```
08:12:06 test
                     MZ390 START USING z390 v1.8.0-41-q3861e20 ON J2SE 11.0.15 05/07/22
  AZ390I Copyright (c) 2021 z390 Assembler LLC
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AZ390I under certain conditions; see included LICENSE file for details.
   AZ390I program = /home/bill/Downloads/Computers/Emulators/Assembler390/z390/MyStuff/Test/test
   AZ390I options =
    sysmac(+/home/bill/Downloads/Computers/Emulators/Assembler390/z390/mac)
    syscpy(+/home/bill/Downloads/Computers/Emulators/Assembler390/z390/mac)
   External Symbol Definitions
   ESD=0001 LOC=00000000 LEN=00000118 TYPE=CST NAME=TEST
   Assembler Listing
                                               000000
  000000
                                               (1/2)2 *
   000000
                                               (1/3)3 * Change a string of Uppercase letters to lowercase
   000000
                                               (1/4)4 *
  000000
                                               (1/5)5 * By: Bill B
                                               (1/6)6 * On: 04/23/2022
   000000
                                               000000
  000000
                                               (1/8)8
                                                              TITLE 'Test'
   000000
                                               (1/9)9
                                                              PRINT NOGEN
                                                                                expand macros?
   000000
                                             (1/10)10 TEST
                                                              SUBENTRY
  000072
                                             (1/11)23 *
   LISTUSE TEST
                   ESD=0001 LOC=00000008 LEN=01000 REG=D OFF=00000 LAB=
   000072
                                             (1/12)24 *
                                                              Setup loop to lowercase a string
  000072 4150002B
                                             (1/13)25
                                                                   R5,L'STRING Length of STRING
   000076 4160D0D9
                                0000E1
                                             (1/14)26
                                                                   R6,STRING Address of STRING
                                                              LA
   00007A 4570D09E
                                                                   R7,LOWER
                                                                               Perform Lower
                                0000A6
                                             (1/15)27 INIT
                                                              \mathsf{BAL}
                                                                               Next position in STRING
  00007E 4A60D108
                                000110
                                             (1/16)28
                                                              AH
                                                                   R6,=H'1'
   000082 4650D072
                                00007A
                                             (1/17)29
                                                              BCT
                                                                   R5,INIT
                                                                               Decrement R5 then goto INIT until zero
   000086
                                             (1/18)30 *
                                                                    *
  000086
                          00000086
                                             (1/19)31 ENDRTN
                                                              EOU
   000086
                                                                    'BYE!'
                                             (1/20)32
                                                              WTO
   000094
                                             (1/21)38
                                                              SUBEXIT
  0000A6
                                             (1/22)45 *
   0000A6
                          000000A6
                                             (1/23)46 LOWER
                                                              EQU
   0000A6
                                             (1/24)47
                                                              WTO
                                                                    '%%%%%% Lower %%%%%%%'
  0000C6 95406000
                                             (1/25)53
                                                              CLI
                                                                   0(R6),X'40' Ignore spaces
   0000CA 0787
                                             (1/26)54
                                                              BER
                                                                   R7
   0000CC 94BF6000
                                             (1/27)55
                                                              NI
                                                                    0(R6),B'10111111'
  0000D0 07F7
                                             (1/28)56
                                                              BR
                                                                   R7
                                             (1/29)57 **************************
   0000D2
   0000D2
                                             (1/30)58 *
                                                              Data area
  0000D2
                                             (1/31)59 *****
   0000D8
                                             (1/32)60
                                                              DS
                                                                   0D
                                                                           Align on Doubleword.
   0000D8
                                             (1/33)61 DBLWRD
                                                              DS
                                                                   D
  0000E0
                                             (1/34)62 START
                                                              DS
                                                                   0Н
   0000E0 7B
                                             (1/35)63 CHAR
                                                              DC
                                                                   C'#'
   0000E1
                                             (1/36)64 *
                                                                    STRING contains all the letters of the alphabet
  0000E1 E3C8C540D8E4C9C3
                                             (1/37)65 STRING
                                                              DC
                                                                   C'THE QUICK BROWN FOX JUMPS OVER THE LAZY DOG'
                                                                   C'###'
   00010C 7B7B7B
                                             (1/38)66
                                                              DC
                                             (1/39)67 END
   000110
                                                              DS
                                                                    0Н
  000110
                                                              PRINT GEN
                                             (1/40)68 *
   000110
                                             (1/41)69
                                                              YREGS
   000110
                                             (1/42)87
                                                              END
                                                                   TEST
                          =H'1'
   000110 0001
```

```
LOC=000000D8 LEN=00000008 ESD=0001 TYPE=REL
 SYM=DBLWRD
                                                          XREF=61
SYM=END
             LOC=00000110 LEN=00000002 ESD=0001 TYPE=REL
                                                          XREF=67
SYM=ENDRTN
             LOC=00000086 LEN=00000001 ESD=0001 TYPE=REL XREF=31
 SYM=INIT
             LOC=0000007A LEN=00000004 ESD=0001 TYPE=REL XREF=27 29
SYM=LOWER
             LOC=000000A6 LEN=00000001 ESD=0001 TYPE=REL XREF=46 27
             LOC=00000000 LEN=00000001 ESD=0000 TYPE=ABS
                                                          XREF=70
 SYM=R0
 SYM=R10
             LOC=0000000A LEN=00000001 ESD=0000 TYPE=ABS
                                                          XREF=80
SYM=R1
             LOC=00000001 LEN=00000001 ESD=0000 TYPE=ABS
                                                          XREF=71
             LOC=0000000B LEN=00000001 ESD=0000 TYPE=ABS
SYM=R11
                                                          XREF=81
 SYM=R12
             LOC=0000000C LEN=00000001 ESD=0000 TYPE=ABS
                                                          XREF=82
SYM=R13
             LOC=0000000D LEN=00000001 ESD=0000 TYPE=ABS
                                                          XREF=83
 SYM=R14
             LOC=0000000E LEN=00000001 ESD=0000 TYPE=ABS
                                                          XREF=84
SYM=R15
             LOC=0000000F LEN=00000001 ESD=0000 TYPE=ABS
                                                          XREF=85
SYM=R2
             LOC=00000002 LEN=00000001 ESD=0000 TYPE=ABS
                                                         XREF=72
             LOC=00000003 LEN=00000001 ESD=0000 TYPE=ABS XREF=73
 SYM=R3
 SYM=R4
             LOC=00000004 LEN=00000001 ESD=0000 TYPE=ABS
                                                          XREF=74
             LOC=00000005 LEN=00000001 ESD=0000 TYPE=ABS
                                                          XREF=75 25 29
SYM=R5
 SYM=R6
             LOC=00000006 LEN=00000001 ESD=0000 TYPE=ABS
                                                          XREF=76 26 28 53 55
 SYM=R7
             LOC=00000007 LEN=00000001 ESD=0000 TYPE=ABS
                                                         XREF=77 27 54 56
SYM=R8
             LOC=00000008 LEN=00000001 ESD=0000 TYPE=ABS
                                                         XREF=78
SYM=R9
             LOC=00000009 LEN=00000001 ESD=0000 TYPE=ABS XREF=79
             LOC=000000E0 LEN=00000002 ESD=0001 TYPE=REL
 SYM=START
                                                          XREF=62
SYM=STRING
             LOC=000000E1 LEN=0000002B ESD=0001 TYPE=REL
                                                          XREF=65 25 26
 SYM=TEST
             LOC=00000000 LEN=00000118 ESD=0001 TYPE=CST XREF=11 21 87
 SYM=WTO#0002_EOT LOC=00000092 LEN=00000001 ESD=0001 TYPE=REL XREF=35 33 34
SYM=WTO#0004 EOT LOC=000000C3 LEN=00000001 ESD=0001 TYPE=REL XREF=50 48 49
Literal Table Listing
LIT=H'1'
             LOC=00000110 LEN=00000002 ESD=0001 POOL=0001 XREF=28
```

AZ390I total mnote warnings = 0 AZ390I total mnote errors = 0

= 0

= 0

MZ390 ENDED RC= 0 SEC= 0 MEM(MB)= 81 IO=564

AZ390I max mnote level
AZ390I total mz390 errors

AZ390I total az390 errors

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