N          | ; SHOULD NOT SET Z       |
| 1333 | 005524 | 001001 |               | BNE   | .+4             |                          |
| 1334 | 005526 | 000000 |               | HLT   |                 | ; BITB -1,%N SET Z       |
| 1335 |        | 000006 |               | M=M+1 |                 |                          |
| 1336 |        |        |               |       |                 |                          |
| 1337 | 005530 | 000240 |               | SCOPE |                 |                          |
| 1338 | 005532 | 012767 | 177777 006412 | MOV   | #-1,TEMP        |                          |
| 1339 | 005540 | 032767 | 177777 006404 | BIT   | #-1,TEMP        | ; SHOULD NOT SET Z       |
| 1340 | 005546 | 001001 |               | BNE   | .+4             |                          |
| 1341 | 005550 | 000000 |               | HLT   |                 | ; BIT -1,TEMP SET Z      |
| 1342 | 005552 | 000240 |               | SCOPE |                 |                          |
| 1343 | 005554 | 012767 | 177777 006370 | MOV   | #-1,TEMP        |                          |
| 1344 | 005562 | 132767 | 177777 006362 | BITB  | #-1,TEMP        | ; SHOULD NOT SET Z       |
| 1345 | 005570 | 001001 |               | BNE   | .+4             |                          |
| 1346 | 005572 | 000000 |               | HLT   |                 | ; BITB -1,TEMP SET Z     |
| 1347 | 005574 | 000240 |               | SCOPE |                 |                          |
| 1348 | 005576 | 012767 | 177777 006346 | MOV   | #-1,TEMP        |                          |
| 1349 | 005604 | 132767 | 000001 006340 | BITB  | #1,TEMP         | ; SHOULD NOT SET Z       |
| 1350 | 005612 | 001001 |               | BNE   | .+4             |                          |
| 1351 | 005614 | 000000 |               | HLT   |                 | ; BITB 1,TEMP SET Z      |
| 1352 |        |        |               |       |                 |                          |
| 1353 |        | 000000 |               | N=0   |                 |                          |
| 1354 | 005616 | 012700 | 177777        | MOV   | #177777,%N      | ; MOV 177777 TO %N       |
| 1355 | 005622 | 042700 | 000000        | BIC   | #0,%N           | ; SELECTIVELY CLEAR %N   |
| 1356 | 005626 | 022700 | 177777        | CMP   | #-0-13177777,%N | ; COMPARE LITERAL TO %N  |
| 1357 | 005632 | 001401 |               | BEQ   | .+4             | ; TEST FOR EQUAL         |
| 1358 | 005634 | 000000 |               | HLT   |                 | ; BIC INSTRUCTION FAILED |
| 1359 | 005636 | 000240 |               | SCOPE |                 |                          |
| 1360 | 005640 | 012700 | 177777        | MOV   | #177777,%N      | ; MOV 177777 TO %N       |
| 1361 | 005644 | 052700 | 000000        | BIS   | #0,%N           | ; SELECTIVE SET %N       |
| 1362 | 005650 | 022700 | 177777        | CMP   | #177777!0,%N    | ; COMPARE LITERAL TO %N  |
| 1363 | 005654 | 001401 |               | BEQ   | .+4             | ; TEST FOR EQUAL         |
| 1364 | 005656 | 000000 |               | HLT   |                 | ; BIS INSTRUCTION FAILED |
| 1365 | 005660 | 000240 |               | SCOPE |                 |                          |
| 1366 | 005662 | 012700 | 000000        | MOV   | #0,%N           | ; MOV 0 TO %N            |
| 1367 | 005666 | 042700 | 177777        | BIC   | #177777,%N      | ; SELECTIVELY CLEAR %N   |
| 1368 | 005672 | 022700 | 000000        | CMP   | #-177777-180,%N | ; COMPARE LITERAL TO %N  |
| 1369 | 005676 | 001401 |               | BEQ   | .+4             | ; TEST FOR EQUAL         |
| 1370 | 005700 | 000000 |               | HLT   |                 | ; BIC INSTRUCTION FAILED |
| 1371 | 005702 | 000240 |               | SCOPE |                 |                          |
| 1372 | 005704 | 012700 | 000000        | MOV   | #0,%N           | ; MOV 0 TO %N            |
| 1373 | 005710 | 052700 | 177777        | BIS   | #177777,%N      | ; SELECTIVE SET %N       |
| 1374 | 005714 | 022700 | 177777        | CMP   | #0!177777,%N    | ; COMPARE LITERAL TO %N  |
| 1375 | 005720 | 001401 |               | BEQ   | .+4             | ; TEST FOR EQUAL         |
| 1376 | 005722 | 000000 |               | HLT   |                 | ; BIS INSTRUCTION FAILED |
| 1377 | 005724 | 000240 |               | SCOPE |                 |                          |
| 1378 |        | 000001 |               | N=N+1 |                 |                          |
| 1379 | 005726 | 012701 | 177777        | MOV   | #177777,%N      | ; MOV 177777 TO %N       |
| 1380 | 005732 | 042701 | 000000        | BIC   | #0,%N           | ; SELECTIVELY CLEAR %N   |

|      |        |        |        |       |                 |                         |
|------|--------|--------|--------|-------|-----------------|-------------------------|
| 1381 | 005736 | 022701 | 177777 | CMP   | #-0-1&177777,%N | ;COMPARE LITERAL TO %N  |
| 1382 | 005742 | 001401 |        | BEQ   | .+4             | ;TEST FOR EQUAL         |
| 1383 | 005744 | 000000 |        | HLT   |                 | ;BIC INSTRUCTION FAILED |
| 1384 | 005746 | 000240 |        | SCOPE |                 |                         |
| 1385 | 005750 | 012701 | 177777 | MOV   | #177777,%N      | ;MOV 177777 TO %N       |
| 1386 | 005754 | 052701 | 000000 | BIS   | #0,%N           | ;SELECTIVE SET %N       |
| 1387 | 005760 | 022701 | 177777 | CMP   | #177777!0,%N    | ;COMPARE LITERAL TO %N  |
| 1388 | 005764 | 001401 |        | BEQ   | .+4             | ;TEST FOR EQUAL         |
| 1389 | 005766 | 000000 |        | HLT   |                 | ;BIS INSTRUCTION FAILED |
| 1390 | 005770 | 000240 |        | SCOPE |                 |                         |
| 1391 | 005772 | 012701 | 000000 | MOV   | #0,%N           | ;MOV 0 TO %N            |
| 1392 | 005776 | 042701 | 177777 | BIC   | #177777,%N      | ;SELECTIVELY CLEAR %N   |
| 1393 | 006002 | 022701 | 000000 | CMP   | #-177777-1&0,%N | ;COMPARE LITERAL TO %N  |
| 1394 | 006006 | 001401 |        | BEQ   | .+4             | ;TEST FOR EQUAL         |
| 1395 | 006010 | 000000 |        | HLT   |                 | ;BIC INSTRUCTION FAILED |
| 1396 | 006012 | 000240 |        | SCOPE |                 |                         |
| 1397 | 006014 | 012701 | 000000 | MOV   | #0,%N           | ;MOV 0 TO %N            |
| 1398 | 006020 | 052701 | 177777 | BIS   | #177777,%N      | ;SELECTIVE SET %N       |
| 1399 | 006024 | 022701 | 177777 | CMP   | #0!177777,%N    | ;COMPARE LITERAL TO %N  |
| 1400 | 006030 | 001401 |        | BEQ   | .+4             | ;TEST FOR EQUAL         |
| 1401 | 006032 | 000000 |        | HLT   |                 | ;BIS INSTRUCTION FAILED |
| 1402 | 006034 | 000240 |        | SCOPE |                 |                         |
| 1403 |        | 000002 |        | N=N+1 |                 |                         |
| 1404 | 006036 | 012702 | 177777 | MOV   | #177777,%N      | ;MOV 177777 TO %N       |
| 1405 | 006042 | 042702 | 000000 | BIC   | #0,%N           | ;SELECTIVELY CLEAR %N   |
| 1406 | 006046 | 022702 | 177777 | CMP   | #-0-1&177777,%N | ;COMPARE LITERAL TO %N  |
| 1407 | 006052 | 001401 |        | BEQ   | .+4             | ;TEST FOR EQUAL         |
| 1408 | 006054 | 000000 |        | HLT   |                 | ;BIC INSTRUCTION FAILED |
| 1409 | 006056 | 000240 |        | SCOPE |                 |                         |
| 1410 | 006060 | 012702 | 177777 | MOV   | #177777,%N      | ;MOV 177777 TO %N       |
| 1411 | 006064 | 052702 | 000000 | BIS   | #0,%N           | ;SELECTIVE SET %N       |
| 1412 | 006070 | 022702 | 177777 | CMP   | #177777!0,%N    | ;COMPARE LITERAL TO %N  |
| 1413 | 006074 | 001401 |        | BEQ   | .+4             | ;TEST FOR EQUAL         |
| 1414 | 006076 | 000000 |        | HLT   |                 | ;BIS INSTRUCTION FAILED |
| 1415 | 006100 | 000240 |        | SCOPE |                 |                         |
| 1416 | 006102 | 012702 | 000000 | MOV   | #0,%N           | ;MOV 0 TO %N            |
| 1417 | 006106 | 042702 | 177777 | BIC   | #177777,%N      | ;SELECTIVELY CLEAR %N   |
| 1418 | 006112 | 022702 | 000000 | CMP   | #-177777-1&0,%N | ;COMPARE LITERAL TO %N  |
| 1419 | 006116 | 001401 |        | BEQ   | .+4             | ;TEST FOR EQUAL         |
| 1420 | 006120 | 000000 |        | HLT   |                 | ;BIC INSTRUCTION FAILED |
| 1421 | 006122 | 000240 |        | SCOPE |                 |                         |
| 1422 | 006124 | 012702 | 000000 | MOV   | #0,%N           | ;MOV 0 TO %N            |
| 1423 | 006130 | 052702 | 177777 | BIS   | #177777,%N      | ;SELECTIVE SET %N       |
| 1424 | 006134 | 022702 | 177777 | CMP   | #0!177777,%N    | ;COMPARE LITERAL TO %N  |
| 1425 | 006140 | 001401 |        | BEQ   | .+4             | ;TEST FOR EQUAL         |
| 1426 | 006142 | 000000 |        | HLT   |                 | ;BIS INSTRUCTION FAILED |
| 1427 | 006144 | 000240 |        | SCOPE |                 |                         |
| 1428 |        | 000003 |        | N=N+1 |                 |                         |
| 1429 | 006146 | 012703 | 177777 | MOV   | #177777,%N      | ;MOV 177777 TO %N       |
| 1430 | 006152 | 042703 | 000000 | BIC   | #0,%N           | ;SELECTIVELY CLEAR %N   |
| 1431 | 006156 | 022703 | 177777 | CMP   | #-0-1&177777,%N | ;COMPARE LITERAL TO %N  |
| 1432 | 006162 | 001401 |        | BEQ   | .+4             | ;TEST FOR EQUAL         |
| 1433 | 006164 | 000000 |        | HLT   |                 | ;BIC INSTRUCTION FAILED |
| 1434 | 006166 | 000240 |        | SCOPE |                 |                         |
| 1435 | 006170 | 012703 | 177777 | MOV   | #177777,%N      | ;MOV 177777 TO %N       |
| 1436 | 006174 | 052703 | 000000 | BIS   | #0,%N           | ;SELECTIVE SET %N       |



|      |        |        |        |       |                 |                         |
|------|--------|--------|--------|-------|-----------------|-------------------------|
| 1437 | 006200 | 022703 | 177777 | CMP   | #177777!0,%N    | ;COMPARE LITERAL TO %N  |
| 1438 | 006204 | 001401 |        | BEQ   | .+4             | ;TEST FOR EQUAL         |
| 1439 | 006206 | 000000 |        | HLT   |                 | ;BIS INSTRUCTION FAILED |
| 1440 | 006210 | 000240 |        | SCOPE |                 |                         |
| 1441 | 006212 | 012703 | 000000 | MOV   | #0,%N           | ;MOV 0 TO %N            |
| 1442 | 006216 | 042703 | 177777 | BIC   | #177777,%N      | ;SELECTIVELY CLEAR %N   |
| 1443 | 006222 | 022703 | 000000 | CMP   | #-177777-1&0,%N | ;COMPARE LITERAL TO %N  |
| 1444 | 006226 | 001401 |        | BEQ   | .+4             | ;TEST FOR EQUAL         |
| 1445 | 006230 | 000000 |        | HLT   |                 | ;BIC INSTRUCTION FAILED |
| 1446 | 006232 | 000240 |        | SCOPE |                 |                         |
| 1447 | 006234 | 012703 | 000000 | MOV   | #0,%N           | ;MOV 0 TO %N            |
| 1448 | 006240 | 052703 | 177777 | BIS   | #177777,%N      | ;SELECTIVE SET %N       |
| 1449 | 006244 | 022703 | 177777 | CMP   | #0!177777,%N    | ;COMPARE LITERAL TO %N  |
| 1450 | 006250 | 001401 |        | BEQ   | .+4             | ;TEST FOR EQUAL         |
| 1451 | 006252 | 000000 |        | HLT   |                 | ;BIS INSTRUCTION FAILED |
| 1452 | 006254 | 000240 |        | SCOPE |                 |                         |
| 1453 |        | 000004 |        | N=N+1 |                 |                         |
| 1454 | 006256 | 012704 | 177777 | MOV   | #177777,%N      | ;MOV 177777 TO %N       |
| 1455 | 006262 | 042704 | 000000 | BIC   | #0,%N           | ;SELECTIVELY CLEAR %N   |
| 1456 | 006266 | 022704 | 177777 | CMP   | #-0-1&177777,%N | ;COMPARE LITERAL TO %N  |
| 1457 | 006272 | 001401 |        | BEQ   | .+4             | ;TEST FOR EQUAL         |
| 1458 | 006274 | 000000 |        | HLT   |                 | ;BIC INSTRUCTION FAILED |
| 1459 | 006276 | 000240 |        | SCOPE |                 |                         |
| 1460 | 006300 | 012704 | 177777 | MOV   | #177777,%N      | ;MOV 177777 TO %N       |
| 1461 | 006304 | 052704 | 000000 | BIS   | #0,%N           | ;SELECTIVE SET %N       |
| 1462 | 006310 | 022704 | 177777 | CMP   | #177777!0,%N    | ;COMPARE LITERAL TO %N  |
| 1463 | 006314 | 001401 |        | BEQ   | .+4             | ;TEST FOR EQUAL         |
| 1464 | 006316 | 000000 |        | HLT   |                 | ;BIS INSTRUCTION FAILED |
| 1465 | 006320 | 000240 |        | SCOPE |                 |                         |
| 1466 | 006322 | 012704 | 000000 | MOV   | #0,%N           | ;MOV 0 TO %N            |
| 1467 | 006326 | 042704 | 177777 | BIC   | #177777,%N      | ;SELECTIVELY CLEAR %N   |
| 1468 | 006332 | 022704 | 000000 | CMP   | #-177777-1&0,%N | ;COMPARE LITERAL TO %N  |
| 1469 | 006336 | 001401 |        | BEQ   | .+4             | ;TEST FOR EQUAL         |
| 1470 | 006340 | 000000 |        | HLT   |                 | ;BIC INSTRUCTION FAILED |
| 1471 | 006342 | 000240 |        | SCOPE |                 |                         |
| 1472 | 006344 | 012704 | 000000 | MOV   | #0,%N           | ;MOV 0 TO %N            |
| 1473 | 006350 | 052704 | 177777 | BIS   | #177777,%N      | ;SELECTIVE SET %N       |
| 1474 | 006354 | 022704 | 177777 | CMP   | #0!177777,%N    | ;COMPARE LITERAL TO %N  |
| 1475 | 006360 | 001401 |        | BEQ   | .+4             | ;TEST FOR EQUAL         |
| 1476 | 006362 | 000000 |        | HLT   |                 | ;BIS INSTRUCTION FAILED |
| 1477 | 006364 | 000240 |        | SCOPE |                 |                         |
| 1478 |        | 000005 |        | N=N+1 |                 |                         |
| 1479 | 006366 | 012705 | 177777 | MOV   | #177777,%N      | ;MOV 177777 TO %N       |
| 1480 | 006372 | 042705 | 000000 | BIC   | #0,%N           | ;SELECTIVELY CLEAR %N   |
| 1481 | 006376 | 022705 | 177777 | CMP   | #-0-1&177777,%N | ;COMPARE LITERAL TO %N  |
| 1482 | 006402 | 001401 |        | BEQ   | .+4             | ;TEST FOR EQUAL         |
| 1483 | 006404 | 000000 |        | HLT   |                 | ;BIC INSTRUCTION FAILED |
| 1484 | 006406 | 000240 |        | SCOPE |                 |                         |
| 1485 | 006410 | 012705 | 177777 | MOV   | #177777,%N      | ;MOV 177777 TO %N       |
| 1486 | 006414 | 052705 | 000000 | BIS   | #0,%N           | ;SELECTIVE SET %N       |
| 1487 | 006420 | 022705 | 177777 | CMP   | #177777!0,%N    | ;COMPARE LITERAL TO %N  |
| 1488 | 006424 | 001401 |        | BEQ   | .+4             | ;TEST FOR EQUAL         |
| 1489 | 006426 | 000000 |        | HLT   |                 | ;BIS INSTRUCTION FAILED |
| 1490 | 006430 | 000240 |        | SCOPE |                 |                         |
| 1491 | 006432 | 012705 | 000000 | MOV   | #0,%N           | ;MOV 0 TO %N            |
| 1492 | 006436 | 042705 | 177777 | BIC   | #177777,%N      | ;SELECTIVELY CLEAR %N   |

|      |        |        |               |          |                   |                          |
|------|--------|--------|---------------|----------|-------------------|--------------------------|
| 1493 | 006442 | 022705 | 000000        | CMP      | #-177777-1&0,%N   | ;COMPARE LITERAL TO %N   |
| 1494 | 006446 | 001401 |               | BEQ      | .+4               | ;TEST FOR EQUAL          |
| 1495 | 006450 | 000000 |               | HLT      |                   | ;BIC INSTRUCTION FAILED  |
| 1496 | 006452 | 000240 |               | SCOPE    |                   |                          |
| 1497 | 006454 | 012705 | 000000        | MOV      | #0,%N             | ;MOV 0 TO %N             |
| 1498 | 006460 | 052705 | 177777        | BIS      | #177777,%N        | ;SELECTIVE SET %N        |
| 1499 | 006464 | 022705 | 177777        | CMP      | #0!177777,%N      | ;COMPARE LITERAL TO %N   |
| 1500 | 006470 | 001401 |               | BEQ      | .+4               | ;TEST FOR EQUAL          |
| 1501 | 006472 | 000000 |               | HLT      |                   | ;BIS INSTRUCTION FAILED  |
| 1502 | 006474 | 000240 |               | SCOPE    |                   |                          |
| 1503 |        | 000006 |               | N=N+1    |                   |                          |
| 1504 |        |        |               |          |                   |                          |
| 1505 |        | 000001 |               | N=1      |                   |                          |
| 1506 |        | 177776 |               | M=177776 |                   |                          |
| 1507 | 006476 | 012700 | 000001        | MOV      | #1,RO             | ;MOV 1 TO RO             |
| 1508 | 006502 | 042700 | 177776        | BIC      | #177776,RO        | ;SELECTIVELY CLEAR RO    |
| 1509 | 006506 | 022700 | 000001        | CMP      | #-177776-1&1,RO   | ;COMPARE LITERAL TO RO   |
| 1510 | 006512 | 001401 |               | BEQ      | .+4               | ;TEST FOR EQUAL          |
| 1511 | 006514 | 000000 |               | HLT      |                   | ;BIC INSTRUCTION FAILED  |
| 1512 | 006516 | 000240 |               | SCOPE    |                   |                          |
| 1513 | 006520 | 012700 | 000001        | MOV      | #1,RO             | ;MOV 1 TO RO             |
| 1514 | 006524 | 052700 | 177776        | BIS      | #177776,RO        | ;SELECTIVE SET RO        |
| 1515 | 006530 | 022700 | 177777        | CMP      | #1!177776,RO      | ;COMPARE LITERAL TO RO   |
| 1516 | 006534 | 001401 |               | BEQ      | .+4               | ;TEST FOR EQUAL          |
| 1517 | 006536 | 000000 |               | HLT      |                   | ;BIS INSTRUCTION FAILED  |
| 1518 | 006540 | 000240 |               | SCOPE    |                   |                          |
| 1519 | 006542 | 012700 | 177776        | MOV      | #177776,RO        | ;MOV 177776 TO RO        |
| 1520 | 006546 | 042700 | 000001        | BIC      | #1,RO             | ;SELECTIVELY CLEAR RO    |
| 1521 | 006552 | 022700 | 177776        | CMP      | #-1-1&177776,RO   | ;COMPARE LITERAL TO RO   |
| 1522 | 006556 | 001401 |               | BEQ      | .+4               | ;TEST FOR EQUAL          |
| 1523 | 006560 | 000000 |               | HLT      |                   | ;BIC INSTRUCTION FAILED  |
| 1524 | 006562 | 000240 |               | SCOPE    |                   |                          |
| 1525 | 006564 | 012700 | 177776        | MOV      | #177776,RO        | ;MOV 177776 TO RO        |
| 1526 | 006570 | 052700 | 000001        | BIS      | #1,RO             | ;SELECTIVE SET RO        |
| 1527 | 006574 | 022700 | 177777        | CMP      | #177776!1,RO      | ;COMPARE LITERAL TO RO   |
| 1528 | 006600 | 001401 |               | BEQ      | .+4               | ;TEST FOR EQUAL          |
| 1529 | 006602 | 000000 |               | HLT      |                   | ;BIS INSTRUCTION FAILED  |
| 1530 | 006604 | 000240 |               | SCOPE    |                   |                          |
| 1531 | 006606 | 012767 | 000001 005336 | MOV      | #1,TEMP           | ;MOV 1 TO TEMP           |
| 1532 | 006614 | 042767 | 177776 005330 | BIC      | #177776,TEMP      | ;SELECTIVELY CLEAR TEMP  |
| 1533 | 006622 | 022767 | 000001 005322 | CMP      | #-177776-1&1,TEMP | ;COMPARE LITERAL TO TEMP |
| 1534 | 006630 | 001401 |               | BEQ      | .+4               | ;TEST FOR EQUAL          |
| 1535 | 006632 | 000000 |               | HLT      |                   | ;BIC INSTRUCTION FAILED  |
| 1536 | 006634 | 000240 |               | SCOPE    |                   |                          |
| 1537 | 006636 | 012767 | 000001 005306 | MOV      | #1,TEMP           | ;MOV 1 TO TEMP           |
| 1538 | 006644 | 052767 | 177776 005300 | BIS      | #177776,TEMP      | ;SELECTIVE SET TEMP      |
| 1539 | 006652 | 022767 | 177777 005272 | CMP      | #1!177776,TEMP    | ;COMPARE LITERAL TO TEMP |
| 1540 | 006660 | 001401 |               | BEQ      | .+4               | ;TEST FOR EQUAL          |
| 1541 | 006662 | 000000 |               | HLT      |                   | ;BIS INSTRUCTION FAILED  |
| 1542 | 006664 | 000240 |               | SCOPE    |                   |                          |
| 1543 | 006666 | 012767 | 177776 005256 | MOV      | #177776,TEMP      | ;MOV 177776 TO TEMP      |
| 1544 | 006674 | 042767 | 000001 005250 | BIC      | #1,TEMP           | ;SELECTIVELY CLEAR TEMP  |
| 1545 | 006702 | 022767 | 177776 005242 | CMP      | #-1-1&177776,TEMP | ;COMPARE LITERAL TO TEMP |
| 1546 | 006710 | 001401 |               | BEQ      | .+4               | ;TEST FOR EQUAL          |
| 1547 | 006712 | 000000 |               | HLT      |                   | ;BIC INSTRUCTION FAILED  |
| 1548 | 006714 | 000240 |               | SCOPE    |                   |                          |



## H03

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|      |        |        |        |        |         |                   |                          |
|------|--------|--------|--------|--------|---------|-------------------|--------------------------|
| 1549 | 006716 | 012767 | 177776 | 005226 | MOV     | #177776,TEMP      | ;MOV 177776 TO TEMP      |
| 1550 | 006724 | 052767 | 000001 | 005220 | BIS     | #1,TEMP           | ;SELECTIVE SET TEMP      |
| 1551 | 006732 | 022767 | 177777 | 005212 | CMP     | #177776!1,TEMP    | ;COMPARE LITERAL TO TEMP |
| 1552 | 006740 | 001401 |        |        | BEQ     | .+4               | ;TEST FOR EQUAL          |
| 1553 | 006742 | 000000 |        |        | HLT     |                   | ;BIS INSTRUCTION FAILED  |
| 1554 | 006744 | 000240 |        |        | SCOPE   |                   |                          |
| 1555 |        | 000002 |        |        | N=N+N   |                   |                          |
| 1556 |        | 177775 |        |        | M=M+M+1 |                   |                          |
| 1557 | 006746 | 012700 | 000002 |        | MOV     | #2,RO             | ;MOV 2 TO RO             |
| 1558 | 006752 | 042700 | 177775 |        | BIC     | #177775,RO        | ;SELECTIVELY CLEAR RO    |
| 1559 | 006756 | 022700 | 000002 |        | CMP     | #-177775-1&2,RO   | ;COMPARE LITERAL TO RO   |
| 1560 | 006762 | 001401 |        |        | BEQ     | .+4               | ;TEST FOR EQUAL          |
| 1561 | 006764 | 000000 |        |        | HLT     |                   | ;BIC INSTRUCTION FAILED  |
| 1562 | 006766 | 000240 |        |        | SCOPE   |                   |                          |
| 1563 | 006770 | 012700 | 000002 |        | MOV     | #2,RO             | ;MOV 2 TO RO             |
| 1564 | 006774 | 052700 | 177775 |        | BIS     | #177775,RO        | ;SELECTIVE SET RO        |
| 1565 | 007000 | 022700 | 177777 |        | CMP     | #2!177775,RO      | ;COMPARE LITERAL TO RO   |
| 1566 | 007004 | 001401 |        |        | BEQ     | .+4               | ;TEST FOR EQUAL          |
| 1567 | 007006 | 000000 |        |        | HLT     |                   | ;BIS INSTRUCTION FAILED  |
| 1568 | 007010 | 000240 |        |        | SCOPE   |                   |                          |
| 1569 | 007012 | 012700 | 177775 |        | MOV     | #177775,RO        | ;MOV 177775 TO RO        |
| 1570 | 007016 | 042700 | 000002 |        | BIC     | #2,RO             | ;SELECTIVELY CLEAR RO    |
| 1571 | 007022 | 022700 | 177775 |        | CMP     | #-2-1&177775,RO   | ;COMPARE LITERAL TO RO   |
| 1572 | 007026 | 001401 |        |        | BEQ     | .+4               | ;TEST FOR EQUAL          |
| 1573 | 007030 | 000000 |        |        | HLT     |                   | ;BIC INSTRUCTION FAILED  |
| 1574 | 007032 | 000240 |        |        | SCOPE   |                   |                          |
| 1575 | 007034 | 012700 | 177775 |        | MOV     | #177775,RO        | ;MOV 177775 TO RO        |
| 1576 | 007040 | 052700 | 000002 |        | BIS     | #2,RO             | ;SELECTIVE SET RO        |
| 1577 | 007044 | 022700 | 177777 |        | CMP     | #177775!2,RO      | ;COMPARE LITERAL TO RO   |
| 1578 | 007050 | 001401 |        |        | BEQ     | .+4               | ;TEST FOR EQUAL          |
| 1579 | 007052 | 000000 |        |        | HLT     |                   | ;BIS INSTRUCTION FAILED  |
| 1580 | 007054 | 000240 |        |        | SCOPE   |                   |                          |
| 1581 | 007056 | 012767 | 000002 | 005066 | MOV     | #2,TEMP           | ;MOV 2 TO TEMP           |
| 1582 | 007064 | 042767 | 177775 | 005060 | BIC     | #177775,TEMP      | ;SELECTIVELY CLEAR TEMP  |
| 1583 | 007072 | 022767 | 000002 | 005052 | CMP     | #-177775-1&2,TEMP | ;COMPARE LITERAL TO TEMP |
| 1584 | 007100 | 001401 |        |        | BEQ     | .+4               | ;TEST FOR EQUAL          |
| 1585 | 007102 | 000000 |        |        | HLT     |                   | ;BIC INSTRUCTION FAILED  |
| 1586 | 007104 | 000240 |        |        | SCOPE   |                   |                          |
| 1587 | 007106 | 012767 | 000002 | 005036 | MOV     | #2,TEMP           | ;MOV 2 TO TEMP           |
| 1588 | 007114 | 052767 | 177775 | 005030 | BIS     | #177775,TEMP      | ;SELECTIVE SET TEMP      |
| 1589 | 007122 | 022767 | 177777 | 005022 | CMP     | #2!177775,TEMP    | ;COMPARE LITERAL TO TEMP |
| 1590 | 007130 | 001401 |        |        | BEQ     | .+4               | ;TEST FOR EQUAL          |
| 1591 | 007132 | 000000 |        |        | HLT     |                   | ;BIS INSTRUCTION FAILED  |
| 1592 | 007134 | 000240 |        |        | SCOPE   |                   |                          |
| 1593 | 007136 | 012767 | 177775 | 005006 | MOV     | #177775,TEMP      | ;MOV 177775 TO TEMP      |
| 1594 | 007144 | 042767 | 000002 | 005000 | BIC     | #2,TEMP           | ;SELECTIVELY CLEAR TEMP  |
| 1595 | 007152 | 022767 | 177775 | 004772 | CMP     | #-2-1&177775,TEMP | ;COMPARE LITERAL TO TEMP |
| 1596 | 007160 | 001401 |        |        | BEQ     | .+4               | ;TEST FOR EQUAL          |
| 1597 | 007162 | 000000 |        |        | HLT     |                   | ;BIC INSTRUCTION FAILED  |
| 1598 | 007164 | 000240 |        |        | SCOPE   |                   |                          |
| 1599 | 007166 | 012767 | 177775 | 004756 | MOV     | #177775,TEMP      | ;MOV 177775 TO TEMP      |
| 1600 | 007174 | 052767 | 000002 | 004750 | BIS     | #2,TEMP           | ;SELECTIVE SET TEMP      |
| 1601 | 007202 | 022767 | 177777 | 004742 | CMP     | #177775!2,TEMP    | ;COMPARE LITERAL TO TEMP |
| 1602 | 007210 | 001401 |        |        | BEQ     | .+4               | ;TEST FOR EQUAL          |
| 1603 | 007212 | 000000 |        |        | HLT     |                   | ;BIS INSTRUCTION FAILED  |
| 1604 | 007214 | 000240 |        |        | SCOPE   |                   |                          |

|      |        |        |               |         |                                            |
|------|--------|--------|---------------|---------|--------------------------------------------|
| 1605 |        | 000004 |               | N=N+N   |                                            |
| 1606 |        | 177773 |               | M=M+M+1 |                                            |
| 1607 | 007216 | 012700 | 000004        | MOV     | #4,RO ;MOV 4 TO RO                         |
| 1608 | 007222 | 042700 | 177773        | BIC     | #177773,RO ;SELECTIVELY CLEAR RO           |
| 1609 | 007226 | 022700 | 000004        | CMP     | #-177773-1&4,RO ;COMPARE LITERAL TO RO     |
| 1610 | 007232 | 001401 |               | BEQ     | +.4 ;TEST FOR EQUAL                        |
| 1611 | 007234 | 000000 |               | HLT     | ;BIC INSTRUCTION FAILED                    |
| 1612 | 007236 | 000240 |               | SCOPE   |                                            |
| 1613 | 007240 | 012700 | 000004        | MOV     | #4,RO ;MOV 4 TO RO                         |
| 1614 | 007244 | 052700 | 177773        | BIS     | #177773,RO ;SELECTIVE SET RO               |
| 1615 | 007250 | 022700 | 177777        | CMP     | #4!177773,RO ;COMPARE LITERAL TO RO        |
| 1616 | 007254 | 001401 |               | BEQ     | +.4 ;TEST FOR EQUAL                        |
| 1617 | 007256 | 000000 |               | HLT     | ;BIS INSTRUCTION FAILED                    |
| 1618 | 007260 | 000240 |               | SCOPE   |                                            |
| 1619 | 007262 | 012700 | 177773        | MOV     | #177773,RO ;MOV 177773 TO RO               |
| 1620 | 007266 | 042700 | 000004        | BIC     | #4,RO ;SELECTIVELY CLEAR RO                |
| 1621 | 007272 | 022700 | 177773        | CMP     | #-4-1&177773,RO ;COMPARE LITERAL TO RO     |
| 1622 | 007276 | 001401 |               | BEQ     | +.4 ;TEST FOR EQUAL                        |
| 1623 | 007300 | 000000 |               | HLT     | ;BIC INSTRUCTION FAILED                    |
| 1624 | 007302 | 000240 |               | SCOPE   |                                            |
| 1625 | 007304 | 012700 | 177773        | MOV     | #177773,RO ;MOV 177773 TO RO               |
| 1626 | 007310 | 052700 | 000004        | BIS     | #4,RO ;SELECTIVE SET RO                    |
| 1627 | 007314 | 022700 | 177777        | CMP     | #177773!4,RO ;COMPARE LITERAL TO RO        |
| 1628 | 007320 | 001401 |               | BEQ     | +.4 ;TEST FOR EQUAL                        |
| 1629 | 007322 | 000000 |               | HLT     | ;BIS INSTRUCTION FAILED                    |
| 1630 | 007324 | 000240 |               | SCOPE   |                                            |
| 1631 | 007326 | 012767 | 000004 004616 | MOV     | #4,TEMP ;MOV 4 TO TEMP                     |
| 1632 | 007334 | 042767 | 177773 004610 | BIC     | #177773,TEMP ;SELECTIVELY CLEAR TEMP       |
| 1633 | 007342 | 022767 | 000004 004602 | CMP     | #-177773-1&4,TEMP ;COMPARE LITERAL TO TEMP |
| 1634 | 007350 | 001401 |               | BEQ     | +.4 ;TEST FOR EQUAL                        |
| 1635 | 007352 | 000000 |               | HLT     | ;BIC INSTRUCTION FAILED                    |
| 1636 | 007354 | 000240 |               | SCOPE   |                                            |
| 1637 | 007356 | 012767 | 000004 004566 | MOV     | #4,TEMP ;MOV 4 TO TEMP                     |
| 1638 | 007364 | 052767 | 177773 004560 | BIS     | #177773,TEMP ;SELECTIVE SET TEMP           |
| 1639 | 007372 | 022767 | 177777 004552 | CMP     | #4!177773,TEMP ;COMPARE LITERAL TO TEMP    |
| 1640 | 007400 | 001401 |               | BEQ     | +.4 ;TEST FOR EQUAL                        |
| 1641 | 007402 | 000000 |               | HLT     | ;BIS INSTRUCTION FAILED                    |
| 1642 | 007404 | 000240 |               | SCOPE   |                                            |
| 1643 | 007406 | 012767 | 177773 004536 | MOV     | #177773,TEMP ;MOV 177773 TO TEMP           |
| 1644 | 007414 | 042767 | 000004 004530 | BIC     | #4,TEMP ;SELECTIVELY CLEAR TEMP            |
| 1645 | 007422 | 022767 | 177773 004522 | CMP     | #-4-1&177773,TEMP ;COMPARE LITERAL TO TEMP |
| 1646 | 007430 | 001401 |               | BEQ     | +.4 ;TEST FOR EQUAL                        |
| 1647 | 007432 | 000000 |               | HLT     | ;BIC INSTRUCTION FAILED                    |
| 1648 | 007434 | 000240 |               | SCOPE   |                                            |
| 1649 | 007436 | 012767 | 177773 004506 | MOV     | #177773,TEMP ;MOV 177773 TO TEMP           |
| 1650 | 007444 | 052767 | 000004 004500 | BIS     | #4,TEMP ;SELECTIVE SET TEMP                |
| 1651 | 007452 | 022767 | 177777 004472 | CMP     | #177773!4,TEMP ;COMPARE LITERAL TO TEMP    |
| 1652 | 007460 | 001401 |               | BEQ     | +.4 ;TEST FOR EQUAL                        |
| 1653 | 007462 | 000000 |               | HLT     | ;BIS INSTRUCTION FAILED                    |
| 1654 | 007464 | 000240 |               | SCOPE   |                                            |
| 1655 |        | 000010 |               | N=N+N   |                                            |
| 1656 |        | 177767 |               | M=M+M+1 |                                            |
| 1657 | 007466 | 012700 | 000010        | MOV     | #10,RO ;MOV 10 TO RO                       |
| 1658 | 007472 | 042700 | 177767        | BIC     | #177767,RO ;SELECTIVELY CLEAR RO           |
| 1659 | 007476 | 022700 | 000010        | CMP     | #-177767-1&10,RO ;COMPARE LITERAL TO RO    |
| 1660 | 007502 | 001401 |               | BEQ     | +.4 ;TEST FOR EQUAL                        |



|      |        |        |               |         |                    |                          |
|------|--------|--------|---------------|---------|--------------------|--------------------------|
| 1661 | 007504 | 000000 |               | HLT     |                    | ;BIC INSTRUCTION FAILED  |
| 1662 | 007506 | 000240 |               | SCOPE   |                    |                          |
| 1663 | 007510 | 012700 | 000010        | MOV     | #10,RO             | ;MOV 10 TO RO            |
| 1664 | 007514 | 052700 | 177767        | BIS     | #177767,RO         | ;SELECTIVE SET RO        |
| 1665 | 007520 | 022700 | 177777        | CMP     | #10!177767,RO      | ;COMPARE LITERAL TO RO   |
| 1666 | 007524 | 001401 |               | BEQ     | +.4                | ;TEST FOR EQUAL          |
| 1667 | 007526 | 000000 |               | HLT     |                    | ;BIS INSTRUCTION FAILED  |
| 1668 | 007530 | 000240 |               | SCOPE   |                    |                          |
| 1669 | 007532 | 012700 | 177767        | MOV     | #177767,RO         | ;MOV 177767 TO RO        |
| 1670 | 007536 | 042700 | 000010        | BIC     | #10,RO             | ;SELECTIVELY CLEAR RO    |
| 1671 | 007542 | 022700 | 177767        | CMP     | #-10-1&177767,RO   | ;COMPARE LITERAL TO RO   |
| 1672 | 007546 | 001401 |               | BEQ     | +.4                | ;TEST FOR EQUAL          |
| 1673 | 007550 | 000000 |               | HLT     |                    | ;BIC INSTRUCTION FAILED  |
| 1674 | 007552 | 000240 |               | SCOPE   |                    |                          |
| 1675 | 007554 | 012700 | 177767        | MOV     | #177767,RO         | ;MOV 177767 TO RO        |
| 1676 | 007560 | 052700 | 000010        | BIS     | #10,RO             | ;SELECTIVE SET RO        |
| 1677 | 007564 | 022700 | 177777        | CMP     | #177767!10,RO      | ;COMPARE LITERAL TO RO   |
| 1678 | 007570 | 001401 |               | BEQ     | +.4                | ;TEST FOR EQUAL          |
| 1679 | 007572 | 000000 |               | HLT     |                    | ;BIS INSTRUCTION FAILED  |
| 1680 | 007574 | 000240 |               | SCOPE   |                    |                          |
| 1681 | 007576 | 012767 | 000010 004346 | MOV     | #10,TEMP           | ;MOV 10 TO TEMP          |
| 1682 | 007604 | 042767 | 177767 004340 | BIC     | #177767,TEMP       | ;SELECTIVELY CLEAR TEMP  |
| 1683 | 007612 | 022767 | 000010 004332 | CMP     | #-177767-1&10,TEMP | ;COMPARE LITERAL TO TEMP |
| 1684 | 007620 | 001401 |               | BEQ     | +.4                | ;TEST FOR EQUAL          |
| 1685 | 007622 | 000000 |               | HLT     |                    | ;BIC INSTRUCTION FAILED  |
| 1686 | 007624 | 000240 |               | SCOPE   |                    |                          |
| 1687 | 007626 | 012767 | 000010 004316 | MOV     | #10,TEMP           | ;MOV 10 TO TEMP          |
| 1688 | 007634 | 052767 | 177767 004310 | BIS     | #177767,TEMP       | ;SELECTIVE SET TEMP      |
| 1689 | 007642 | 022767 | 177777 004302 | CMP     | #10!177767,TEMP    | ;COMPARE LITERAL TO TEMP |
| 1690 | 007650 | 001401 |               | BEQ     | +.4                | ;TEST FOR EQUAL          |
| 1691 | 007652 | 000000 |               | HLT     |                    | ;BIS INSTRUCTION FAILED  |
| 1692 | 007654 | 000240 |               | SCOPE   |                    |                          |
| 1693 | 007656 | 012767 | 177767 004266 | MOV     | #177767,TEMP       | ;MOV 177767 TO TEMP      |
| 1694 | 007664 | 042767 | 000010 004260 | BIC     | #10,TEMP           | ;SELECTIVELY CLEAR TEMP  |
| 1695 | 007672 | 022767 | 177767 004252 | CMP     | #-10-1&177767,TEMP | ;COMPARE LITERAL TO TEMP |
| 1696 | 007700 | 001401 |               | BEQ     | +.4                | ;TEST FOR EQUAL          |
| 1697 | 007702 | 000000 |               | HLT     |                    | ;BIC INSTRUCTION FAILED  |
| 1698 | 007704 | 000240 |               | SCOPE   |                    |                          |
| 1699 | 007706 | 012767 | 177767 004236 | MOV     | #177767,TEMP       | ;MOV 177767 TO TEMP      |
| 1700 | 007714 | 052767 | 000010 004230 | BIS     | #10,TEMP           | ;SELECTIVE SET TEMP      |
| 1701 | 007722 | 022767 | 177777 004222 | CMP     | #177767!10,TEMP    | ;COMPARE LITERAL TO TEMP |
| 1702 | 007730 | 001401 |               | BEQ     | +.4                | ;TEST FOR EQUAL          |
| 1703 | 007732 | 000000 |               | HLT     |                    | ;BIS INSTRUCTION FAILED  |
| 1704 | 007734 | 000240 |               | SCOPE   |                    |                          |
| 1705 |        | 000020 |               | N=N+N   |                    |                          |
| 1706 |        | 177757 |               | M=M+M+1 |                    |                          |
| 1707 | 007736 | 012700 | 000020        | MOV     | #20,RO             | ;MOV 20 TO RO            |
| 1708 | 007742 | 042700 | 177757        | BIC     | #177757,RO         | ;SELECTIVELY CLEAR RO    |
| 1709 | 007746 | 022700 | 000020        | CMP     | #-177757-1&20,RO   | ;COMPARE LITERAL TO RO   |
| 1710 | 007752 | 001401 |               | BEQ     | +.4                | ;TEST FOR EQUAL          |
| 1711 | 007754 | 000000 |               | HLT     |                    | ;BIC INSTRUCTION FAILED  |
| 1712 | 007756 | 000240 |               | SCOPE   |                    |                          |
| 1713 | 007760 | 012700 | 000020        | MOV     | #20,RO             | ;MOV 20 TO RO            |
| 1714 | 007764 | 052700 | 177757        | BIS     | #177757,RO         | ;SELECTIVE SET RO        |
| 1715 | 007770 | 022700 | 177777        | CMP     | #20!177757,RO      | ;COMPARE LITERAL TO RO   |
| 1716 | 007774 | 001401 |               | BEQ     | +.4                | ;TEST FOR EQUAL          |

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|      |        |        |               |         |                    |                          |
|------|--------|--------|---------------|---------|--------------------|--------------------------|
| 1717 | 007776 | 000000 |               | HLT     |                    | ;BIS INSTRUCTION FAILED  |
| 1718 | 010000 | 000240 |               | SCOPE   |                    |                          |
| 1719 | 010002 | 012700 | 177757        | MOV     | #177757,RO         | ;MOV 177757 TO RO        |
| 1720 | 010006 | 042700 | 000020        | BIC     | #20,RO             | ;SELECTIVELY CLEAR RO    |
| 1721 | 010012 | 022700 | 177757        | CMP     | #-20-1&177757,RO   | ;COMPARE LITERAL TO RO   |
| 1722 | 010016 | 001401 |               | BEQ     | +.4                | ;TEST FOR EQUAL          |
| 1723 | 010020 | 000000 |               | HLT     |                    | ;BIC INSTRUCTION FAILED  |
| 1724 | 010022 | 000240 |               | SCOPE   |                    |                          |
| 1725 | 010024 | 012700 | 177757        | MOV     | #177757,RO         | ;MOV 177757 TO RO        |
| 1726 | 010030 | 052700 | 000020        | BIS     | #20,RO             | ;SELECTIVE SET RO        |
| 1727 | 010034 | 022700 | 177777        | CMP     | #177757!20,RO      | ;COMPARE LITERAL TO RO   |
| 1728 | 010040 | 001401 |               | BEQ     | +.4                | ;TEST FOR EQUAL          |
| 1729 | 010042 | 000000 |               | HLT     |                    | ;BIS INSTRUCTION FAILED  |
| 1730 | 010044 | 000240 |               | SCOPE   |                    |                          |
| 1731 | 010046 | 012767 | 000020 004076 | MOV     | #20,TEMP           | ;MOV 20 TO TEMP          |
| 1732 | 010054 | 042767 | 177757 004070 | BIC     | #177757,TEMP       | ;SELECTIVELY CLEAR TEMP  |
| 1733 | 010062 | 022767 | 000020 004062 | CMP     | #-177757-1&20,TEMP | ;COMPARE LITERAL TO TEMP |
| 1734 | 010070 | 001401 |               | BEQ     | +.4                | ;TEST FOR EQUAL          |
| 1735 | 010072 | 000000 |               | HLT     |                    | ;BIC INSTRUCTION FAILED  |
| 1736 | 010074 | 000240 |               | SCOPE   |                    |                          |
| 1737 | 010076 | 012767 | 000020 004046 | MOV     | #20,TEMP           | ;MOV 20 TO TEMP          |
| 1738 | 010104 | 052767 | 177757 004040 | BIS     | #177757,TEMP       | ;SELECTIVE SET TEMP      |
| 1739 | 010112 | 022767 | 177777 004032 | CMP     | #20!177757,TEMP    | ;COMPARE LITERAL TO TEMP |
| 1740 | 010120 | 001401 |               | BEQ     | +.4                | ;TEST FOR EQUAL          |
| 1741 | 010122 | 000000 |               | HLT     |                    | ;BIS INSTRUCTION FAILED  |
| 1742 | 010124 | 000240 |               | SCOPE   |                    |                          |
| 1743 | 010126 | 012767 | 177757 004016 | MOV     | #177757,TEMP       | ;MOV 177757 TO TEMP      |
| 1744 | 010134 | 042767 | 000020 004010 | BIC     | #20,TEMP           | ;SELECTIVELY CLEAR TEMP  |
| 1745 | 010142 | 022767 | 177757 004002 | CMP     | #-20-1&177757,TEMP | ;COMPARE LITERAL TO TEMP |
| 1746 | 010150 | 001401 |               | BEQ     | +.4                | ;TEST FOR EQUAL          |
| 1747 | 010152 | 000000 |               | HLT     |                    | ;BIC INSTRUCTION FAILED  |
| 1748 | 010154 | 000240 |               | SCOPE   |                    |                          |
| 1749 | 010156 | 012767 | 177757 003766 | MOV     | #177757,TEMP       | ;MOV 177757 TO TEMP      |
| 1750 | 010164 | 052767 | 000020 003760 | BIS     | #20,TEMP           | ;SELECTIVE SET TEMP      |
| 1751 | 010172 | 022767 | 177777 003752 | CMP     | #177757!20,TEMP    | ;COMPARE LITERAL TO TEMP |
| 1752 | 010200 | 001401 |               | BEQ     | +.4                | ;TEST FOR EQUAL          |
| 1753 | 010202 | 000000 |               | HLT     |                    | ;BIS INSTRUCTION FAILED  |
| 1754 | 010204 | 000240 |               | SCOPE   |                    |                          |
| 1755 |        | 000040 |               | N=N+N   |                    |                          |
| 1756 |        | 177737 |               | M=M+M+1 |                    |                          |
| 1757 | 010206 | 012700 | 000040        | MOV     | #40,RO             | ;MOV 40 TO RO            |
| 1758 | 010212 | 042700 | 177737        | BIC     | #177737,RO         | ;SELECTIVELY CLEAR RO    |
| 1759 | 010216 | 022700 | 000040        | CMP     | #-177737-1&40,RO   | ;COMPARE LITERAL TO RO   |
| 1760 | 010222 | 001401 |               | BEQ     | +.4                | ;TEST FOR EQUAL          |
| 1761 | 010224 | 000000 |               | HLT     |                    | ;BIC INSTRUCTION FAILED  |
| 1762 | 010226 | 000240 |               | SCOPE   |                    |                          |
| 1763 | 010230 | 012700 | 000040        | MOV     | #40,RO             | ;MOV 40 TO RO            |
| 1764 | 010234 | 052700 | 177737        | BIS     | #177737,RO         | ;SELECTIVE SET RO        |
| 1765 | 010240 | 022700 | 177777        | CMP     | #40!177737,RO      | ;COMPARE LITERAL TO RO   |
| 1766 | 010244 | 001401 |               | BEQ     | +.4                | ;TEST FOR EQUAL          |
| 1767 | 010246 | 000000 |               | HLT     |                    | ;BIS INSTRUCTION FAILED  |
| 1768 | 010250 | 000240 |               | SCOPE   |                    |                          |
| 1769 | 010252 | 012700 | 177737        | MOV     | #177737,RO         | ;MOV 177737 TO RO        |
| 1770 | 010256 | 042700 | 000040        | BIC     | #40,RO             | ;SELECTIVELY CLEAR RO    |
| 1771 | 010262 | 022700 | 177737        | CMP     | #-40-1&177737,RO   | ;COMPARE LITERAL TO RO   |
| 1772 | 010266 | 001401 |               | BEQ     | +.4                | ;TEST FOR EQUAL          |



|      |        |        |               |         |                    |                          |
|------|--------|--------|---------------|---------|--------------------|--------------------------|
| 1773 | 010270 | 000000 |               | HLT     |                    | ;BIC INSTRUCTION FAILED  |
| 1774 | 010272 | 000240 |               | SCOPE   |                    |                          |
| 1775 | 010274 | 012700 | 177737        | MOV     | #177737,RO         | ;MOV 177737 TO RO        |
| 1776 | 010300 | 052700 | 000040        | BIS     | #40,RO             | ;SELECTIVE SET RO        |
| 1777 | 010304 | 022700 | 177777        | CMP     | #177737!40,RO      | ;COMPARE LITERAL TO RO   |
| 1778 | 010310 | 001401 |               | BEQ     | +.4                | ;TEST FOR EQUAL          |
| 1779 | 010312 | 000000 |               | HLT     |                    | ;BIS INSTRUCTION FAILED  |
| 1780 | 010314 | 000240 |               | SCOPE   |                    |                          |
| 1781 | 010316 | 012767 | 000040 003626 | MOV     | #40,TEMP           | ;MOV 40 TO TEMP          |
| 1782 | 010324 | 042767 | 177737 003620 | BIC     | #177737,TEMP       | ;SELECTIVELY CLEAR TEMP  |
| 1783 | 010332 | 022767 | 000040 003612 | CMP     | #-177737-1&40,TEMP | ;COMPARE LITERAL TO TEMP |
| 1784 | 010340 | 001401 |               | BEQ     | +.4                | ;TEST FOR EQUAL          |
| 1785 | 010342 | 000000 |               | HLT     |                    | ;BIC INSTRUCTION FAILED  |
| 1786 | 010344 | 000240 |               | SCOPE   |                    |                          |
| 1787 | 010346 | 012767 | 000040 003576 | MOV     | #40,TEMP           | ;MOV 40 TO TEMP          |
| 1788 | 010354 | 052767 | 177737 003570 | BIS     | #177737,TEMP       | ;SELECTIVE SET TEMP      |
| 1789 | 010362 | 022767 | 177777 003562 | CMP     | #40!177737,TEMP    | ;COMPARE LITERAL TO TEMP |
| 1790 | 010370 | 001401 |               | BEQ     | +.4                | ;TEST FOR EQUAL          |
| 1791 | 010372 | 000000 |               | HLT     |                    | ;BIS INSTRUCTION FAILED  |
| 1792 | 010374 | 000240 |               | SCOPE   |                    |                          |
| 1793 | 010376 | 012767 | 177737 003546 | MOV     | #177737,TEMP       | ;MOV 177737 TO TEMP      |
| 1794 | 010404 | 042767 | 000040 003540 | BIC     | #40,TEMP           | ;SELECTIVELY CLEAR TEMP  |
| 1795 | 010412 | 022767 | 177737 003532 | CMP     | #-40-1&177737,TEMP | ;COMPARE LITERAL TO TEMP |
| 1796 | 010420 | 001401 |               | BEQ     | +.4                | ;TEST FOR EQUAL          |
| 1797 | 010422 | 000000 |               | HLT     |                    | ;BIC INSTRUCTION FAILED  |
| 1798 | 010424 | 000240 |               | SCOPE   |                    |                          |
| 1799 | 010426 | 012767 | 177737 003516 | MOV     | #177737,TEMP       | ;MOV 177737 TO TEMP      |
| 1800 | 010434 | 052767 | 000040 003510 | BIS     | #40,TEMP           | ;SELECTIVE SET TEMP      |
| 1801 | 010442 | 022767 | 177777 003502 | CMP     | #177737!40,TEMP    | ;COMPARE LITERAL TO TEMP |
| 1802 | 010450 | 001401 |               | BEQ     | +.4                | ;TEST FOR EQUAL          |
| 1803 | 010452 | 000000 |               | HLT     |                    | ;BIS INSTRUCTION FAILED  |
| 1804 | 010454 | 000240 |               | SCOPE   |                    |                          |
| 1805 |        | 000100 |               | N=N+N   |                    |                          |
| 1806 |        | 177677 |               | M=M+M+1 |                    |                          |
| 1807 | 010456 | 012700 | 000100        | MOV     | #100,RO            | ;MOV 100 TO RO           |
| 1808 | 010462 | 042700 | 177677        | BIC     | #177677,RO         | ;SELECTIVELY CLEAR RO    |
| 1809 | 010466 | 022700 | 000100        | CMP     | #-177677-1&100,RO  | ;COMPARE LITERAL TO RO   |
| 1810 | 010472 | 001401 |               | BEQ     | +.4                | ;TEST FOR EQUAL          |
| 1811 | 010474 | 000000 |               | HLT     |                    | ;BIC INSTRUCTION FAILED  |
| 1812 | 010476 | 000240 |               | SCOPE   |                    |                          |
| 1813 | 010500 | 012700 | 000100        | MOV     | #100,RO            | ;MOV 100 TO RO           |
| 1814 | 010504 | 052700 | 177677        | BIS     | #177677,RO         | ;SELECTIVE SET RO        |
| 1815 | 010510 | 022700 | 177777        | CMP     | #100!177677,RO     | ;COMPARE LITERAL TO RO   |
| 1816 | 010514 | 001401 |               | BEQ     | +.4                | ;TEST FOR EQUAL          |
| 1817 | 010516 | 000000 |               | HLT     |                    | ;BIS INSTRUCTION FAILED  |
| 1818 | 010520 | 000240 |               | SCOPE   |                    |                          |
| 1819 | 010522 | 012700 | 177677        | MOV     | #177677,RO         | ;MOV 177677 TO RO        |
| 1820 | 010526 | 042700 | 000100        | BIC     | #100,RO            | ;SELECTIVELY CLEAR RO    |
| 1821 | 010532 | 022700 | 177677        | CMP     | #-100-1&177677,RO  | ;COMPARE LITERAL TO RO   |
| 1822 | 010536 | 001401 |               | BEQ     | +.4                | ;TEST FOR EQUAL          |
| 1823 | 010540 | 000000 |               | HLT     |                    | ;BIC INSTRUCTION FAILED  |
| 1824 | 010542 | 000240 |               | SCOPE   |                    |                          |
| 1825 | 010544 | 012700 | 177677        | MOV     | #177677,RO         | ;MOV 177677 TO RO        |
| 1826 | 010550 | 052700 | 000100        | BIS     | #100,RO            | ;SELECTIVE SET RO        |
| 1827 | 010554 | 022700 | 177777        | CMP     | #177677!100,RO     | ;COMPARE LITERAL TO RO   |
| 1828 | 010560 | 001401 |               | BEQ     | +.4                | ;TEST FOR EQUAL          |



|      |        |        |               |         |                     |                          |
|------|--------|--------|---------------|---------|---------------------|--------------------------|
| 1829 | 010562 | 000000 |               | HLT     |                     | ;BIS INSTRUCTION FAILED  |
| 1830 | 010564 | 000240 |               | SCOPE   |                     |                          |
| 1831 | 010566 | 012767 | 000100 003356 | MOV     | #100,TEMP           | ;MOV 100 TO TEMP         |
| 1832 | 010574 | 042767 | 177677 003350 | BIC     | #177677,TEMP        | ;SELECTIVELY CLEAR TEMP  |
| 1833 | 010602 | 022767 | 000100 003342 | CMP     | #-177677-1&100,TEMP | ;COMPARE LITERAL TO TEMP |
| 1834 | 010610 | 001401 |               | BEQ     | .+4                 | ;TEST FOR EQUAL          |
| 1835 | 010612 | 000000 |               | HLT     |                     | ;BIC INSTRUCTION FAILED  |
| 1836 | 010614 | 000240 |               | SCOPE   |                     |                          |
| 1837 | 010616 | 012767 | 000100 003326 | MOV     | #100,TEMP           | ;MOV 100 TO TEMP         |
| 1838 | 010624 | 052767 | 177677 003320 | BIS     | #177677,TEMP        | ;SELECTIVE SET TEMP      |
| 1839 | 010632 | 022767 | 177777 003312 | CMP     | #100!177677,TEMP    | ;COMPARE LITERAL TO TEMP |
| 1840 | 010640 | 001401 |               | BEQ     | .+4                 | ;TEST FOR EQUAL          |
| 1841 | 010642 | 000000 |               | HLT     |                     | ;BIS INSTRUCTION FAILED  |
| 1842 | 010644 | 000240 |               | SCOPE   |                     |                          |
| 1843 | 010646 | 012767 | 177677 003276 | MOV     | #177677,TEMP        | ;MOV 177677 TO TEMP      |
| 1844 | 010654 | 042767 | 000100 003270 | BIC     | #100,TEMP           | ;SELECTIVELY CLEAR TEMP  |
| 1845 | 010662 | 022767 | 177677 003262 | CMP     | #-100-1&177677,TEMP | ;COMPARE LITERAL TO TEMP |
| 1846 | 010670 | 001401 |               | BEQ     | .+4                 | ;TEST FOR EQUAL          |
| 1847 | 010672 | 000000 |               | HLT     |                     | ;BIC INSTRUCTION FAILED  |
| 1848 | 010674 | 000240 |               | SCOPE   |                     |                          |
| 1849 | 010676 | 012767 | 177677 003246 | MOV     | #177677,TEMP        | ;MOV 177677 TO TEMP      |
| 1850 | 010704 | 052767 | 000100 003240 | BIS     | #100,TEMP           | ;SELECTIVE SET TEMP      |
| 1851 | 010712 | 022767 | 177777 003232 | CMP     | #177677!100,TEMP    | ;COMPARE LITERAL TO TEMP |
| 1852 | 010720 | 001401 |               | BEQ     | .+4                 | ;TEST FOR EQUAL          |
| 1853 | 010722 | 000000 |               | HLT     |                     | ;BIS INSTRUCTION FAILED  |
| 1854 | 010724 | 000240 |               | SCOPE   |                     |                          |
| 1855 |        | 000200 |               | N=N+N   |                     |                          |
| 1856 |        | 177577 |               | M=M+M+1 |                     |                          |
| 1857 | 010726 | 012700 | 000200        | MOV     | #200,RO             | ;MOV 200 TO RO           |
| 1858 | 010732 | 042700 | 177577        | BIC     | #177577,RO          | ;SELECTIVELY CLEAR RO    |
| 1859 | 010736 | 022700 | 000200        | CMP     | #-177577-1&200,RO   | ;COMPARE LITERAL TO RO   |
| 1860 | 010742 | 001401 |               | BEQ     | .+4                 | ;TEST FOR EQUAL          |
| 1861 | 010744 | 000000 |               | HLT     |                     | ;BIC INSTRUCTION FAILED  |
| 1862 | 010746 | 000240 |               | SCOPE   |                     |                          |
| 1863 | 010750 | 012700 | 000200        | MOV     | #200,RO             | ;MOV 200 TO RO           |
| 1864 | 010754 | 052700 | 177577        | BIS     | #177577,RO          | ;SELECTIVE SET RO        |
| 1865 | 010760 | 022700 | 177777        | CMP     | #200!177577,RO      | ;COMPARE LITERAL TO RO   |
| 1866 | 010764 | 001401 |               | BEQ     | .+4                 | ;TEST FOR EQUAL          |
| 1867 | 010766 | 000000 |               | HLT     |                     | ;BIS INSTRUCTION FAILED  |
| 1868 | 010770 | 000240 |               | SCOPE   |                     |                          |
| 1869 | 010772 | 012700 | 177577        | MOV     | #177577,RO          | ;MOV 177577 TO RO        |
| 1870 | 010776 | 042700 | 000200        | BIC     | #200,RO             | ;SELECTIVELY CLEAR RO    |
| 1871 | 011002 | 022700 | 177577        | CMP     | #-200-1&177577,RO   | ;COMPARE LITERAL TO RO   |
| 1872 | 011006 | 001401 |               | BEQ     | .+4                 | ;TEST FOR EQUAL          |
| 1873 | 011010 | 000000 |               | HLT     |                     | ;BIC INSTRUCTION FAILED  |
| 1874 | 011012 | 000240 |               | SCOPE   |                     |                          |
| 1875 | 011014 | 012700 | 177577        | MOV     | #177577,RO          | ;MOV 177577 TO RO        |
| 1876 | 011020 | 052700 | 000200        | BIS     | #200,RO             | ;SELECTIVE SET RO        |
| 1877 | 011024 | 022700 | 177777        | CMP     | #177577!200,RO      | ;COMPARE LITERAL TO RO   |
| 1878 | 011030 | 001401 |               | BEQ     | .+4                 | ;TEST FOR EQUAL          |
| 1879 | 011032 | 000000 |               | HLT     |                     | ;BIS INSTRUCTION FAILED  |
| 1880 | 011034 | 000240 |               | SCOPE   |                     |                          |
| 1881 | 011036 | 012767 | 000200 003106 | MOV     | #200,TEMP           | ;MOV 200 TO TEMP         |
| 1882 | 011044 | 042767 | 177577 003100 | BIC     | #177577,TEMP        | ;SELECTIVELY CLEAR TEMP  |
| 1883 | 011052 | 022767 | 000200 003072 | CMP     | #-177577-1&200,TEMP | ;COMPARE LITERAL TO TEMP |
| 1884 | 011060 | 001401 |               | BEQ     | .+4                 | ;TEST FOR EQUAL          |



|      |        |        |               |         |                     |                          |
|------|--------|--------|---------------|---------|---------------------|--------------------------|
| 1885 | 011062 | 000000 |               | HLT     |                     | ;BIC INSTRUCTION FAILED  |
| 1886 | 011064 | 000240 |               | SCOPE   |                     |                          |
| 1887 | 011066 | 012767 | 000200 003056 | MOV     | #200,TEMP           | ;MOV 200 TO TEMP         |
| 1888 | 011074 | 052767 | 177577 003050 | BIS     | #177577,TEMP        | ;SELECTIVE SET TEMP      |
| 1889 | 011102 | 022767 | 177777 003042 | CMP     | #200!177577,TEMP    | ;COMPARE LITERAL TO TEMP |
| 1890 | 011110 | 001401 |               | BEQ     | +.4                 | ;TEST FOR EQUAL          |
| 1891 | 011112 | 000000 |               | HLT     |                     | ;BIS INSTRUCTION FAILED  |
| 1892 | 011114 | 000240 |               | SCOPE   |                     |                          |
| 1893 | 011116 | 012767 | 177577 003026 | MOV     | #177577,TEMP        | ;MOV 177577 TO TEMP      |
| 1894 | 011124 | 042767 | 000200 003020 | BIC     | #200,TEMP           | ;SELECTIVELY CLEAR TEMP  |
| 1895 | 011132 | 022767 | 177577 003012 | CMP     | #-200-1&177577,TEMP | ;COMPARE LITERAL TO TEMP |
| 1896 | 011140 | 001401 |               | BEQ     | +.4                 | ;TEST FOR EQUAL          |
| 1897 | 011142 | 000000 |               | HLT     |                     | ;BIC INSTRUCTION FAILED  |
| 1898 | 011144 | 000240 |               | SCOPE   |                     |                          |
| 1899 | 011146 | 012767 | 177577 002776 | MOV     | #177577,TEMP        | ;MOV 177577 TO TEMP      |
| 1900 | 011154 | 052767 | 000200 002770 | BIS     | #200,TEMP           | ;SELECTIVE SET TEMP      |
| 1901 | 011162 | 022767 | 177777 002762 | CMP     | #177577!200,TEMP    | ;COMPARE LITERAL TO TEMP |
| 1902 | 011170 | 001401 |               | BEQ     | +.4                 | ;TEST FOR EQUAL          |
| 1903 | 011172 | 000000 |               | HLT     |                     | ;BIS INSTRUCTION FAILED  |
| 1904 | 011174 | 000240 |               | SCOPE   |                     |                          |
| 1905 |        | 000400 |               | N=N+N   |                     |                          |
| 1906 |        | 177377 |               | M=M+M+1 |                     |                          |
| 1907 | 011176 | 012700 | 000400        | MOV     | #400,RO             | ;MOV 400 TO RO           |
| 1908 | 011202 | 042700 | 177377        | BIC     | #177377,RO          | ;SELECTIVELY CLEAR RO    |
| 1909 | 011206 | 022700 | 000400        | CMP     | #-177377-1&400,RO   | ;COMPARE LITERAL TO RO   |
| 1910 | 011212 | 001401 |               | BEQ     | +.4                 | ;TEST FOR EQUAL          |
| 1911 | 011214 | 000000 |               | HLT     |                     | ;BIC INSTRUCTION FAILED  |
| 1912 | 011216 | 000240 |               | SCOPE   |                     |                          |
| 1913 | 011220 | 012700 | 000400        | MOV     | #400,RO             | ;MOV 400 TO RO           |
| 1914 | 011224 | 052700 | 177377        | BIS     | #177377,RO          | ;SELECTIVE SET RO        |
| 1915 | 011230 | 022700 | 177777        | CMP     | #400!177377,RO      | ;COMPARE LITERAL TO RO   |
| 1916 | 011234 | 001401 |               | BEQ     | +.4                 | ;TEST FOR EQUAL          |
| 1917 | 011236 | 000000 |               | HLT     |                     | ;BIS INSTRUCTION FAILED  |
| 1918 | 011240 | 000240 |               | SCOPE   |                     |                          |
| 1919 | 011242 | 012700 | 177377        | MOV     | #177377,RO          | ;MOV 177377 TO RO        |
| 1920 | 011246 | 042700 | 000400        | BIC     | #400,RO             | ;SELECTIVELY CLEAR RO    |
| 1921 | 011252 | 022700 | 177377        | CMP     | #-400-1&177377,RO   | ;COMPARE LITERAL TO RO   |
| 1922 | 011256 | 001401 |               | BEQ     | +.4                 | ;TEST FOR EQUAL          |
| 1923 | 011260 | 000000 |               | HLT     |                     | ;BIC INSTRUCTION FAILED  |
| 1924 | 011262 | 000240 |               | SCOPE   |                     |                          |
| 1925 | 011264 | 012700 | 177377        | MOV     | #177377,RO          | ;MOV 177377 TO RO        |
| 1926 | 011270 | 052700 | 000400        | BIS     | #400,RO             | ;SELECTIVE SET RO        |
| 1927 | 011274 | 022700 | 177777        | CMP     | #177377!400,RO      | ;COMPARE LITERAL TO RO   |
| 1928 | 011300 | 001401 |               | BEQ     | +.4                 | ;TEST FOR EQUAL          |
| 1929 | 011302 | 000000 |               | HLT     |                     | ;BIS INSTRUCTION FAILED  |
| 1930 | 011304 | 000240 |               | SCOPE   |                     |                          |
| 1931 | 011306 | 012767 | 000400 002636 | MOV     | #400,TEMP           | ;MOV 400 TO TEMP         |
| 1932 | 011314 | 042767 | 177377 002630 | BIC     | #177377,TEMP        | ;SELECTIVELY CLEAR TEMP  |
| 1933 | 011322 | 022767 | 000400 002622 | CMP     | #-177377-1&400,TEMP | ;COMPARE LITERAL TO TEMP |
| 1934 | 011330 | 001401 |               | BEQ     | +.4                 | ;TEST FOR EQUAL          |
| 1935 | 011332 | 000000 |               | HLT     |                     | ;BIC INSTRUCTION FAILED  |
| 1936 | 011334 | 000240 |               | SCOPE   |                     |                          |
| 1937 | 011336 | 012767 | 000400 002606 | MOV     | #400,TEMP           | ;MOV 400 TO TEMP         |
| 1938 | 011344 | 052767 | 177377 002600 | BIS     | #177377,TEMP        | ;SELECTIVE SET TEMP      |
| 1939 | 011352 | 022767 | 177777 002572 | CMP     | #400!177377,TEMP    | ;COMPARE LITERAL TO TEMP |
| 1940 | 011360 | 001401 |               | BEQ     | +.4                 | ;TEST FOR EQUAL          |



|      |        |        |        |         |                      |                          |
|------|--------|--------|--------|---------|----------------------|--------------------------|
| 1941 | 011362 | 000000 |        | HLT     |                      | ;BIS INSTRUCTION FAILED  |
| 1942 | 011364 | 000240 |        | SCOPE   |                      |                          |
| 1943 | 011366 | 012767 | 177377 | MOV     | #177377,TEMP         | ;MOV 177377 TO TEMP      |
| 1944 | 011374 | 042767 | 000400 | BIC     | #400,TEMP            | ;SELECTIVELY CLEAR TEMP  |
| 1945 | 011402 | 022767 | 177377 | CMP     | #-400-1&177377,TEMP  | ;COMPARE LITERAL TO TEMP |
| 1946 | 011410 | 001401 |        | BEQ     | .+4                  | ;TEST FOR EQUAL          |
| 1947 | 011412 | 000000 |        | HLT     |                      | ;BIC INSTRUCTION FAILED  |
| 1948 | 011414 | 000240 |        | SCOPE   |                      |                          |
| 1949 | 011416 | 012767 | 177377 | MOV     | #177377,TEMP         | ;MOV 177377 TO TEMP      |
| 1950 | 011424 | 052767 | 000400 | BIS     | #400,TEMP            | ;SELECTIVE SET TEMP      |
| 1951 | 011432 | 022767 | 177777 | CMP     | #177377!400,TEMP     | ;COMPARE LITERAL TO TEMP |
| 1952 | 011440 | 001401 |        | BEQ     | .+4                  | ;TEST FOR EQUAL          |
| 1953 | 011442 | 000000 |        | HLT     |                      | ;BIS INSTRUCTION FAILED  |
| 1954 | 011444 | 000240 |        | SCOPE   |                      |                          |
| 1955 |        | 001000 |        | N=N+N   |                      |                          |
| 1956 |        | 176777 |        | M=M+M+1 |                      |                          |
| 1957 | 011446 | 012700 | 001000 | MOV     | #1000,RO             | ;MOV 1000 TO RO          |
| 1958 | 011452 | 042700 | 176777 | BIC     | #176777,RO           | ;SELECTIVELY CLEAR RO    |
| 1959 | 011456 | 022700 | 001000 | CMP     | #-176777-1&1000,RO   | ;COMPARE LITERAL TO RO   |
| 1960 | 011462 | 001401 |        | BEQ     | .+4                  | ;TEST FOR EQUAL          |
| 1961 | 011464 | 000000 |        | HLT     |                      | ;BIC INSTRUCTION FAILED  |
| 1962 | 011466 | 000240 |        | SCOPE   |                      |                          |
| 1963 | 011470 | 012700 | 001000 | MOV     | #1000,RO             | ;MOV 1000 TO RO          |
| 1964 | 011474 | 052700 | 176777 | BIS     | #176777,RO           | ;SELECTIVE SET RO        |
| 1965 | 011500 | 022700 | 177777 | CMP     | #1000!176777,RO      | ;COMPARE LITERAL TO RO   |
| 1966 | 011504 | 001401 |        | BEQ     | .+4                  | ;TEST FOR EQUAL          |
| 1967 | 011506 | 000000 |        | HLT     |                      | ;BIS INSTRUCTION FAILED  |
| 1968 | 011510 | 000240 |        | SCOPE   |                      |                          |
| 1969 | 011512 | 012700 | 176777 | MOV     | #176777,RO           | ;MOV 176777 TO RO        |
| 1970 | 011516 | 042700 | 001000 | BIC     | #1000,RO             | ;SELECTIVELY CLEAR RO    |
| 1971 | 011522 | 022700 | 176777 | CMP     | #-1000-1&176777,RO   | ;COMPARE LITERAL TO RO   |
| 1972 | 011526 | 001401 |        | BEQ     | .+4                  | ;TEST FOR EQUAL          |
| 1973 | 011530 | 000000 |        | HLT     |                      | ;BIC INSTRUCTION FAILED  |
| 1974 | 011532 | 000240 |        | SCOPE   |                      |                          |
| 1975 | 011534 | 012700 | 176777 | MOV     | #176777,RO           | ;MOV 176777 TO RO        |
| 1976 | 011540 | 052700 | 001000 | BIS     | #1000,RO             | ;SELECTIVE SET RO        |
| 1977 | 011544 | 022700 | 177777 | CMP     | #176777!1000,RO      | ;COMPARE LITERAL TO RO   |
| 1978 | 011550 | 001401 |        | BEQ     | .+4                  | ;TEST FOR EQUAL          |
| 1979 | 011552 | 000000 |        | HLT     |                      | ;BIS INSTRUCTION FAILED  |
| 1980 | 011554 | 000240 |        | SCOPE   |                      |                          |
| 1981 | 011556 | 012767 | 001000 | MOV     | #1000,TEMP           | ;MOV 1000 TO TEMP        |
| 1982 | 011564 | 042767 | 176777 | BIC     | #176777,TEMP         | ;SELECTIVELY CLEAR TEMP  |
| 1983 | 011572 | 022767 | 001000 | CMP     | #-176777-1&1000,TEMP | ;COMPARE LITERAL TO TEMP |
| 1984 | 011600 | 001401 |        | BEQ     | .+4                  | ;TEST FOR EQUAL          |
| 1985 | 011602 | 000000 |        | HLT     |                      | ;BIC INSTRUCTION FAILED  |
| 1986 | 011604 | 000240 |        | SCOPE   |                      |                          |
| 1987 | 011606 | 012767 | 001000 | MOV     | #1000,TEMP           | ;MOV 1000 TO TEMP        |
| 1988 | 011614 | 052767 | 176777 | BIS     | #176777,TEMP         | ;SELECTIVE SET TEMP      |
| 1989 | 011622 | 022767 | 177777 | CMP     | #1000!176777,TEMP    | ;COMPARE LITERAL TO TEMP |
| 1990 | 011630 | 001401 |        | BEQ     | .+4                  | ;TEST FOR EQUAL          |
| 1991 | 011632 | 000000 |        | HLT     |                      | ;BIS INSTRUCTION FAILED  |
| 1992 | 011634 | 000240 |        | SCOPE   |                      |                          |
| 1993 | 011636 | 012767 | 176777 | MOV     | #176777,TEMP         | ;MOV 176777 TO TEMP      |
| 1994 | 011644 | 042767 | 001000 | BIC     | #1000,TEMP           | ;SELECTIVELY CLEAR TEMP  |
| 1995 | 011652 | 022767 | 176777 | CMP     | #-1000-1&176777,TEMP | ;COMPARE LITERAL TO TEMP |
| 1996 | 011660 | 001401 |        | BEQ     | .+4                  | ;TEST FOR EQUAL          |



|      |        |        |        |        |         |                      |                          |
|------|--------|--------|--------|--------|---------|----------------------|--------------------------|
| 1997 | 011662 | 000000 |        |        | HLT     |                      | ;BIC INSTRUCTION FAILED  |
| 1998 | 011664 | 000240 |        |        | SCOPE   |                      |                          |
| 1999 | 011666 | 012767 | 176777 | 002256 | MOV     | #176777,TEMP         | ;MOV 176777 TO TEMP      |
| 2000 | 011674 | 052767 | 001000 | 002250 | BIS     | #1000,TEMP           | ;SELECTIVE SET TEMP      |
| 2001 | 011702 | 022767 | 177777 | 002242 | CMP     | #176777!1000,TEMP    | ;COMPARE LITERAL TO TEMP |
| 2002 | 011710 | 001401 |        |        | BEQ     | +.4                  | ;TEST FOR EQUAL          |
| 2003 | 011712 | 000000 |        |        | HLT     |                      | ;BIS INSTRUCTION FAILED  |
| 2004 | 011714 | 000240 |        |        | SCOPE   |                      |                          |
| 2005 |        | 002000 |        |        | N=N+N   |                      |                          |
| 2006 |        | 175777 |        |        | M=M+M+1 |                      |                          |
| 2007 | 011716 | 012700 | 002000 |        | MOV     | #2000,RO             | ;MOV 2000 TO RO          |
| 2008 | 011722 | 042700 | 175777 |        | BIC     | #175777,RO           | ;SELECTIVELY CLEAR RO    |
| 2009 | 011726 | 022700 | 002000 |        | CMP     | #-175777-1&2000,RO   | ;COMPARE LITERAL TO RO   |
| 2010 | 011732 | 001401 |        |        | BEQ     | +.4                  | ;TEST FOR EQUAL          |
| 2011 | 011734 | 000000 |        |        | HLT     |                      | ;BIC INSTRUCTION FAILED  |
| 2012 | 011736 | 000240 |        |        | SCOPE   |                      |                          |
| 2013 | 011740 | 012700 | 002000 |        | MOV     | #2000,RO             | ;MOV 2000 TO RO          |
| 2014 | 011744 | 052700 | 175777 |        | BIS     | #175777,RO           | ;SELECTIVE SET RO        |
| 2015 | 011750 | 022700 | 177777 |        | CMP     | #2000!175777,RO      | ;COMPARE LITERAL TO RO   |
| 2016 | 011754 | 001401 |        |        | BEQ     | +.4                  | ;TEST FOR EQUAL          |
| 2017 | 011756 | 000000 |        |        | HLT     |                      | ;BIS INSTRUCTION FAILED  |
| 2018 | 011760 | 000240 |        |        | SCOPE   |                      |                          |
| 2019 | 011762 | 012700 | 175777 |        | MOV     | #175777,RO           | ;MOV 175777 TO RO        |
| 2020 | 011766 | 042700 | 002000 |        | BIC     | #2000,RO             | ;SELECTIVELY CLEAR RO    |
| 2021 | 011772 | 022700 | 175777 |        | CMP     | #-2000-1&175777,RO   | ;COMPARE LITERAL TO RO   |
| 2022 | 011776 | 001401 |        |        | BEQ     | +.4                  | ;TEST FOR EQUAL          |
| 2023 | 012000 | 000000 |        |        | HLT     |                      | ;BIC INSTRUCTION FAILED  |
| 2024 | 012002 | 000240 |        |        | SCOPE   |                      |                          |
| 2025 | 012004 | 012700 | 175777 |        | MOV     | #175777,RO           | ;MOV 175777 TO RO        |
| 2026 | 012010 | 052700 | 002000 |        | BIS     | #2000,RO             | ;SELECTIVE SET RO        |
| 2027 | 012014 | 022700 | 177777 |        | CMP     | #175777!2000,RO      | ;COMPARE LITERAL TO RO   |
| 2028 | 012020 | 001401 |        |        | BEQ     | +.4                  | ;TEST FOR EQUAL          |
| 2029 | 012022 | 000000 |        |        | HLT     |                      | ;BIS INSTRUCTION FAILED  |
| 2030 | 012024 | 000240 |        |        | SCOPE   |                      |                          |
| 2031 | 012026 | 012767 | 002000 | 002116 | MOV     | #2000,TEMP           | ;MOV 2000 TO TEMP        |
| 2032 | 012034 | 042767 | 175777 | 002110 | BIC     | #175777,TEMP         | ;SELECTIVELY CLEAR TEMP  |
| 2033 | 012042 | 022767 | 002000 | 002102 | CMP     | #-175777-1&2000,TEMP | ;COMPARE LITERAL TO TEMP |
| 2034 | 012050 | 001401 |        |        | BEQ     | +.4                  | ;TEST FOR EQUAL          |
| 2035 | 012052 | 000000 |        |        | HLT     |                      | ;BIC INSTRUCTION FAILED  |
| 2036 | 012054 | 000240 |        |        | SCOPE   |                      |                          |
| 2037 | 012056 | 012767 | 002000 | 002066 | MOV     | #2000,TEMP           | ;MOV 2000 TO TEMP        |
| 2038 | 012064 | 052767 | 175777 | 002060 | BIS     | #175777,TEMP         | ;SELECTIVE SET TEMP      |
| 2039 | 012072 | 022767 | 177777 | 002052 | CMP     | #2000!175777,TEMP    | ;COMPARE LITERAL TO TEMP |
| 2040 | 012100 | 001401 |        |        | BEQ     | +.4                  | ;TEST FOR EQUAL          |
| 2041 | 012102 | 000000 |        |        | HLT     |                      | ;BIS INSTRUCTION FAILED  |
| 2042 | 012104 | 000240 |        |        | SCOPE   |                      |                          |
| 2043 | 012106 | 012767 | 175777 | 002036 | MOV     | #175777,TEMP         | ;MOV 175777 TO TEMP      |
| 2044 | 012114 | 042767 | 002000 | 002030 | BIC     | #2000,TEMP           | ;SELECTIVELY CLEAR TEMP  |
| 2045 | 012122 | 022767 | 175777 | 002022 | CMP     | #-2000-1&175777,TEMP | ;COMPARE LITERAL TO TEMP |
| 2046 | 012130 | 001401 |        |        | BEQ     | +.4                  | ;TEST FOR EQUAL          |
| 2047 | 012132 | 000000 |        |        | HLT     |                      | ;BIC INSTRUCTION FAILED  |
| 2048 | 012134 | 000240 |        |        | SCOPE   |                      |                          |
| 2049 | 012136 | 012767 | 175777 | 002006 | MOV     | #175777,TEMP         | ;MOV 175777 TO TEMP      |
| 2050 | 012144 | 052767 | 002000 | 002000 | BIS     | #2000,TEMP           | ;SELECTIVE SET TEMP      |
| 2051 | 012152 | 022767 | 177777 | 001772 | CMP     | #175777!2000,TEMP    | ;COMPARE LITERAL TO TEMP |
| 2052 | 012160 | 001401 |        |        | BEQ     | +.4                  | ;TEST FOR EQUAL          |

| Address | Op-Code | Instruction          | Comment                                           |
|---------|---------|----------------------|---------------------------------------------------|
| 2053    | 012162  | 000000               | HLT                                               |
| 2054    | 012164  | 000240               | SCOPE                                             |
| 2055    |         | 004000               | N=N+N                                             |
| 2056    |         | 173777               | M=M+M+1                                           |
| 2057    | 012166  | 012700 004000        | MOV #4000,RO ;MOV 4000 TO RO                      |
| 2058    | 012172  | 042700 173777        | BIC #173777,RO ;SELECTIVELY CLEAR RO              |
| 2059    | 012176  | 022700 004000        | CMP #-173777-1&4000,RO ;COMPARE LITERAL TO RO     |
| 2060    | 012202  | 001401               | BEQ .+4 ;TEST FOR EQUAL                           |
| 2061    | 012204  | 000000               | HLT                                               |
| 2062    | 012206  | 000240               | SCOPE                                             |
| 2063    | 012210  | 012700 004000        | MOV #4000,RO ;MOV 4000 TO RO                      |
| 2064    | 012214  | 052700 173777        | BIS #173777,RO ;SELECTIVE SET RO                  |
| 2065    | 012220  | 022700 177777        | CMP #4000!173777,RO ;COMPARE LITERAL TO RO        |
| 2066    | 012224  | 001401               | BEQ .+4 ;TEST FOR EQUAL                           |
| 2067    | 012226  | 000000               | HLT                                               |
| 2068    | 012230  | 000240               | SCOPE                                             |
| 2069    | 012232  | 012700 173777        | MOV #173777,RO ;MOV 173777 TO RO                  |
| 2070    | 012236  | 042700 004000        | BIC #4000,RO ;SELECTIVELY CLEAR RO                |
| 2071    | 012242  | 022700 173777        | CMP #-4000-1&173777,RO ;COMPARE LITERAL TO RO     |
| 2072    | 012246  | 001401               | BEQ .+4 ;TEST FOR EQUAL                           |
| 2073    | 012250  | 000000               | HLT                                               |
| 2074    | 012252  | 000240               | SCOPE                                             |
| 2075    | 012254  | 012700 173777        | MOV #173777,RO ;MOV 173777 TO RO                  |
| 2076    | 012260  | 052700 004000        | BIS #4000,RO ;SELECTIVE SET RO                    |
| 2077    | 012264  | 022700 177777        | CMP #173777!4000,RO ;COMPARE LITERAL TO RO        |
| 2078    | 012270  | 001401               | BEQ .+4 ;TEST FOR EQUAL                           |
| 2079    | 012272  | 000000               | HLT                                               |
| 2080    | 012274  | 000240               | SCOPE                                             |
| 2081    | 012276  | 012767 004000 001646 | MOV #4000,TEMP ;MOV 4000 TO TEMP                  |
| 2082    | 012304  | 042767 173777 001640 | BIC #173777,TEMP ;SELECTIVELY CLEAR TEMP          |
| 2083    | 012312  | 022767 004000 001632 | CMP #-173777-1&4000,TEMP ;COMPARE LITERAL TO TEMP |
| 2084    | 012320  | 001401               | BEQ .+4 ;TEST FOR EQUAL                           |
| 2085    | 012322  | 000000               | HLT                                               |
| 2086    | 012324  | 000240               | SCOPE                                             |
| 2087    | 012326  | 012767 004000 001616 | MOV #4000,TEMP ;MOV 4000 TO TEMP                  |
| 2088    | 012334  | 052767 173777 001610 | BIS #173777,TEMP ;SELECTIVE SET TEMP              |
| 2089    | 012342  | 022767 177777 001602 | CMP #4000!173777,TEMP ;COMPARE LITERAL TO TEMP    |
| 2090    | 012350  | 001401               | BEQ .+4 ;TEST FOR EQUAL                           |
| 2091    | 012352  | 000000               | HLT                                               |
| 2092    | 012354  | 000240               | SCOPE                                             |
| 2093    | 012356  | 012767 173777 001566 | MOV #173777,TEMP ;MOV 173777 TO TEMP              |
| 2094    | 012364  | 042767 004000 001560 | BIC #4000,TEMP ;SELECTIVELY CLEAR TEMP            |
| 2095    | 012372  | 022767 173777 001552 | CMP #-4000-1&173777,TEMP ;COMPARE LITERAL TO TEMP |
| 2096    | 012400  | 001401               | BEQ .+4 ;TEST FOR EQUAL                           |
| 2097    | 012402  | 000000               | HLT                                               |
| 2098    | 012404  | 000240               | SCOPE                                             |
| 2099    | 012406  | 012767 173777 001536 | MOV #173777,TEMP ;MOV 173777 TO TEMP              |
| 2100    | 012414  | 052767 004000 001530 | BIS #4000,TEMP ;SELECTIVE SET TEMP                |
| 2101    | 012422  | 022767 177777 001522 | CMP #173777!4000,TEMP ;COMPARE LITERAL TO TEMP    |
| 2102    | 012430  | 001401               | BEQ .+4 ;TEST FOR EQUAL                           |
| 2103    | 012432  | 000000               | HLT                                               |
| 2104    | 012434  | 000240               | SCOPE                                             |
| 2105    |         | 010000               | N=N+N                                             |
| 2106    |         | 167777               | M=M+M+1                                           |
| 2107    | 012436  | 012700 010000        | MOV #10000,RO ;MOV 10000 TO RO                    |
| 2108    | 012442  | 042700 167777        | BIC #167777,RO ;SELECTIVELY CLEAR RO              |



|      |        |        |               |         |                       |                          |
|------|--------|--------|---------------|---------|-----------------------|--------------------------|
| 2109 | 012446 | 022700 | 010000        | CMP     | #-167777-1&10000,RO   | ;COMPARE LITERAL TO RO   |
| 2110 | 012452 | 001401 |               | BEQ     | +.4                   | ;TEST FOR EQUAL          |
| 2111 | 012454 | 000000 |               | HLT     |                       | ;BIC INSTRUCTION FAILED  |
| 2112 | 012456 | 000240 |               | SCOPE   |                       |                          |
| 2113 | 012460 | 012700 | 010000        | MOV     | #10000,RO             | ;MOV 10000 TO RO         |
| 2114 | 012464 | 052700 | 167777        | BIS     | #167777,RO            | ;SELECTIVE SET RO        |
| 2115 | 012470 | 022700 | 177777        | CMP     | #10000!167777,RO      | ;COMPARE LITERAL TO RO   |
| 2116 | 012474 | 001401 |               | BEQ     | +.4                   | ;TEST FOR EQUAL          |
| 2117 | 012476 | 000000 |               | HLT     |                       | ;BIC INSTRUCTION FAILED  |
| 2118 | 012500 | 000240 |               | SCOPE   |                       |                          |
| 2119 | 012502 | 012700 | 167777        | MOV     | #167777,RO            | ;MOV 167777 TO RO        |
| 2120 | 012506 | 042700 | 010000        | BIC     | #10000,RO             | ;SELECTIVELY CLEAR RO    |
| 2121 | 012512 | 022700 | 167777        | CMP     | #-10000-1&167777,RO   | ;COMPARE LITERAL TO RO   |
| 2122 | 012516 | 001401 |               | BEQ     | +.4                   | ;TEST FOR EQUAL          |
| 2123 | 012520 | 000000 |               | HLT     |                       | ;BIC INSTRUCTION FAILED  |
| 2124 | 012522 | 000240 |               | SCOPE   |                       |                          |
| 2125 | 012524 | 012700 | 167777        | MOV     | #167777,RO            | ;MOV 167777 TO RO        |
| 2126 | 012530 | 052700 | 010000        | BIS     | #10000,RO             | ;SELECTIVE SET RO        |
| 2127 | 012534 | 022700 | 177777        | CMP     | #167777!10000,RO      | ;COMPARE LITERAL TO RO   |
| 2128 | 012540 | 001401 |               | BEQ     | +.4                   | ;TEST FOR EQUAL          |
| 2129 | 012542 | 000000 |               | HLT     |                       | ;BIC INSTRUCTION FAILED  |
| 2130 | 012544 | 000240 |               | SCOPE   |                       |                          |
| 2131 | 012546 | 012767 | 010000 001376 | MOV     | #10000,TEMP           | ;MOV 10000 TO TEMP       |
| 2132 | 012554 | 042767 | 167777 001370 | BIC     | #167777,TEMP          | ;SELECTIVELY CLEAR TEMP  |
| 2133 | 012562 | 022767 | 010000 001362 | CMP     | #-167777-1&10000,TEMP | ;COMPARE LITERAL TO TEMP |
| 2134 | 012570 | 001401 |               | BEQ     | +.4                   | ;TEST FOR EQUAL          |
| 2135 | 012572 | 000000 |               | HLT     |                       | ;BIC INSTRUCTION FAILED  |
| 2136 | 012574 | 000240 |               | SCOPE   |                       |                          |
| 2137 | 012576 | 012767 | 010000 001346 | MOV     | #10000,TEMP           | ;MOV 10000 TO TEMP       |
| 2138 | 012604 | 052767 | 167777 001340 | BIS     | #167777,TEMP          | ;SELECTIVE SET TEMP      |
| 2139 | 012612 | 022767 | 177777 001332 | CMP     | #10000!167777,TEMP    | ;COMPARE LITERAL TO TEMP |
| 2140 | 012620 | 001401 |               | BEQ     | +.4                   | ;TEST FOR EQUAL          |
| 2141 | 012622 | 000000 |               | HLT     |                       | ;BIC INSTRUCTION FAILED  |
| 2142 | 012624 | 000240 |               | SCOPE   |                       |                          |
| 2143 | 012626 | 012767 | 167777 001316 | MOV     | #167777,TEMP          | ;MOV 167777 TO TEMP      |
| 2144 | 012634 | 042767 | 010000 001310 | BIC     | #10000,TEMP           | ;SELECTIVELY CLEAR TEMP  |
| 2145 | 012642 | 022767 | 167777 001302 | CMP     | #-10000-1&167777,TEMP | ;COMPARE LITERAL TO TEMP |
| 2146 | 012650 | 001401 |               | BEQ     | +.4                   | ;TEST FOR EQUAL          |
| 2147 | 012652 | 000000 |               | HLT     |                       | ;BIC INSTRUCTION FAILED  |
| 2148 | 012654 | 000240 |               | SCOPE   |                       |                          |
| 2149 | 012656 | 012767 | 167777 001266 | MOV     | #167777,TEMP          | ;MOV 167777 TO TEMP      |
| 2150 | 012664 | 052767 | 010000 001260 | BIS     | #10000,TEMP           | ;SELECTIVE SET TEMP      |
| 2151 | 012672 | 022767 | 177777 001252 | CMP     | #167777!10000,TEMP    | ;COMPARE LITERAL TO TEMP |
| 2152 | 012700 | 001401 |               | BEQ     | +.4                   | ;TEST FOR EQUAL          |
| 2153 | 012702 | 000000 |               | HLT     |                       | ;BIC INSTRUCTION FAILED  |
| 2154 | 012704 | 000240 |               | SCOPE   |                       |                          |
| 2155 |        | 020000 |               | N=N+N   |                       |                          |
| 2156 |        | 157777 |               | M=M+M+1 |                       |                          |
| 2157 | 012706 | 012700 | 020000        | MOV     | #20000,RO             | ;MOV 20000 TO RO         |
| 2158 | 012712 | 042700 | 157777        | BIC     | #157777,RO            | ;SELECTIVELY CLEAR RO    |
| 2159 | 012716 | 022700 | 020000        | CMP     | #-157777-1&20000,RO   | ;COMPARE LITERAL TO RO   |
| 2160 | 012722 | 001401 |               | BEQ     | +.4                   | ;TEST FOR EQUAL          |
| 2161 | 012724 | 000000 |               | HLT     |                       | ;BIC INSTRUCTION FAILED  |
| 2162 | 012726 | 000240 |               | SCOPE   |                       |                          |
| 2163 | 012730 | 012700 | 020000        | MOV     | #20000,RO             | ;MOV 20000 TO RO         |
| 2164 | 012734 | 052700 | 157777        | BIS     | #157777,RO            | ;SELECTIVE SET RO        |

|      |        |        |        |        |  |         |                       |  |                          |
|------|--------|--------|--------|--------|--|---------|-----------------------|--|--------------------------|
| 2165 | 012740 | 022700 | 177777 |        |  | CMP     | #20000!157777,RO      |  | ;COMPARE LITERAL TO RO   |
| 2166 | 012744 | 001401 |        |        |  | BEQ     | +.4                   |  | ;TEST FOR EQUAL          |
| 2167 | 012746 | 000000 |        |        |  | HLT     |                       |  | ;BIS INSTRUCTION FAILED  |
| 2168 | 012750 | 000240 |        |        |  | SCOPE   |                       |  |                          |
| 2169 | 012752 | 012700 | 157777 |        |  | MOV     | #157777,RO            |  | ;MOV 157777 TO RO        |
| 2170 | 012756 | 042700 | 020000 |        |  | BIC     | #20000,RO             |  | ;SELECTIVELY CLEAR RO    |
| 2171 | 012762 | 022700 | 157777 |        |  | CMP     | #-20000-1&157777,RO   |  | ;COMPARE LITERAL TO RO   |
| 2172 | 012766 | 001401 |        |        |  | BEQ     | +.4                   |  | ;TEST FOR EQUAL          |
| 2173 | 012770 | 000000 |        |        |  | HLT     |                       |  | ;BIC INSTRUCTION FAILED  |
| 2174 | 012772 | 000240 |        |        |  | SCOPE   |                       |  |                          |
| 2175 | 012774 | 012700 | 157777 |        |  | MOV     | #157777,RO            |  | ;MOV 157777 TO RO        |
| 2176 | 013000 | 052700 | 020000 |        |  | BIS     | #20000,RO             |  | ;SELECTIVE SET RO        |
| 2177 | 013004 | 022700 | 177777 |        |  | CMP     | #157777!20000,RO      |  | ;COMPARE LITERAL TO RO   |
| 2178 | 013010 | 001401 |        |        |  | BEQ     | +.4                   |  | ;TEST FOR EQUAL          |
| 2179 | 013012 | 000000 |        |        |  | HLT     |                       |  | ;BIS INSTRUCTION FAILED  |
| 2180 | 013014 | 000240 |        |        |  | SCOPE   |                       |  |                          |
| 2181 | 013016 | 012767 | 020000 | 001126 |  | MOV     | #20000,TEMP           |  | ;MOV 20000 TO TEMP       |
| 2182 | 013024 | 042767 | 157777 | 001120 |  | BIC     | #157777,TEMP          |  | ;SELECTIVELY CLEAR TEMP  |
| 2183 | 013032 | 022767 | 020000 | 001112 |  | CMP     | #-157777-1&20000,TEMP |  | ;COMPARE LITERAL TO TEMP |
| 2184 | 013040 | 001401 |        |        |  | BEQ     | +.4                   |  | ;TEST FOR EQUAL          |
| 2185 | 013042 | 000000 |        |        |  | HLT     |                       |  | ;BIC INSTRUCTION FAILED  |
| 2186 | 013044 | 000240 |        |        |  | SCOPE   |                       |  |                          |
| 2187 | 013046 | 012767 | 020000 | 001076 |  | MOV     | #20000,TEMP           |  | ;MOV 20000 TO TEMP       |
| 2188 | 013054 | 052767 | 157777 | 001070 |  | BIS     | #157777,TEMP          |  | ;SELECTIVE SET TEMP      |
| 2189 | 013062 | 022767 | 177777 | 001062 |  | CMP     | #20000!157777,TEMP    |  | ;COMPARE LITERAL TO TEMP |
| 2190 | 013070 | 001401 |        |        |  | BEQ     | +.4                   |  | ;TEST FOR EQUAL          |
| 2191 | 013072 | 000000 |        |        |  | HLT     |                       |  | ;BIS INSTRUCTION FAILED  |
| 2192 | 013074 | 000240 |        |        |  | SCOPE   |                       |  |                          |
| 2193 | 013076 | 012767 | 157777 | 001046 |  | MOV     | #157777,TEMP          |  | ;MOV 157777 TO TEMP      |
| 2194 | 013104 | 042767 | 020000 | 001040 |  | BIC     | #20000,TEMP           |  | ;SELECTIVELY CLEAR TEMP  |
| 2195 | 013112 | 022767 | 157777 | 001032 |  | CMP     | #-20000-1&157777,TEMP |  | ;COMPARE LITERAL TO TEMP |
| 2196 | 013120 | 001401 |        |        |  | BEQ     | +.4                   |  | ;TEST FOR EQUAL          |
| 2197 | 013122 | 000000 |        |        |  | HLT     |                       |  | ;BIC INSTRUCTION FAILED  |
| 2198 | 013124 | 000240 |        |        |  | SCOPE   |                       |  |                          |
| 2199 | 013126 | 012767 | 157777 | 001016 |  | MOV     | #157777,TEMP          |  | ;MOV 157777 TO TEMP      |
| 2200 | 013134 | 052767 | 020000 | 001010 |  | BIS     | #20000,TEMP           |  | ;SELECTIVE SET TEMP      |
| 2201 | 013142 | 022767 | 177777 | 001002 |  | CMP     | #157777!20000,TEMP    |  | ;COMPARE LITERAL TO TEMP |
| 2202 | 013150 | 001401 |        |        |  | BEQ     | +.4                   |  | ;TEST FOR EQUAL          |
| 2203 | 013152 | 000000 |        |        |  | HLT     |                       |  | ;BIS INSTRUCTION FAILED  |
| 2204 | 013154 | 000240 |        |        |  | SCOPE   |                       |  |                          |
| 2205 |        | 040000 |        |        |  | N=N+N   |                       |  |                          |
| 2206 |        | 137777 |        |        |  | M=M+M+1 |                       |  |                          |
| 2207 | 013156 | 012700 | 040000 |        |  | MOV     | #40000,RO             |  | ;MOV 40000 TO RO         |
| 2208 | 013162 | 042700 | 137777 |        |  | BIC     | #137777,RO            |  | ;SELECTIVELY CLEAR RO    |
| 2209 | 013166 | 022700 | 040000 |        |  | CMP     | #-137777-1&40000,RO   |  | ;COMPARE LITERAL TO RO   |
| 2210 | 013172 | 001401 |        |        |  | BEQ     | +.4                   |  | ;TEST FOR EQUAL          |
| 2211 | 013174 | 000000 |        |        |  | HLT     |                       |  | ;BIC INSTRUCTION FAILED  |
| 2212 | 013176 | 000240 |        |        |  | SCOPE   |                       |  |                          |
| 2213 | 013200 | 012700 | 040000 |        |  | MOV     | #40000,RO             |  | ;MOV 40000 TO RO         |
| 2214 | 013204 | 052700 | 137777 |        |  | BIS     | #137777,RO            |  | ;SELECTIVE SET RO        |
| 2215 | 013210 | 022700 | 177777 |        |  | CMP     | #40000!137777,RO      |  | ;COMPARE LITERAL TO RO   |
| 2216 | 013214 | 001401 |        |        |  | BEQ     | +.4                   |  | ;TEST FOR EQUAL          |
| 2217 | 013216 | 000000 |        |        |  | HLT     |                       |  | ;BIS INSTRUCTION FAILED  |
| 2218 | 013220 | 000240 |        |        |  | SCOPE   |                       |  |                          |
| 2219 | 013222 | 012700 | 137777 |        |  | MOV     | #137777,RO            |  | ;MOV 137777 TO RO        |
| 2220 | 013226 | 042700 | 040000 |        |  | BIC     | #40000,RO             |  | ;SELECTIVELY CLEAR RO    |



|      |        |        |               |         |                       |                          |
|------|--------|--------|---------------|---------|-----------------------|--------------------------|
| 2221 | 013232 | 022700 | 137777        | CMP     | #-40000-1&137777,RO   | ;COMPARE LITERAL TO RO   |
| 2222 | 013236 | 001401 |               | BEQ     | .+4                   | ;TEST FOR EQUAL          |
| 2223 | 013240 | 000000 |               | HLT     |                       | ;BIC INSTRUCTION FAILED  |
| 2224 | 013242 | 000240 |               | SCOPE   |                       |                          |
| 2225 | 013244 | 012700 | 137777        | MOV     | #137777,RO            | ;MOV 137777 TO RO        |
| 2226 | 013250 | 052700 | 040000        | BIS     | #40000,RO             | ;SELECTIVE SET RO        |
| 2227 | 013254 | 022700 | 177777        | CMP     | #137777!40000,RO      | ;COMPARE LITERAL TO RO   |
| 2228 | 013260 | 001401 |               | BEQ     | .+4                   | ;TEST FOR EQUAL          |
| 2229 | 013262 | 000000 |               | HLT     |                       | ;BIS INSTRUCTION FAILED  |
| 2230 | 013264 | 000240 |               | SCOPE   |                       |                          |
| 2231 | 013266 | 012767 | 040000 000656 | MOV     | #40000,TEMP           | ;MOV 40000 TO TEMP       |
| 2232 | 013274 | 042767 | 137777 000650 | BIC     | #137777,TEMP          | ;SELECTIVELY CLEAR TEMP  |
| 2233 | 013302 | 022767 | 040000 000642 | CMP     | #-137777-1&40000,TEMP | ;COMPARE LITERAL TO TEMP |
| 2234 | 013310 | 001401 |               | BEQ     | .+4                   | ;TEST FOR EQUAL          |
| 2235 | 013312 | 000000 |               | HLT     |                       | ;BIC INSTRUCTION FAILED  |
| 2236 | 013314 | 000240 |               | SCOPE   |                       |                          |
| 2237 | 013316 | 012767 | 040000 000626 | MOV     | #40000,TEMP           | ;MOV 40000 TO TEMP       |
| 2238 | 013324 | 052767 | 137777 000620 | BIS     | #137777,TEMP          | ;SELECTIVE SET TEMP      |
| 2239 | 013332 | 022767 | 177777 000612 | CMP     | #40000!137777,TEMP    | ;COMPARE LITERAL TO TEMP |
| 2240 | 013340 | 001401 |               | BEQ     | .+4                   | ;TEST FOR EQUAL          |
| 2241 | 013342 | 000000 |               | HLT     |                       | ;BIS INSTRUCTION FAILED  |
| 2242 | 013344 | 000240 |               | SCOPE   |                       |                          |
| 2243 | 013346 | 012767 | 137777 000576 | MOV     | #137777,TEMP          | ;MOV 137777 TO TEMP      |
| 2244 | 013354 | 042767 | 040000 000570 | BIC     | #40000,TEMP           | ;SELECTIVELY CLEAR TEMP  |
| 2245 | 013362 | 022767 | 137777 000562 | CMP     | #-40000-1&137777,TEMP | ;COMPARE LITERAL TO TEMP |
| 2246 | 013370 | 001401 |               | BEQ     | .+4                   | ;TEST FOR EQUAL          |
| 2247 | 013372 | 000000 |               | HLT     |                       | ;BIC INSTRUCTION FAILED  |
| 2248 | 013374 | 000240 |               | SCOPE   |                       |                          |
| 2249 | 013376 | 012767 | 137777 000546 | MOV     | #137777,TEMP          | ;MOV 137777 TO TEMP      |
| 2250 | 013404 | 052767 | 040000 000540 | BIS     | #40000,TEMP           | ;SELECTIVE SET TEMP      |
| 2251 | 013412 | 022767 | 177777 000532 | CMP     | #137777!40000,TEMP    | ;COMPARE LITERAL TO TEMP |
| 2252 | 013420 | 001401 |               | BEQ     | .+4                   | ;TEST FOR EQUAL          |
| 2253 | 013422 | 000000 |               | HLT     |                       | ;BIS INSTRUCTION FAILED  |
| 2254 | 013424 | 000240 |               | SCOPE   |                       |                          |
| 2255 |        | 100000 |               | N=N+N   |                       |                          |
| 2256 |        | 077777 |               | M=M+M+1 |                       |                          |
| 2257 | 013426 | 012700 | 100000        | MOV     | #100000,RO            | ;MOV 100000 TO RO        |
| 2258 | 013432 | 042700 | 077777        | BIC     | #77777,RO             | ;SELECTIVELY CLEAR RO    |
| 2259 | 013436 | 022700 | 100000        | CMP     | #-77777-1&100000,RO   | ;COMPARE LITERAL TO RO   |
| 2260 | 013442 | 001401 |               | BEQ     | .+4                   | ;TEST FOR EQUAL          |
| 2261 | 013444 | 000000 |               | HLT     |                       | ;BIC INSTRUCTION FAILED  |
| 2262 | 013446 | 000240 |               | SCOPE   |                       |                          |
| 2263 | 013450 | 012700 | 100000        | MOV     | #100000,RO            | ;MOV 100000 TO RO        |
| 2264 | 013454 | 052700 | 077777        | BIS     | #77777,RO             | ;SELECTIVE SET RO        |
| 2265 | 013460 | 022700 | 177777        | CMP     | #100000!77777,RO      | ;COMPARE LITERAL TO RO   |
| 2266 | 013464 | 001401 |               | BEQ     | .+4                   | ;TEST FOR EQUAL          |
| 2267 | 013466 | 000000 |               | HLT     |                       | ;BIS INSTRUCTION FAILED  |
| 2268 | 013470 | 000240 |               | SCOPE   |                       |                          |
| 2269 | 013472 | 012700 | 077777        | MOV     | #77777,RO             | ;MOV 77777 TO RO         |
| 2270 | 013476 | 042700 | 100000        | BIC     | #100000,RO            | ;SELECTIVELY CLEAR RO    |
| 2271 | 013502 | 022700 | 077777        | CMP     | #-100000-1&77777,RO   | ;COMPARE LITERAL TO RO   |
| 2272 | 013506 | 001401 |               | BEQ     | .+4                   | ;TEST FOR EQUAL          |
| 2273 | 013510 | 000000 |               | HLT     |                       | ;BIC INSTRUCTION FAILED  |
| 2274 | 013512 | 000240 |               | SCOPE   |                       |                          |
| 2275 | 013514 | 012700 | 077777        | MOV     | #77777,RO             | ;MOV 77777 TO RO         |
| 2276 | 013520 | 052700 | 100000        | BIS     | #100000,RO            | ;SELECTIVE SET RO        |

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|      |        |        |        |        |         |                       |                          |
|------|--------|--------|--------|--------|---------|-----------------------|--------------------------|
| 2277 | 013524 | 022700 | 177777 |        | CMP     | #77777!100000,RO      | ;COMPARE LITERAL TO RO   |
| 2278 | 013530 | 001401 |        |        | BEQ     | .+4                   | ;TEST FOR EQUAL          |
| 2279 | 013532 | 000000 |        |        | HLT     |                       | ;BIS INSTRUCTION FAILED  |
| 2280 | 013534 | 000240 |        |        | SCOPE   |                       |                          |
| 2281 | 013536 | 012767 | 100000 | 000406 | MOV     | #100000,TEMP          | ;MOV 100000 TO TEMP      |
| 2282 | 013544 | 042767 | 077777 | 000400 | BIC     | #77777,TEMP           | ;SELECTIVELY CLEAR TEMP  |
| 2283 | 013552 | 022767 | 100000 | 000372 | CMP     | #-77777-1&100000,TEMP | ;COMPARE LITERAL TO TEMP |
| 2284 | 013560 | 001401 |        |        | BEQ     | .+4                   | ;TEST FOR EQUAL          |
| 2285 | 013562 | 000000 |        |        | HLT     |                       | ;BIC INSTRUCTION FAILED  |
| 2286 | 013564 | 000240 |        |        | SCOPE   |                       |                          |
| 2287 | 013566 | 012767 | 100000 | 000356 | MOV     | #100000,TEMP          | ;MOV 100000 TO TEMP      |
| 2288 | 013574 | 052767 | 077777 | 000350 | BIS     | #77777,TEMP           | ;SELECTIVE SET TEMP      |
| 2289 | 013602 | 022767 | 177777 | 000342 | CMP     | #100000!77777,TEMP    | ;COMPARE LITERAL TO TEMP |
| 2290 | 013610 | 001401 |        |        | BEQ     | .+4                   | ;TEST FOR EQUAL          |
| 2291 | 013612 | 000000 |        |        | HLT     |                       | ;BIS INSTRUCTION FAILED  |
| 2292 | 013614 | 000240 |        |        | SCOPE   |                       |                          |
| 2293 | 013616 | 012767 | 077777 | 000326 | MOV     | #77777,TEMP           | ;MOV 77777 TO TEMP       |
| 2294 | 013624 | 042767 | 100000 | 000320 | BIC     | #100000,TEMP          | ;SELECTIVELY CLEAR TEMP  |
| 2295 | 013632 | 022767 | 077777 | 000312 | CMP     | #-100000-1&77777,TEMP | ;COMPARE LITERAL TO TEMP |
| 2296 | 013640 | 001401 |        |        | BEQ     | .+4                   | ;TEST FOR EQUAL          |
| 2297 | 013642 | 000000 |        |        | HLT     |                       | ;BIC INSTRUCTION FAILED  |
| 2298 | 013644 | 000240 |        |        | SCOPE   |                       |                          |
| 2299 | 013646 | 012767 | 077777 | 000276 | MOV     | #77777,TEMP           | ;MOV 77777 TO TEMP       |
| 2300 | 013654 | 052767 | 100000 | 000270 | BIS     | #100000,TEMP          | ;SELECTIVE SET TEMP      |
| 2301 | 013662 | 022767 | 177777 | 000262 | CMP     | #77777!100000,TEMP    | ;COMPARE LITERAL TO TEMP |
| 2302 | 013670 | 001401 |        |        | BEQ     | .+4                   | ;TEST FOR EQUAL          |
| 2303 | 013672 | 000000 |        |        | HLT     |                       | ;BIS INSTRUCTION FAILED  |
| 2304 | 013674 | 000240 |        |        | SCOPE   |                       |                          |
| 2305 |        | 000000 |        |        | N=N+N   |                       |                          |
| 2306 |        | 177777 |        |        | M=M+M+1 |                       |                          |
| 2307 | 013676 | 112767 | 000377 | 000246 | MOVB    | #377,TEMP             | ;MOV 377 TO TEMP         |
| 2308 | 013704 | 142767 | 052525 | 000240 | BICB    | #52525,TEMP           | ;SELECTIVELY CLEAR TEMP  |
| 2309 | 013712 | 122767 | 000252 | 000232 | CMPB    | #-52525-1&377,TEMP    | ;COMPARE LITERAL TO TEMP |
| 2310 | 013720 | 001401 |        |        | BEQ     | .+4                   | ;TEST FOR EQUAL          |
| 2311 | 013722 | 000000 |        |        | HLT     |                       | ;BIC INSTRUCTION FAILED  |
| 2312 | 013724 | 000240 |        |        | SCOPE   |                       |                          |
| 2313 | 013726 | 112767 | 000377 | 000216 | MOVB    | #377,TEMP             | ;MOV 377 TO TEMP         |
| 2314 | 013734 | 152767 | 052525 | 000210 | BISB    | #52525,TEMP           | ;SELECTIVE SET TEMP      |
| 2315 | 013742 | 122767 | 052777 | 000202 | CMPB    | #377!52525,TEMP       | ;COMPARE LITERAL TO TEMP |
| 2316 | 013750 | 001401 |        |        | BEQ     | .+4                   | ;TEST FOR EQUAL          |
| 2317 | 013752 | 000000 |        |        | HLT     |                       | ;BIS INSTRUCTION FAILED  |
| 2318 | 013754 | 000240 |        |        | SCOPE   |                       |                          |
| 2319 | 013756 | 112767 | 177400 | 000166 | MOVB    | #177400,TEMP          | ;MOV 177400 TO TEMP      |
| 2320 | 013764 | 142767 | 025252 | 000160 | BICB    | #25252,TEMP           | ;SELECTIVELY CLEAR TEMP  |
| 2321 | 013772 | 122767 | 152400 | 000152 | CMPB    | #-25252-1&177400,TEMP | ;COMPARE LITERAL TO TEMP |
| 2322 | 014000 | 001401 |        |        | BEQ     | .+4                   | ;TEST FOR EQUAL          |
| 2323 | 014002 | 000000 |        |        | HLT     |                       | ;BIC INSTRUCTION FAILED  |
| 2324 | 014004 | 000240 |        |        | SCOPE   |                       |                          |
| 2325 | 014006 | 112767 | 177400 | 000136 | MOVB    | #177400,TEMP          | ;MOV 177400 TO TEMP      |
| 2326 | 014014 | 152767 | 025252 | 000130 | BISB    | #25252,TEMP           | ;SELECTIVE SET TEMP      |
| 2327 | 014022 | 122767 | 177652 | 000122 | CMPB    | #177400!25252,TEMP    | ;COMPARE LITERAL TO TEMP |
| 2328 | 014030 | 001401 |        |        | BEQ     | .+4                   | ;TEST FOR EQUAL          |
| 2329 | 014032 | 000000 |        |        | HLT     |                       | ;BIS INSTRUCTION FAILED  |
| 2330 | 014034 | 000240 |        |        | SCOPE   |                       |                          |
| 2331 | 014036 | 012767 | 000377 | 000106 | MOV     | #377,TEMP             | ;MOV 377 TO TEMP         |
| 2332 | 014044 | 042767 | 000707 | 000100 | BIC     | #0707,TEMP            | ;SELECTIVELY CLEAR TEMP  |



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|      |        |        |        |        |       |                   |                          |
|------|--------|--------|--------|--------|-------|-------------------|--------------------------|
| 2333 | 014052 | 022767 | 000070 | 000072 | CMP   | #-0707-18377,TEMP | :COMPARE LITERAL TO TEMP |
| 2334 | 014060 | 001401 |        |        | BEQ   | .+4               | :TEST FOR EQUAL          |
| 2335 | 014062 | 000000 |        |        | HLT   |                   | :BIC INSTRUCTION FAILED  |
| 2336 | 014064 | 000240 |        |        | SCOPE |                   |                          |
| 2337 | 014066 | 012767 | 000377 | 000056 | MOV   | #377,TEMP         | :MOV 377 TO TEMP         |
| 2338 | 014074 | 052767 | 000707 | 000050 | BIS   | #0707,TEMP        | :SELECTIVE SET TEMP      |
| 2339 | 014102 | 022767 | 000777 | 000042 | CMP   | #377!0707,TEMP    | :COMPARE LITERAL TO TEMP |
| 2340 | 014110 | 001401 |        |        | BEQ   | .+4               | :TEST FOR EQUAL          |
| 2341 | 014112 | 000000 |        |        | HLT   |                   | :BIS INSTRUCTION FAILED  |
| 2342 | 014114 | 000240 |        |        | SCOPE |                   |                          |
| 2343 |        |        |        |        |       |                   |                          |
| 2344 | 014116 | 005267 | 000026 |        | INC   | LOOP              |                          |
| 2345 | 014122 | 100010 |        |        | BPL   | FIN               |                          |
| 2346 | 014124 | 012737 | 000207 | 177566 | MOV   | #207,2#177566     |                          |
| 2347 | 014132 | 105737 | 177564 |        | TSTB  | 2#177564          |                          |
| 2348 | 014136 | 100375 |        |        | BPL   | .-4               |                          |
| 2349 | 014140 | 005067 | 000004 |        | CLR   | LOOP              |                          |
| 2350 | 014144 | 000137 | 000200 |        | JMP   | 2#200             |                          |
| 2351 | 014150 | 000000 |        |        |       |                   |                          |
| 2352 |        |        |        |        |       |                   |                          |
| 2353 | 014152 | 000000 |        |        |       |                   |                          |
| 2354 |        | 000001 |        |        |       |                   |                          |

FIN:  
LOOP:  
TEMP: 0  
.END

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FIN 014144  
HLT = 000000

LOOP 014150  
M = 177777

N = 000000

|       |       |       |       |       |       |       |       |       |       |       |       |       |
|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 2345  | 2350# | 319   | 323   | 327   | 331   | 335   | 339   | 343   | 347   | 351   | 358   | 362   |
| 266#  | 315   | 378   | 382   | 388   | 392   | 398   | 402   | 408   | 412   | 418   | 422   | 428   |
| 368   | 372   | 442   | 448   | 452   | 458   | 462   | 468   | 472   | 478   | 482   | 488   | 492   |
| 432   | 438   | 510   | 514   | 518   | 522   | 526   | 530   | 534   | 538   | 544   | 548   | 553   |
| 498   | 502   | 566   | 571   | 575   | 580   | 584   | 589   | 593   | 598   | 602   | 607   | 611   |
| 557   | 562   | 625   | 629   | 634   | 638   | 643   | 647   | 652   | 656   | 661   | 665   | 670   |
| 616   | 620   | 683   | 691   | 696   | 702   | 707   | 713   | 718   | 724   | 729   | 735   | 740   |
| 674   | 679   | 760   | 765   | 770   | 775   | 782   | 787   | 792   | 797   | 804   | 809   | 814   |
| 746   | 751   | 831   | 836   | 841   | 848   | 853   | 858   | 863   | 870   | 875   | 880   | 885   |
| 819   | 826   | 902   | 907   | 914   | 919   | 924   | 929   | 936   | 941   | 946   | 951   | 958   |
| 892   | 897   | 973   | 980   | 985   | 990   | 995   | 1002  | 1007  | 1012  | 1017  | 1024  | 1029  |
| 963   | 968   | 1046  | 1051  | 1056  | 1061  | 1068  | 1073  | 1078  | 1083  | 1090  | 1095  | 1100  |
| 1034  | 1039  | 1117  | 1124  | 1129  | 1134  | 1139  | 1144  | 1149  | 1154  | 1160  | 1165  | 1170  |
| 1105  | 1112  | 1185  | 1190  | 1196  | 1201  | 1206  | 1211  | 1216  | 1221  | 1226  | 1232  | 1237  |
| 1175  | 1180  | 1252  | 1257  | 1262  | 1268  | 1273  | 1278  | 1283  | 1288  | 1293  | 1298  | 1304  |
| 1242  | 1247  | 1319  | 1324  | 1329  | 1334  | 1341  | 1346  | 1351  | 1358  | 1364  | 1370  | 1376  |
| 1309  | 1314  | 1395  | 1401  | 1408  | 1414  | 1420  | 1426  | 1433  | 1439  | 1445  | 1451  | 1458  |
| 1383  | 1389  | 1476  | 1483  | 1489  | 1495  | 1501  | 1511  | 1517  | 1523  | 1529  | 1535  | 1541  |
| 1464  | 1470  | 1561  | 1567  | 1573  | 1579  | 1585  | 1591  | 1597  | 1603  | 1611  | 1617  | 1623  |
| 1547  | 1553  | 1641  | 1647  | 1653  | 1661  | 1667  | 1673  | 1679  | 1685  | 1691  | 1697  | 1703  |
| 1629  | 1635  | 1723  | 1729  | 1735  | 1741  | 1747  | 1753  | 1761  | 1767  | 1773  | 1779  | 1785  |
| 1711  | 1717  | 1803  | 1811  | 1817  | 1823  | 1829  | 1835  | 1841  | 1847  | 1853  | 1861  | 1867  |
| 1791  | 1797  | 1885  | 1891  | 1897  | 1903  | 1911  | 1917  | 1923  | 1929  | 1935  | 1941  | 1947  |
| 1873  | 1879  | 1967  | 1973  | 1979  | 1985  | 1991  | 1997  | 2003  | 2011  | 2017  | 2023  | 2029  |
| 1953  | 1961  | 2047  | 2053  | 2061  | 2067  | 2073  | 2079  | 2085  | 2091  | 2097  | 2103  | 2111  |
| 2035  | 2041  | 2129  | 2135  | 2141  | 2147  | 2153  | 2161  | 2167  | 2173  | 2179  | 2185  | 2191  |
| 2117  | 2123  | 2211  | 2217  | 2223  | 2229  | 2235  | 2241  | 2247  | 2253  | 2261  | 2267  | 2273  |
| 2197  | 2203  | 2291  | 2297  | 2303  | 2311  | 2317  | 2323  | 2329  | 2335  | 2341  |       |       |
| 2279  | 2285  | 2351# |       |       |       |       |       |       |       |       |       |       |
| 2344# | 2349# |       | 364#  | 365   | 369   | 374#  | 375   | 379   | 384#  | 385   | 389   | 394#  |
| 354#  | 355   | 359   | 405   | 409   | 414#  | 415   | 419   | 424#  | 425   | 429   | 434#  | 435   |
| 395   | 399   | 404#  | 445   | 449   | 454#  | 455   | 459   | 464#  | 465   | 469   | 474#  | 475   |
| 439   | 444#  | 445   | 494#  | 495   | 499   | 504#  | 505   | 509   | 514#  | 515   | 519   | 524#  |
| 484#  | 485   | 489   | 793   | 799#  | 800   | 805   | 810   | 815   | 821#  | 822   | 827   | 832   |
| 778   | 783   | 788   | 849   | 854   | 859   | 865#  | 866   | 871   | 876   | 881   | 887#  | 888   |
| 837   | 843#  | 844   | 909#  | 910   | 915   | 920   | 925   | 931#  | 932   | 937   | 942   | 947   |
| 893   | 898   | 903   | 964   | 969   | 975#  | 976   | 981   | 986   | 991   | 997#  | 998   | 1003  |
| 953#  | 954   | 959   | 1020  | 1025  | 1030  | 1035  | 1041# | 1042  | 1047  | 1052  | 1057  | 1063# |
| 1008  | 1013  | 1019# | 1079  | 1085# | 1086  | 1091  | 1096  | 1101  | 1107# | 1119# | 1155# | 1191# |
| 1064  | 1069  | 1074  | 1335# | 1506# | 1507  | 1519  | 1531  | 1543  | 1556# | 1557  | 1569  | 1581  |
| 1227# | 1263# | 1299# | 1619  | 1631  | 1643  | 1656# | 1657  | 1669  | 1681  | 1693  | 1706# | 1707  |
| 1593  | 1606# | 1607  | 1756# | 1757  | 1769  | 1781  | 1793  | 1806# | 1807  | 1819  | 1831  | 1843  |
| 1719  | 1731  | 1743  | 1881  | 1893  | 1906# | 1907  | 1919  | 1931  | 1943  | 1956# | 1957  | 1969  |
| 1856# | 1857  | 1869  | 2007  | 2019  | 2031  | 2043  | 2056# | 2057  | 2069  | 2081  | 2093  | 2106# |
| 1981  | 1993  | 2006# | 2143  | 2156# | 2157  | 2169  | 2181  | 2193  | 2206# | 2207  | 2219  | 2231  |
| 2107  | 2119  | 2131  | 2269  | 2281  | 2293  | 2306# |       |       |       |       |       |       |
| 2243  | 2256# | 2257  |       |       |       |       |       |       |       |       |       |       |
| 265   | 353#  | 355   | 359   | 363#  | 365   | 369   | 373#  | 375   | 379   | 383#  | 385   | 389   |
| 393#  | 395   | 399   | 403#  | 405   | 409   | 413#  | 415   | 419   | 423#  | 425   | 429   | 433#  |
| 435   | 439   | 443#  | 445   | 449   | 453#  | 455   | 459   | 463#  | 465   | 469   | 473#  | 475   |
| 479   | 483#  | 485   | 489   | 493#  | 495   | 499   | 503#  | 509   | 514#  | 515   | 519   | 524#  |
| 550   | 554   | 558#  | 559   | 563   | 567#  | 568   | 572   | 576#  | 577   | 581   | 585#  | 586   |
| 590   | 594#  | 595   | 599   | 603#  | 604   | 608   | 612#  | 613   | 617   | 621#  | 622   | 626   |
| 630#  | 631   | 635   | 639#  | 640   | 644   | 648#  | 649   | 653   | 657#  | 658   | 662   | 666#  |
| 667   | 671   | 675#  | 676   | 680   | 684#  | 686#  | 688#  | 689   | 693#  | 694   | 697#  | 699#  |
| 700   | 704#  | 705   | 708#  | 710#  | 711   | 715#  | 716   | 719#  | 721#  | 722   | 726#  | 727   |



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DOIA.P11 CROSS REFERENCE TABLE -- USER SYMBOLS

RN    = %000000  
RO    = %000000

R1    = %000001  
R2    = %000002  
R3    = %000003  
R4    = %000004  
R5    = %000005  
R6    = %000006  
SCOPE = 000240

|       |       |       |       |       |       |       |       |       |       |       |       |       |
|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 730#  | 732*  | 733   | 737*  | 738   | 741#  | 743*  | 744   | 748*  | 749   | 752#  | 754#  | 756   |
| 761   | 766   | 771   | 776#  | 778   | 783   | 788   | 793   | 798#  | 800   | 805   | 810   | 815   |
| 820#  | 822   | 827   | 832   | 837   | 842#  | 844   | 849   | 854   | 859   | 864#  | 866   | 871   |
| 876   | 881   | 886#  | 888   | 893   | 898   | 903   | 908#  | 910   | 915   | 920   | 925   | 930#  |
| 932   | 937   | 942   | 947   | 952#  | 954   | 959   | 964   | 969   | 974#  | 976   | 981   | 986   |
| 991   | 996#  | 998   | 1003  | 1008  | 1013  | 1018# | 1020  | 1025  | 1030  | 1035  | 1040# | 1042  |
| 1047  | 1052  | 1057  | 1062# | 1064  | 1069  | 1074  | 1079  | 1084# | 1086  | 1091  | 1096  | 1101  |
| 1106# | 1121* | 1122  | 1126* | 1127  | 1131* | 1132  | 1136* | 1137  | 1141* | 1142  | 1146* | 1147  |
| 1151* | 1152  | 1157* | 1158  | 1162* | 1163  | 1167* | 1168  | 1172* | 1173  | 1177* | 1178  | 1182* |
| 1183  | 1187* | 1188  | 1193* | 1194  | 1198* | 1199  | 1203* | 1204  | 1208* | 1209  | 1213* | 1214  |
| 1218* | 1219  | 1223* | 1224  | 1229* | 1230  | 1234* | 1235  | 1239* | 1240  | 1244* | 1245  | 1249* |
| 1250  | 1254* | 1255  | 1259* | 1260  | 1265* | 1266  | 1270* | 1271  | 1275* | 1276  | 1280* | 1281  |
| 1285* | 1286  | 1290* | 1291  | 1295* | 1296  | 1301* | 1302  | 1306* | 1307  | 1311* | 1312  | 1316* |
| 1317  | 1321* | 1322  | 1326* | 1327  | 1331* | 1332  | 1353# | 1354* | 1355* | 1356  | 1360* | 1361* |
| 1362  | 1366* | 1367* | 1368  | 1372* | 1373* | 1374  | 1378# | 1379* | 1380* | 1381  | 1385* | 1386* |
| 1387  | 1391* | 1392* | 1393  | 1397* | 1398* | 1399  | 1403# | 1404* | 1405* | 1406  | 1410* | 1411* |
| 1412  | 1416* | 1417* | 1418  | 1422* | 1423* | 1424  | 1428# | 1429* | 1430* | 1431  | 1435* | 1436* |
| 1437  | 1441* | 1442* | 1443  | 1447* | 1448* | 1449  | 1453# | 1454* | 1455* | 1456  | 1460* | 1461* |
| 1462  | 1466* | 1467* | 1468  | 1472* | 1473* | 1474  | 1478# | 1479* | 1480* | 1481  | 1485* | 1486* |
| 1487  | 1491* | 1492* | 1493  | 1497* | 1498* | 1499  | 1503# | 1505* | 1507  | 1519  | 1531  | 1543  |
| 1555# | 1557  | 1569  | 1581  | 1593  | 1605# | 1607  | 1619  | 1631  | 1643  | 1655# | 1657  | 1669  |
| 1681  | 1693  | 1705# | 1707  | 1719  | 1731  | 1743  | 1755# | 1757  | 1769  | 1781  | 1793  | 1805# |
| 1807  | 1819  | 1831  | 1843  | 1855# | 1857  | 1869  | 1881  | 1893  | 1905# | 1907  | 1919  | 1931  |
| 1943  | 1955# | 1957  | 1969  | 1981  | 1993  | 2005# | 2007  | 2019  | 2031  | 2043  | 2055# | 2057  |
| 2069  | 2081  | 2093  | 2105# | 2107  | 2119  | 2131  | 2143  | 2155# | 2157  | 2169  | 2181  | 2193  |
| 2205# | 2207  | 2219  | 2231  | 2243  | 2255# | 2257  | 2269  | 2281  | 2293  | 2305# |       |       |
| 265#  |       |       |       |       |       |       |       |       |       |       |       |       |
| 264#  | 757*  | 758   | 762*  | 763   | 779*  | 780   | 784*  | 785   | 801*  | 802   | 806*  | 807   |
| 823#  | 824   | 828*  | 829   | 845*  | 846   | 850*  | 851   | 867*  | 868   | 872*  | 873   | 889*  |
| 890   | 894*  | 895   | 911*  | 912   | 916*  | 917   | 933*  | 934   | 938*  | 939   | 955*  | 956   |
| 960*  | 961   | 977*  | 978   | 982*  | 983   | 999*  | 1000  | 1004* | 1005  | 1021* | 1022  | 1026* |
| 1027  | 1043* | 1044  | 1048* | 1049  | 1065* | 1066  | 1070* | 1071  | 1087* | 1088  | 1092* | 1093  |
| 1507* | 1508* | 1509  | 1513* | 1514* | 1515  | 1519* | 1520* | 1521  | 1525* | 1526* | 1527  | 1557* |
| 1558* | 1559  | 1563* | 1564* | 1565  | 1569* | 1570* | 1571  | 1575* | 1576* | 1577  | 1607* | 1608* |
| 1609  | 1613* | 1614* | 1615  | 1619* | 1620* | 1621  | 1625* | 1626* | 1627  | 1657* | 1658* | 1659  |
| 1663* | 1664* | 1665  | 1669* | 1670* | 1671  | 1675* | 1676* | 1677  | 1707* | 1708* | 1709  | 1713* |
| 1714* | 1715  | 1719* | 1720* | 1721  | 1725* | 1726* | 1727  | 1757* | 1758* | 1759  | 1763* | 1764* |
| 1765  | 1769* | 1770* | 1771  | 1775* | 1776* | 1777  | 1807* | 1808* | 1809  | 1813* | 1814* | 1815  |
| 1819* | 1820* | 1821  | 1825* | 1826* | 1827  | 1857* | 1858* | 1859  | 1863* | 1864* | 1865  | 1869* |
| 1870* | 1871  | 1875* | 1876* | 1877  | 1907* | 1908* | 1909  | 1913* | 1914* | 1915  | 1919* | 1920* |
| 1921  | 1925* | 1926* | 1927  | 1957* | 1958* | 1959  | 1963* | 1964* | 1965  | 1969* | 1970* | 1971  |
| 1975* | 1976* | 1977  | 2007* | 2008* | 2009  | 2013* | 2014* | 2015  | 2019* | 2020* | 2021  | 2025* |
| 2026* | 2027  | 2057* | 2058* | 2059  | 2063* | 2064* | 2065  | 2069* | 2070* | 2071  | 2075* | 2076* |
| 2077  | 2107* | 2108* | 2109  | 2113* | 2114* | 2115  | 2119* | 2120* | 2121  | 2125* | 2126* | 2127  |
| 2157* | 2158* | 2159  | 2163* | 2164* | 2165  | 2169* | 2170* | 2171  | 2175* | 2176* | 2177  | 2207* |
| 2208* | 2209  | 2213* | 2214* | 2215  | 2219* | 2220* | 2221  | 2225* | 2226* | 2227  | 2257* | 2258* |
| 2259  | 2263* | 2264* | 2265  | 2269* | 2270* | 2271  | 2275* | 2276* | 2277  |       |       |       |
| 258#  |       |       |       |       |       |       |       |       |       |       |       |       |
| 259#  |       |       |       |       |       |       |       |       |       |       |       |       |
| 260#  |       |       |       |       |       |       |       |       |       |       |       |       |
| 261#  |       |       |       |       |       |       |       |       |       |       |       |       |
| 262#  |       |       |       |       |       |       |       |       |       |       |       |       |
| 263#  |       |       |       |       |       |       |       |       |       |       |       |       |
| 267#  | 312   | 316   | 320   | 324   | 328   | 332   | 336   | 340   | 344   | 348   | 355   | 359   |
| 365   | 369   | 375   | 379   | 385   | 389   | 395   | 399   | 405   | 409   | 415   | 419   | 425   |
| 429   | 435   | 439   | 445   | 449   | 455   | 459   | 465   | 469   | 475   | 479   | 485   | 489   |



|       |       |       |       |       |       |       |       |       |       |       |       |       |
|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 495   | 499   | 507   | 511   | 515   | 519   | 523   | 527   | 531   | 535   | 541   | 545   | 550   |
| 554   | 559   | 563   | 568   | 572   | 577   | 581   | 586   | 590   | 595   | 599   | 604   | 608   |
| 613   | 617   | 622   | 626   | 631   | 635   | 640   | 644   | 649   | 653   | 658   | 662   | 667   |
| 671   | 676   | 680   | 687   | 692   | 698   | 703   | 709   | 714   | 720   | 725   | 731   | 736   |
| 742   | 747   | 756   | 761   | 766   | 771   | 778   | 783   | 788   | 793   | 800   | 805   | 810   |
| 815   | 822   | 827   | 832   | 837   | 844   | 849   | 854   | 859   | 866   | 871   | 876   | 881   |
| 888   | 893   | 898   | 903   | 910   | 915   | 920   | 925   | 932   | 937   | 942   | 947   | 954   |
| 959   | 964   | 969   | 976   | 981   | 986   | 991   | 998   | 1003  | 1008  | 1013  | 1020  | 1025  |
| 1030  | 1035  | 1042  | 1047  | 1052  | 1057  | 1064  | 1069  | 1074  | 1079  | 1086  | 1091  | 1096  |
| 1101  | 1108  | 1113  | 1120  | 1125  | 1130  | 1135  | 1140  | 1145  | 1150  | 1156  | 1161  | 1166  |
| 1171  | 1176  | 1181  | 1186  | 1192  | 1197  | 1202  | 1207  | 1212  | 1217  | 1222  | 1228  | 1233  |
| 1238  | 1243  | 1248  | 1253  | 1258  | 1264  | 1269  | 1274  | 1279  | 1284  | 1289  | 1294  | 1300  |
| 1305  | 1310  | 1315  | 1320  | 1325  | 1330  | 1337  | 1342  | 1347  | 1359  | 1365  | 1371  | 1377  |
| 1384  | 1390  | 1396  | 1402  | 1409  | 1415  | 1421  | 1427  | 1434  | 1440  | 1446  | 1452  | 1459  |
| 1465  | 1471  | 1477  | 1484  | 1490  | 1496  | 1502  | 1512  | 1518  | 1524  | 1530  | 1536  | 1542  |
| 1548  | 1554  | 1562  | 1568  | 1574  | 1580  | 1586  | 1592  | 1598  | 1604  | 1612  | 1618  | 1624  |
| 1630  | 1636  | 1642  | 1648  | 1654  | 1662  | 1668  | 1674  | 1680  | 1686  | 1692  | 1698  | 1704  |
| 1712  | 1718  | 1724  | 1730  | 1736  | 1742  | 1748  | 1754  | 1762  | 1768  | 1774  | 1780  | 1786  |
| 1792  | 1798  | 1804  | 1812  | 1818  | 1824  | 1830  | 1836  | 1842  | 1848  | 1854  | 1862  | 1868  |
| 1874  | 1880  | 1886  | 1892  | 1898  | 1904  | 1912  | 1918  | 1924  | 1930  | 1936  | 1942  | 1948  |
| 1954  | 1962  | 1968  | 1974  | 1980  | 1986  | 1992  | 1998  | 2004  | 2012  | 2018  | 2024  | 2030  |
| 2036  | 2042  | 2048  | 2054  | 2062  | 2068  | 2074  | 2080  | 2086  | 2092  | 2098  | 2104  | 2112  |
| 2118  | 2124  | 2130  | 2136  | 2142  | 2148  | 2154  | 2162  | 2168  | 2174  | 2180  | 2186  | 2192  |
| 2198  | 2204  | 2212  | 2218  | 2224  | 2230  | 2236  | 2242  | 2248  | 2254  | 2262  | 2268  | 2274  |
| 2280  | 2286  | 2292  | 2298  | 2304  | 2312  | 2318  | 2324  | 2330  | 2336  | 2342  |       |       |
| 767*  | 768   | 772*  | 773   | 789*  | 790   | 794*  | 795   | 811*  | 812   | 816*  | 817   | 833*  |
| 834   | 838*  | 839   | 855*  | 856   | 860*  | 861   | 877*  | 878   | 882*  | 883   | 899*  | 900   |
| 904*  | 905   | 921*  | 922   | 926*  | 927   | 943*  | 944   | 948*  | 949   | 965*  | 966   | 970*  |
| 971   | 987*  | 988   | 992*  | 993   | 1009* | 1010  | 1014* | 1015  | 1031* | 1032  | 1036* | 1037  |
| 1053* | 1054  | 1058* | 1059  | 1075* | 1076  | 1080* | 1081  | 1097* | 1098  | 1102* | 1103  | 1109* |
| 1110  | 1114* | 1115  | 1338* | 1339  | 1343* | 1344  | 1348* | 1349  | 1531* | 1532* | 1533  | 1537* |
| 1538* | 1539  | 1543* | 1544* | 1545  | 1549* | 1550* | 1551  | 1581* | 1582* | 1583  | 1587* | 1588* |
| 1589  | 1593* | 1594* | 1595  | 1599* | 1600* | 1601  | 1631* | 1632* | 1633  | 1637* | 1638* | 1639  |
| 1643* | 1644* | 1645  | 1649* | 1650* | 1651  | 1681* | 1682* | 1683  | 1687* | 1688* | 1689  | 1693* |
| 1694* | 1695  | 1699* | 1700* | 1701  | 1731* | 1732* | 1733  | 1737* | 1738* | 1739  | 1743* | 1744* |
| 1745  | 1749* | 1750* | 1751  | 1781* | 1782* | 1783  | 1787* | 1788* | 1789  | 1793* | 1794* | 1795  |
| 1799* | 1800* | 1801  | 1831* | 1832* | 1833  | 1837* | 1838* | 1839  | 1843* | 1844* | 1845  | 1849* |
| 1850* | 1851  | 1881* | 1882* | 1883  | 1887* | 1888* | 1889  | 1893* | 1894* | 1895  | 1899* | 1900* |
| 1901  | 1931* | 1932* | 1933  | 1937* | 1938* | 1939  | 1943* | 1944* | 1945  | 1949* | 1950* | 1951  |
| 1981* | 1982* | 1983  | 1987* | 1988* | 1989  | 1993* | 1994* | 1995  | 1999* | 2000* | 2001  | 2031* |
| 2032* | 2033  | 2037* | 2038* | 2039  | 2043* | 2044* | 2045  | 2049* | 2050* | 2051  | 2081* | 2082* |
| 2083  | 2087* | 2088* | 2089  | 2093* | 2094* | 2095  | 2099* | 2100* | 2101  | 2131* | 2132* | 2133  |
| 2137* | 2138* | 2139  | 2143* | 2144* | 2145  | 2149* | 2150* | 2151  | 2181* | 2182* | 2183  | 2187* |
| 2188* | 2189  | 2193* | 2194* | 2195  | 2199* | 2200* | 2201  | 2231* | 2232* | 2233  | 2237* | 2238* |
| 2239  | 2243* | 2244* | 2245  | 2249* | 2250* | 2251  | 2281* | 2282* | 2283  | 2287* | 2288* | 2289  |
| 2293* | 2294* | 2295  | 2299* | 2300* | 2301  | 2307* | 2308* | 2309  | 2313* | 2314* | 2315  | 2319* |
| 2320* | 2321  | 2325* | 2326* | 2327  | 2331* | 2332* | 2333  | 2337* | 2338* | 2339  | 2353* |       |
| 269*  | 270   | 272   | 274   | 276   | 278   | 280   | 282   | 284   | 286   | 288   | 290   | 292   |
| 294   | 296   | 298   | 300   | 302*  | 314   | 318   | 322   | 326   | 330   | 334   | 338   | 342   |
| 346   | 350   | 357   | 361   | 367   | 371   | 377   | 381   | 387   | 391   | 397   | 401   | 407   |
| 411   | 417   | 421   | 427   | 431   | 437   | 441   | 447   | 451   | 457   | 461   | 467   | 471   |
| 477   | 481   | 487   | 491   | 497   | 501   | 509   | 513   | 517   | 521   | 525   | 529   | 533   |
| 537   | 543   | 547   | 552   | 556   | 561   | 565   | 570   | 574   | 579   | 583   | 588   | 592   |
| 597   | 601   | 606   | 610   | 615   | 619   | 624   | 628   | 633   | 637   | 642   | 646   | 651   |
| 655   | 660   | 664   | 669   | 673   | 678   | 682   | 690   | 695   | 701   | 706   | 712   | 717   |
| 723   | 728   | 734   | 739   | 745   | 750   | 759   | 764   | 769   | 774   | 781   | 786   | 791   |

TEMP 014152

= 014154



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DOIA.P11 CROSS REFERENCE TABLE -- USER SYMBOLS

[illegible]

|        |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
|--------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| BICX   | 308# | 1354 | 1366 | 1379 | 1391 | 1404 | 1416 | 1429 | 1441 | 1454 | 1466 | 1479 | 1491 | 1507 | 1519 |
|        | 1531 | 1543 | 1557 | 1569 | 1581 | 1593 | 1607 | 1619 | 1631 | 1643 | 1657 | 1669 | 1681 | 1693 | 1707 |
|        | 1719 | 1731 | 1743 | 1757 | 1769 | 1781 | 1793 | 1807 | 1819 | 1831 | 1843 | 1857 | 1869 | 1881 | 1893 |
|        | 1907 | 1919 | 1931 | 1943 | 1957 | 1969 | 1981 | 1993 | 2007 | 2019 | 2031 | 2043 | 2057 | 2069 | 2081 |
|        | 2093 | 2107 | 2119 | 2131 | 2143 | 2157 | 2169 | 2181 | 2193 | 2207 | 2219 | 2231 | 2243 | 2257 | 2269 |
|        | 2281 | 2293 | 2307 | 2319 | 2331 |      |      |      |      |      |      |      |      |      |      |
| BISC   | 310# | 1354 | 1366 | 1379 | 1391 | 1404 | 1416 | 1429 | 1441 | 1454 | 1466 | 1479 | 1491 | 1507 | 1519 |
|        | 1531 | 1543 | 1557 | 1569 | 1581 | 1593 | 1607 | 1619 | 1631 | 1643 | 1657 | 1669 | 1681 | 1693 | 1707 |
|        | 1719 | 1731 | 1743 | 1757 | 1769 | 1781 | 1793 | 1807 | 1819 | 1831 | 1843 | 1857 | 1869 | 1881 | 1893 |
|        | 1907 | 1919 | 1931 | 1943 | 1957 | 1969 | 1981 | 1993 | 2007 | 2019 | 2031 | 2043 | 2057 | 2069 | 2081 |
|        | 2093 | 2107 | 2119 | 2131 | 2143 | 2157 | 2169 | 2181 | 2193 | 2207 | 2219 | 2231 | 2243 | 2257 | 2269 |
|        | 2281 | 2293 | 2307 | 2319 | 2331 |      |      |      |      |      |      |      |      |      |      |
| BISX   | 309# | 1360 | 1372 | 1385 | 1397 | 1410 | 1422 | 1435 | 1447 | 1460 | 1472 | 1485 | 1497 | 1513 | 1525 |
|        | 1537 | 1549 | 1563 | 1575 | 1587 | 1599 | 1613 | 1625 | 1637 | 1649 | 1663 | 1675 | 1687 | 1699 | 1713 |
|        | 1725 | 1737 | 1749 | 1763 | 1775 | 1787 | 1799 | 1813 | 1825 | 1837 | 1849 | 1863 | 1875 | 1887 | 1899 |
|        | 1913 | 1925 | 1937 | 1949 | 1963 | 1975 | 1987 | 1999 | 2013 | 2025 | 2037 | 2049 | 2063 | 2075 | 2087 |
|        | 2099 | 2113 | 2125 | 2137 | 2149 | 2163 | 2175 | 2187 | 2199 | 2213 | 2225 | 2237 | 2249 | 2263 | 2275 |
|        | 2287 | 2299 | 2313 | 2325 | 2337 |      |      |      |      |      |      |      |      |      |      |
| BITV   | 306# | 312  | 316  | 320  | 324  | 328  | 332  | 336  | 340  | 344  | 348  | 355  | 359  | 365  | 369  |
|        | 375  | 379  | 385  | 389  | 395  | 399  | 405  | 409  | 415  | 419  | 425  | 429  | 435  | 439  | 445  |
|        | 449  | 455  | 459  | 465  | 469  | 475  | 479  | 485  | 489  | 495  | 499  |      |      |      |      |
| BITW   | 307# | 507  | 511  | 515  | 519  | 523  | 527  | 531  | 535  | 541  | 545  | 550  | 554  | 559  | 563  |
|        | 568  | 572  | 577  | 581  | 586  | 590  | 595  | 599  | 604  | 608  | 613  | 617  | 622  | 626  | 631  |
|        | 635  | 640  | 644  | 649  | 653  | 658  | 662  | 667  | 671  | 676  | 680  |      |      |      |      |
| BITX   | 304# | 687  | 692  | 698  | 703  | 709  | 714  | 720  | 725  | 731  | 736  | 742  | 747  | 756  | 761  |
|        | 766  | 771  | 778  | 783  | 788  | 793  | 800  | 805  | 810  | 815  | 822  | 827  | 832  | 837  | 844  |
|        | 849  | 854  | 859  | 866  | 871  | 876  | 881  | 888  | 893  | 898  | 903  | 910  | 915  | 920  | 925  |
|        | 932  | 937  | 942  | 947  | 954  | 959  | 964  | 969  | 976  | 981  | 986  | 991  | 998  | 1003 | 1008 |
|        | 1013 | 1020 | 1025 | 1030 | 1035 | 1042 | 1047 | 1052 | 1057 | 1064 | 1069 | 1074 | 1079 | 1086 | 1091 |
|        | 1096 | 1101 | 1108 | 1113 |      |      |      |      |      |      |      |      |      |      |      |
| BITY   | 305# | 1120 | 1125 | 1130 | 1135 | 1140 | 1145 | 1150 | 1156 | 1161 | 1166 | 1171 | 1176 | 1181 | 1186 |
|        | 1192 | 1197 | 1202 | 1207 | 1212 | 1217 | 1222 | 1228 | 1233 | 1238 | 1243 | 1248 | 1253 | 1258 | 1264 |
|        | 1269 | 1274 | 1279 | 1284 | 1289 | 1294 | 1300 | 1305 | 1310 | 1315 | 1320 | 1325 | 1330 | 1337 | 1342 |
|        | 1347 |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| COMMEN | 1#   |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| ENDCOM | 1#   |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| ESCAPE | 1#   |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| GETPRI | 1#   |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| GETSWR | 1#   |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| MULT   | 1#   |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| NEWTST | 1#   |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| POP    | 1#   |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| PUSH   | 1#   |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| REPORT | 1#   |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| SETPRI | 1#   |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| SETUP  | 1#   |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| SKIP   | 1#   |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| SLASH  | 1#   |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| STARS  | 1#   |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| SWRSU  | 1#   |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| TYPBIN | 1#   |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| TYPDEC | 1#   |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| TYPNAM | 1#   |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| TYPNUM | 1#   |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| TYPOCS | 1#   |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| TYPOCT | 1#   |      |      |      |      |      |      |      |      |      |      |      |      |      |      |



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DATA.P11 CROSS REFERENCE TABLE -- MACRO NAMES

|        |   |
|--------|---|
| .TYPXT | 1 |
| .SSESC | 1 |
| .SSNEW | 1 |
| .SSKID | 1 |
| .EQUAT | 1 |
| .HERDE | 1 |
| .KTII  | 1 |
| .SETUP | 1 |
| .SWRHI | 1 |
| .SACTI | 1 |
| .SASTB | 1 |
| .SASTH | 1 |
| .SASTY | 1 |
| .SASTA | 1 |
| .SCATC | 1 |
| .SCMTA | 1 |
| .SOB2D | 1 |
| .SOB2O | 1 |
| .SOIV  | 1 |
| .SEOP  | 1 |
| .SERRO | 1 |
| .SERRT | 1 |
| .SMULT | 1 |
| .SPOLE | 1 |
| .SRAND | 1 |
| .SRDDE | 1 |
| .SRDCC | 1 |
| .SREAO | 1 |
| .SR2AZ | 1 |
| .SSAVE | 1 |
| .SSB2D | 1 |
| .SSB2O | 1 |
| .SSCOP | 1 |
| .SSIZE | 1 |
| .SSUPR | 1 |
| .STRAP | 1 |
| .STYBE | 1 |
| .STYPO | 1 |
| .STYPE | 1 |
| .STYPO | 1 |
| .S40CA | 1 |
| .1170  | 1 |

|      |      |      |      |      |      |      |      |      |      |      |      |      |      |       |       |
|------|------|------|------|------|------|------|------|------|------|------|------|------|------|-------|-------|
| BEQ  | 314  | 319  | 322  | 326  | 330  | 334  | 338  | 342  | 346  | 350  | 357  | 361  | 367  | 371   | 377   |
|      | 381  | 387  | 391  | 397  | 401  | 407  | 411  | 417  | 421  | 427  | 431  | 437  | 441  | 447   | 451   |
|      | 457  | 461  | 467  | 471  | 477  | 481  | 487  | 491  | 497  | 501  | 690  | 695  | 701  | 706   | 712   |
|      | 717  | 723  | 728  | 734  | 739  | 745  | 750  | 759  | 764  | 769  | 774  | 781  | 786  | 791   | 796   |
|      | 803  | 808  | 813  | 818  | 825  | 830  | 835  | 840  | 847  | 852  | 857  | 862  | 869  | 874   | 879   |
|      | 884  | 891  | 896  | 901  | 906  | 913  | 918  | 923  | 928  | 935  | 940  | 945  | 950  | 957   | 962   |
|      | 967  | 972  | 979  | 984  | 989  | 994  | 1001 | 1006 | 1011 | 1016 | 1023 | 1028 | 1033 | 1038  | 1045  |
|      | 1050 | 1055 | 1060 | 1067 | 1072 | 1077 | 1082 | 1089 | 1094 | 1099 | 1104 | 1111 | 1116 | 11357 | 11363 |
|      | 1369 | 1375 | 1382 | 1388 | 1394 | 1400 | 1407 | 1413 | 1419 | 1425 | 1432 | 1438 | 1444 | 1450  | 1457  |
|      | 1463 | 1469 | 1475 | 1482 | 1488 | 1494 | 1500 | 1510 | 1516 | 1522 | 1528 | 1534 | 1540 | 1546  | 1552  |
|      | 1560 | 1566 | 1572 | 1578 | 1584 | 1590 | 1596 | 1602 | 1610 | 1616 | 1622 | 1628 | 1634 | 1640  | 1646  |
|      | 1652 | 1660 | 1666 | 1672 | 1678 | 1684 | 1690 | 1696 | 1702 | 1710 | 1716 | 1722 | 1728 | 1734  | 1740  |
|      | 1746 | 1752 | 1760 | 1766 | 1772 | 1778 | 1784 | 1790 | 1796 | 1802 | 1810 | 1816 | 1822 | 1828  | 1834  |
|      | 1840 | 1845 | 1852 | 1860 | 1866 | 1872 | 1878 | 1884 | 1890 | 1896 | 1902 | 1910 | 1916 | 1922  | 1928  |
|      | 1934 | 1940 | 1946 | 1952 | 1960 | 1966 | 1972 | 1978 | 1984 | 1990 | 1996 | 2002 | 2010 | 2016  | 2022  |
|      | 2028 | 2034 | 2040 | 2046 | 2052 | 2060 | 2066 | 2072 | 2078 | 2084 | 2090 | 2096 | 2102 | 2110  | 2116  |
|      | 2122 | 2128 | 2134 | 2140 | 2146 | 2152 | 2160 | 2166 | 2172 | 2178 | 2184 | 2190 | 2196 | 2202  | 2210  |
|      | 2216 | 2222 | 2228 | 2234 | 2240 | 2246 | 2252 | 2260 | 2266 | 2272 | 2278 | 2284 | 2290 | 2296  | 2302  |
|      | 2310 | 2316 | 2322 | 2328 | 2334 | 2340 |      |      |      |      |      |      |      |       |       |
| BIC  | 1355 | 1367 | 1380 | 1392 | 1405 | 1417 | 1430 | 1442 | 1455 | 1467 | 1480 | 1492 | 1508 | 1520  | 1532  |
|      | 1544 | 1558 | 1570 | 1582 | 1594 | 1608 | 1620 | 1632 | 1644 | 1658 | 1670 | 1682 | 1694 | 1708  | 1720  |
|      | 1732 | 1744 | 1758 | 1770 | 1782 | 1794 | 1808 | 1820 | 1832 | 1844 | 1858 | 1870 | 1882 | 1894  | 1908  |
|      | 1920 | 1932 | 1944 | 1958 | 1970 | 1982 | 1994 | 2008 | 2020 | 2032 | 2044 | 2058 | 2070 | 2082  | 2094  |
|      | 2108 | 2120 | 2132 | 2144 | 2158 | 2170 | 2182 | 2194 | 2208 | 2220 | 2232 | 2244 | 2258 | 2270  | 2282  |
|      | 2294 | 2332 |      |      |      |      |      |      |      |      |      |      |      |       |       |
| BICB | 2308 | 2320 |      |      |      |      |      |      |      |      |      |      |      |       |       |
| BIS  | 1361 | 1373 | 1386 | 1398 | 1411 | 1423 | 1436 | 1448 | 1461 | 1473 | 1486 | 1498 | 1514 | 1526  | 1538  |
|      | 1550 | 1564 | 1576 | 1588 | 1600 | 1614 | 1626 | 1638 | 1650 | 1664 | 1676 | 1688 | 1700 | 1714  | 1726  |
|      | 1738 | 1750 | 1764 | 1776 | 1788 | 1800 | 1814 | 1826 | 1838 | 1850 | 1864 | 1876 | 1888 | 1900  | 1914  |
|      | 1926 | 1938 | 1950 | 1964 | 1976 | 1988 | 2000 | 2014 | 2026 | 2038 | 2050 | 2064 | 2076 | 2088  | 2100  |
|      | 2114 | 2126 | 2138 | 2150 | 2164 | 2176 | 2188 | 2200 | 2214 | 2226 | 2238 | 2250 | 2264 | 2276  | 2288  |
|      | 2300 | 2338 |      |      |      |      |      |      |      |      |      |      |      |       |       |
| BISB | 2314 | 2326 |      |      |      |      |      |      |      |      |      |      |      |       |       |
| BIT  | 313  | 317  | 321  | 325  | 329  | 356  | 360  | 366  | 370  | 376  | 380  | 386  | 390  | 396   | 400   |
|      | 406  | 410  | 416  | 420  | 426  | 430  | 436  | 440  | 446  | 450  | 456  | 460  | 466  | 470   | 476   |
|      | 480  | 486  | 490  | 496  | 500  | 508  | 512  | 516  | 520  | 524  | 542  | 546  | 551  | 555   | 560   |
|      | 564  | 569  | 573  | 578  | 582  | 587  | 591  | 596  | 600  | 605  | 609  | 614  | 618  | 623   | 627   |
|      | 632  | 636  | 641  | 645  | 650  | 654  | 659  | 663  | 668  | 672  | 677  | 681  | 689  | 694   | 700   |
|      | 705  | 711  | 716  | 722  | 727  | 733  | 738  | 744  | 749  | 758  | 763  | 768  | 773  | 780   | 785   |
|      | 790  | 795  | 802  | 807  | 812  | 817  | 824  | 829  | 834  | 839  | 846  | 851  | 856  | 861   | 868   |
|      | 873  | 878  | 883  | 890  | 895  | 900  | 905  | 912  | 917  | 922  | 927  | 934  | 939  | 944   | 949   |
|      | 956  | 961  | 966  | 971  | 978  | 983  | 988  | 993  | 1000 | 1005 | 1010 | 1015 | 1022 | 1027  | 1032  |
|      | 1037 | 1044 | 1049 | 1054 | 1059 | 1066 | 1071 | 1076 | 1081 | 1088 | 1093 | 1098 | 1103 | 1122  | 1127  |
|      | 1132 | 1137 | 1142 | 1158 | 1163 | 1168 | 1173 | 1178 | 1194 | 1199 | 1204 | 1209 | 1214 | 1230  | 1235  |
|      | 1240 | 1245 | 1250 | 1266 | 1271 | 1276 | 1281 | 1286 | 1302 | 1307 | 1312 | 1317 | 1322 | 1339  |       |
| BITB | 333  | 337  | 341  | 345  | 349  | 528  | 532  | 536  | 1110 | 1115 | 1147 | 1152 | 1183 | 1188  | 1219  |
|      | 1224 | 1255 | 1260 | 1291 | 1296 | 1327 | 1332 | 1344 | 1349 |      |      |      |      |       |       |
| BNE  | 509  | 513  | 517  | 521  | 525  | 529  | 533  | 537  | 543  | 547  | 552  | 556  | 561  | 565   | 570   |
|      | 574  | 579  | 583  | 588  | 592  | 597  | 601  | 606  | 610  | 615  | 619  | 624  | 628  | 633   | 637   |
|      | 642  | 646  | 651  | 655  | 660  | 664  | 669  | 673  | 678  | 682  | 1123 | 1128 | 1133 | 1138  | 1143  |
|      | 1148 | 1153 | 1159 | 1164 | 1169 | 1174 | 1179 | 1184 | 1189 | 1195 | 1200 | 1205 | 1210 | 1215  | 1220  |
|      | 1225 | 1231 | 1236 | 1241 | 1246 | 1251 | 1256 | 1261 | 1267 | 1272 | 1277 | 1282 | 1287 | 1292  | 1297  |
|      | 1303 | 1308 | 1313 | 1318 | 1323 | 1328 | 1333 | 1340 | 1345 | 1350 |      |      |      |       |       |
| BPL  | 2345 | 2348 |      |      |      |      |      |      |      |      |      |      |      |       |       |
| CLR  | 2349 |      |      |      |      |      |      |      |      |      |      |      |      |       |       |
| CMP  | 1356 | 1362 | 1368 | 1374 | 1381 | 1387 | 1393 | 1399 | 1406 | 1412 | 1418 | 1424 | 1431 | 1437  | 1443  |



MAIN. MACY11 27(732) 01-OCT-76 10:26 PAGE 60  
DOIA.P11 CROSS REFERENCE TABLE -- PERMANENT SYMBOLS

|        |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
|--------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
|        | 1449 | 1456 | 1462 | 1468 | 1474 | 1481 | 1487 | 1493 | 1499 | 1509 | 1515 | 1521 | 1527 | 1533 | 1539 |
|        | 1545 | 1551 | 1559 | 1565 | 1571 | 1577 | 1583 | 1589 | 1595 | 1601 | 1609 | 1615 | 1621 | 1627 | 1633 |
|        | 1639 | 1645 | 1651 | 1659 | 1665 | 1671 | 1677 | 1683 | 1689 | 1695 | 1701 | 1709 | 1715 | 1721 | 1727 |
|        | 1733 | 1739 | 1745 | 1751 | 1759 | 1765 | 1771 | 1777 | 1783 | 1789 | 1795 | 1801 | 1809 | 1815 | 1821 |
|        | 1827 | 1833 | 1839 | 1845 | 1851 | 1859 | 1865 | 1871 | 1877 | 1883 | 1889 | 1895 | 1901 | 1909 | 1915 |
|        | 1921 | 1927 | 1933 | 1939 | 1945 | 1951 | 1959 | 1965 | 1971 | 1977 | 1983 | 1989 | 1995 | 2001 | 2009 |
|        | 2015 | 2021 | 2027 | 2033 | 2039 | 2045 | 2051 | 2059 | 2065 | 2071 | 2077 | 2083 | 2089 | 2095 | 2101 |
|        | 2109 | 2115 | 2121 | 2127 | 2133 | 2139 | 2145 | 2151 | 2159 | 2165 | 2171 | 2177 | 2183 | 2189 | 2195 |
|        | 2201 | 2209 | 2215 | 2221 | 2227 | 2233 | 2239 | 2245 | 2251 | 2259 | 2265 | 2271 | 2277 | 2283 | 2289 |
|        | 2295 | 2301 | 2333 | 2339 |      |      |      |      |      |      |      |      |      |      |      |
| CMPB   | 2309 | 2315 | 2321 | 2327 |      |      |      |      |      |      |      |      |      |      |      |
| HALT   | 271  | 273  | 275  | 277  | 279  | 281  | 283  | 285  | 287  | 289  | 291  | 293  | 295  | 297  | 299  |
|        | 301  |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| INC    | 2344 |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| JMP    | 2350 |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| MOV    | 688  | 693  | 699  | 704  | 710  | 715  | 721  | 726  | 732  | 737  | 743  | 748  | 757  | 762  | 767  |
|        | 772  | 779  | 784  | 789  | 794  | 801  | 806  | 811  | 816  | 823  | 828  | 833  | 838  | 845  | 850  |
|        | 855  | 860  | 867  | 872  | 877  | 882  | 889  | 894  | 899  | 904  | 911  | 916  | 921  | 926  | 933  |
|        | 938  | 943  | 948  | 955  | 960  | 965  | 970  | 977  | 982  | 987  | 992  | 999  | 1004 | 1009 | 1014 |
|        | 1021 | 1026 | 1031 | 1036 | 1043 | 1048 | 1053 | 1058 | 1065 | 1070 | 1075 | 1080 | 1087 | 1092 | 1097 |
|        | 1102 | 1109 | 1114 | 1121 | 1126 | 1131 | 1136 | 1141 | 1146 | 1151 | 1157 | 1162 | 1167 | 1172 | 1177 |
|        | 1182 | 1187 | 1193 | 1198 | 1203 | 1208 | 1213 | 1218 | 1223 | 1229 | 1234 | 1239 | 1244 | 1249 | 1254 |
|        | 1259 | 1265 | 1270 | 1275 | 1280 | 1285 | 1290 | 1295 | 1301 | 1306 | 1311 | 1316 | 1321 | 1326 | 1331 |
|        | 1338 | 1343 | 1348 | 1354 | 1360 | 1366 | 1372 | 1379 | 1385 | 1391 | 1397 | 1404 | 1410 | 1416 | 1422 |
|        | 1429 | 1435 | 1441 | 1447 | 1454 | 1460 | 1466 | 1472 | 1479 | 1485 | 1491 | 1497 | 1507 | 1513 | 1519 |
|        | 1525 | 1531 | 1537 | 1543 | 1549 | 1557 | 1563 | 1569 | 1575 | 1581 | 1587 | 1593 | 1599 | 1607 | 1613 |
|        | 1619 | 1625 | 1631 | 1637 | 1643 | 1649 | 1657 | 1663 | 1669 | 1675 | 1681 | 1687 | 1693 | 1699 | 1707 |
|        | 1713 | 1719 | 1725 | 1731 | 1737 | 1743 | 1749 | 1757 | 1763 | 1769 | 1775 | 1781 | 1787 | 1793 | 1799 |
|        | 1807 | 1813 | 1819 | 1825 | 1831 | 1837 | 1843 | 1849 | 1857 | 1863 | 1869 | 1875 | 1881 | 1887 | 1893 |
|        | 1899 | 1907 | 1913 | 1919 | 1925 | 1931 | 1937 | 1943 | 1949 | 1957 | 1963 | 1969 | 1975 | 1981 | 1987 |
|        | 1993 | 1999 | 2007 | 2013 | 2019 | 2025 | 2031 | 2037 | 2043 | 2049 | 2057 | 2063 | 2069 | 2075 | 2081 |
|        | 2087 | 2093 | 2099 | 2107 | 2113 | 2119 | 2125 | 2131 | 2137 | 2143 | 2149 | 2157 | 2163 | 2169 | 2175 |
|        | 2181 | 2187 | 2193 | 2199 | 2207 | 2213 | 2219 | 2225 | 2231 | 2237 | 2243 | 2249 | 2257 | 2263 | 2269 |
|        | 2275 | 2281 | 2287 | 2293 | 2299 | 2331 | 2337 | 2346 |      |      |      |      |      |      |      |
| MOVB   | 2307 | 2313 | 2319 | 2325 |      |      |      |      |      |      |      |      |      |      |      |
| TSTB   | 2347 |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| .ENABL | 1    |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| .END   | 2354 |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| .LIST  | 1    |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| .MACR  | 304  | 305  | 306  | 307  | 308  | 309  | 310  |      |      |      |      |      |      |      |      |
| .MACRO | 1    |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| .NLIST | 1    |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| .REM   | 1    |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| .REPT  | 270  | 355  | 541  | 687  | 756  | 1120 | 1354 | 1507 |      |      |      |      |      |      |      |

ERRORS DETECTED: 0  
DEFAULT GLOBALS GENERATED: 0

\* DOIA.SEO/SOL/CRF/PAGNUM/NL:TOC=SYSMAC.CO,DOIA.P11  
RUN-TIME: 30 40 4 SECONDS  
RUN-TIME RATIO: 378/75=5.0  
CORE USED: 32K (63 PAGES)

Spooler runtime 9 Seconds, 40 KCS, 254 disk reads, 4 disk writes, 55 pages

[illegible]