```
 LOC  OBJECT CODE  ADDR1  ADDR2  STMT
                                    2 ************************************************************************
                                    3 *
                                    4 *        CU14 cross page boundary instruction tests
                                    5 *
                                    6 *        NOTE: This test is based the CLCL-et-al Test
                                    7 *              modified to only test the CU14 instruction.
                                    8 *
                                    9 *        James Wekel February 2024
                                   10 ************************************************************************


                                   12 ************************************************************************
                                   13 *
                                   14 *            CU14 cross page instruction tests
                                   15 *
                                   16 ************************************************************************
                                   17 *  This program tests functioning of the CU14 instruction
                                   18 *  across page boundaties. Only M3=0 is tested and CC=0 is expected.
                                   19 *  Specification exceptions are not tested.
                                   20 *
                                   21 *  PLEASE NOTE that the tests are very SIMPLE TESTS designed to catch
                                   22 *  obvious coding errors.  None of the tests are through.  They are
                                   23 *  NOT designed to test all aspects of any of the instructions.
                                   24 *
                                   25 ************************************************************************
                                   26 *
                                   27 *  Example Hercules Testcase:
                                   28 *
                                   29 *        *Testcase CU14-01-xpage (Test cross page CU14 instruction )
                                   30 *
                                   31 *        # ------------------------------------------------------------
                                   32 *        #  This tests only the function of the CU14 instruction where
                                   33 *        #  operands cross page boundaries.
                                   34 *        #  Specification Exceptions are NOT tested.
                                   35 *        # ------------------------------------------------------------
                                   36 *
                                   37 *        mainsize    16
                                   38 *        numcpu      1
                                   39 *        sysclear
                                   40 *        archlvl     z/Arch
                                   41 *
                                   42 *        loadcore    "$(testpath)/CU14-01-xpage.core" 0x0
                                   43 *
                                   44 *        runtest     2
                                   45 *
                                   46 *        *Done
                                   47 *
                                   48 ************************************************************************
```

```
  LOC        OBJECT CODE       ADDR1     ADDR2     STMT
                                                     50 ********************************************************************************
                                                     51 *
                                                     52 *               Low Core PSWs
                                                     53 *
                                                     54 ********************************************************************************


                               00000000  000006EF    56 CU14TST START 0
00000000                       00000000              57          USING CU14TST,R0            Low core addressability


00000000                       00000000  000001A0    59          ORG   CU14TST+X'1A0'       z/Architecure RESTART PSW
000001A0  00000001 80000000                          60          DC    X'0000000180000000'
000001A8  00000000 00000200                          61          DC    AD(BEGIN)


000001B0                       000001B0  000001D0    63          ORG   CU14TST+X'1D0'       z/Architecure PROGRAM CHECK PSW
000001D0  00020001 80000000                          64          DC    X'0002000180000000'
000001D8  00000000 0000DEAD                          65          DC    AD(X'DEAD')


000001E0                       000001E0  00000200    67          ORG   CU14TST+X'200'       Start of actual test program...
```

```
  LOC        OBJECT CODE       ADDR1     ADDR2     STMT

                                                     69 ********************************************************************************
                                                     70 *               The actual "CU14TST" program itself...
                                                     71 ********************************************************************************
                                                     72 *
                                                     73 *  Architecture Mode: z/Arch
                                                     74 *  Register Usage:
                                                     75 *
                                                     76 *   R0       interation count for current test
                                                     77 *   R1       current target address
                                                     78 *   R2       CU14 - First-Operand Address  - target
                                                     79 *   R3       CU14 - First-Operand Length
                                                     80 *   R4       CU14 - Second-Operand Address  - source
                                                     81 *   R5       CU14 - Second-Operand length
                                                     82 *   R6       (work)
                                                     83 *   R7       CU14CTL base
                                                     84 *   R8       First base register
                                                     85 *   R9       Second base register
                                                     86 *   R10-R13  (work) (copy source)
                                                     87 *   R14      Subroutine call
                                                     88 *   R15      Secondary Subroutine call or current source address
                                                     89 *
                                                     90 ********************************************************************************
00000200                        00000200             92          USING  BEGIN,R8        FIRST Base Register
00000200                        00001200             93          USING  BEGIN+4096,R9   SECOND Base Register

00000200  0580                                       95 BEGIN    BALR   R8,0            Initalize FIRST base register
00000202  0680                                       96          BCTR   R8,0            Initalize FIRST base register
00000204  0680                                       97          BCTR   R8,0            Initalize FIRST base register

00000206  4190 8800                    00000800      99          LA     R9,2048(,R8)    Initalize SECOND base register
0000020A  4190 9800                    00000800     100          LA     R9,2048(,R9)    Initalize SECOND base register
                                                    101 *
                                                    102 **       Run the tests...
                                                    103 *
0000020E  45E0 8302                    00000502     104          BAL    R14,TEST01      Test CU14   instruction
                                                    105 *
```

```
  LOC        OBJECT CODE       ADDR1     ADDR2     STMT
                                                    107 ************************************************************************
                                                    108 *         Test for normal or unexpected test completion...
                                                    109 ************************************************************************

00000212  9501 8200                       00000400  111          CLI   TESTNUM,X'01'    Did we end on expected test?
00000216  4770 83F0                       000005F0  112          BNE   FAILTEST         No?! Then FAIL the test!

0000021A  9504 8201                       00000401  114          CLI   SUBTEST,X'04'    Did we end on expected SUB-test?
0000021E  4770 83F0                       000005F0  115          BNE   FAILTEST         No?! Then FAIL the test!

00000222  47F0 83D8                       000005D8  117          B     EOJ              Yes, then normal completion!




                                                    119 ************************************************************************
                                                    120 *        Fixed test storage locations ...
                                                    121 ************************************************************************


00000226                        00000226  00000400  123          ORG   BEGIN+X'200'
                                                    124
00000400                                            125 TESTADDR DS    0D         Where test/subtest numbers will go
00000400  99                                        126 TESTNUM  DC    X'99'      Test number of active test
00000401  99                                        127 SUBTEST  DC    X'99'      Active test sub-test number

00000402                        00000402  00000502  129          ORG   *+X'100'
```

```
  LOC        OBJECT CODE       ADDR1     ADDR2     STMT
                                                    131 ********************************************************************************
                                                    132 *        TEST01                    Test CU14 instruction
                                                    133 ********************************************************************************

00000502  9201 8200                        00000400  135 TEST01   MVI   TESTNUM,X'01'
                                                    136
00000506  4170 83F8                        000005F8  137          LA    R7,CU14CTL          Point R7 --> testing control table
0000050A                         00000000           138          USING CU14TEST,R7         What each table entry looks like
                                                    139
                                 0000050A  00000001  140 TST1LOOP EQU   *
0000050A  4360 7000                        00000000  141          IC    R6,TNUM             Set test number
0000050E  4260 8200                        00000400  142          STC   R6,TESTNUM
                                                    143
00000512  5800 7010                        00000010  144          L     R0,OP2LEN           source length
                                                    145 *
00000516  58F0 7014                        00000014  146          L     R15,OP1WHERE        Calculate Target address
0000051A  1BF0                                      147          SR    R15,R0
0000051C  41F0 F001                        00000001  148          LA    R15,1(,R15)
                                                    149 *
00000520  5810 7018                        00000018  150          L     R1,OP2WHERE          Calculate source address
00000524  1B10                                      151          SR    R1,R0
00000526  4110 1001                        00000001  152          LA    R1,1(,R1)
                                                    153 *
                                                    154 **       Initialize source operand data (move data to testing address)
                                                    155 *
                                 0000052A  00000001  156 TST1INIT EQU   *
                                                    157 *                                  Source
0000052A  18A1                                      158          LR    R10,R1              Where to move operand-2 data to
0000052C  58B0 7010                        00000010 159          L     R11,OP2LEN            How much of it there is
00000530  58C0 700C                        0000000C 160          L     R12,OP2DATA         Where op2 data is right now
00000534  58D0 7010                        00000010 161          L     R13,OP2LEN            How much of it there is
00000538  0EAC                                      162          MVCL  R10,R12
                                                    163

                                                    165 *       Execute CU14 instruction and check for expected condition code

0000053A  182F                                      167          LR    R2,R15               Target
0000053C  5830 7008                        00000008 168          L     R3,OP1LEN               target length
00000540  1841                                      169          LR    R4,R1               source
00000542  5850 7010                        00000010 170          L     R5,OP2LEN               source length
                                                    171
00000546  1B66                                      172          SR    R6,R6              get M3 bits for CU14
00000548  4360 7003                        00000003 173          IC    R6,M3              (M3)
0000054C  4260 835E                        0000055E 174          STC   R6,CU14MOD+2       DYNAMICALLY MODIFIED CODE
                                                    175
00000550  58B0 701C                        0000001C 176          L     R11,FAILMASK       (failure CC)
00000554  89B0 0004                        00000004 177          SLL   R11,4              (shift to BC instr CC position)
                                                    178
00000558  9200 8201                        00000401 179          MVI   SUBTEST,X'00'      (primary CU14)
0000055C  B9B0 0024                                 180 CU14MOD  CU14  R2,R4              Start with CU14 and m3=0
00000560  4710 835C                        0000055C 181          BC    B'0001',CU14MOD     cc=3, not finished
                                                    182
00000564  44B0 83C4                        000005C4 183          EX    R11,CU14BC         fail if...
```

```
  LOC        OBJECT CODE       ADDR1     ADDR2    STMT
                                                    185 **       Verify R3,R5  contain (or still contain!) expected values
00000568  9201 8201                      00000401   186          MVI   SUBTEST,X'01'      (R3 result - TARGET remaining len)
0000056C  5930 7020                      00000020   187          C     R3,ENDLN1             R3 correct?
00000570  4770 83BE                      000005BE   188          BNE   CU14FAIL           No, FAILTEST!
                                                    189
00000574  9202 8201                      00000401   190          MVI   SUBTEST,X'02'      (R5 result - SOURCE remaining len)
00000578  5950 7024                      00000024   191          C     R5,ENDLN2             R5 correct
0000057C  4770 83BE                      000005BE   192          BNE   CU14FAIL           No, FAILTEST!
                                                    193
00000580  9203 8201                      00000401   194          MVI   SUBTEST,X'03'      (TARGET IS CORRECT?)
00000584  182F                                      195          LR    R2,R15             conversion result
00000586  5830 7008                      00000008   196          L     R3,OP1LEN
0000058A  5840 7004                      00000004   197          L     R4,OP1DATA         expected result
0000058E  5850 7008                      00000008   198          L     R5,OP1LEN
00000592  0F24                                      199          CLCL  R2,R4
00000594  4710 8390                      00000590   200          BC    B'0001',*-4          not finished?
00000598  4770 83BE                      000005BE   201          BNE   CU14FAIL          No, FAILTEST!
                                                    202 *
                                                    203 *        shift source/target addresses and try again to
                                                    204 *        ensure multiple cross pabe bounday tests
                                                    205 *
0000059C  4110 1001                      00000001   206          LA    R1,1(,R1)
000005A0  41F0 F001                      00000001   207          LA    R15,1(,R15)
000005A4  4600 832A                      0000052A   208          BCT   R0,TST1INIT
                                                    209
000005A8  4170 7028                      00000028   210          LA    R7,CU14NEXT        Go on to next table entry
000005AC  D503 83F4 7000      000005F4   00000000   211          CLC   =F'0',0(R7)        End of table?
000005B2  4770 830A                      0000050A   212          BNE   TST1LOOP           No, loop...
                                                    213
000005B6  9204 8201                      00000401   214          MVI   SUBTEST,X'04'       Done
000005BA  47F0 83C2                      000005C2   215          B     CU14DONE            Done! (success!)


000005BE  41E0 83F0                      000005F0   217 CU14FAIL LA    R14,FAILTEST       Unexpected results!
000005C2  07FE                                      218 CU14DONE BR    R14                Return to caller or FAILTEST


000005C4  4700 83BE                      000005BE   220 CU14BC   BC    0,CU14FAIL          (fail if unexpected condition code)


000005C8                                            222          DROP  R7
000005C8                      00000200              223          USING BEGIN,R8
```

```
  LOC        OBJECT CODE       ADDR1     ADDR2     STMT
                                                    225 ************************************************************************
                                                    226 *        Normal completion or Abnormal termination PSWs
                                                    227 ************************************************************************

000005C8  00020001 80000000                         229 EOJPSW   DC    0D'0',X'0002000180000000',AD(0)
000005D8  B2B2 83C8                 000005C8        231 EOJ      LPSWE EOJPSW               Normal completion

000005E0  00020001 80000000                         233 FAILPSW  DC    0D'0',X'0002000180000000',AD(X'BAD')
000005F0  B2B2 83E0                 000005E0        235 FAILTEST LPSWE FAILPSW              Abnormal termination

                                                    237 ************************************************************************
                                                    238 *        Working Storage
                                                    239 ************************************************************************

000005F4                                            241          LTORG ,                    Literals pool
000005F4  00000000                                  242                =F'0'

                            00000400  00000001      244 K        EQU   1024                 One KB
                            00001000  00000001      245 PAGE     EQU   (4*K)                Size of one page
                            00004000  00000001      246 K16      EQU   (16*K)               16 KB
                            00008000  00000001      247 K32      EQU   (32*K)               32 KB
                            00010000  00000001      248 K64      EQU   (64*K)               64 KB
                            00100000  00000001      249 MB       EQU   (K*K)                 1 MB
```

```
  LOC        OBJECT CODE       ADDR1     ADDR2     STMT
                               00000000  000006EF   251 CU14TST CSECT  ,

                                                    253 ********************************************************************************
                                                    254 *        CU14TEST DSECT
                                                    255 ********************************************************************************


                                                    257 CU14TEST DSECT ,
00000000  00                                        258 TNUM     DC    X'00'          CU14 test number
00000001  00                                        259          DC    X'00'
00000002  00                                        260          DC    X'00'
00000003  00                                        261 M3       DC    X'00'          M3 byte stored into CU14 instruction


                                                    263
00000004  00000000                                  264 OP1DATA  DC    A(0)           Pointer to Operand 1       - result
00000008  00000000                                  265 OP1LEN   DC    F'0'             length                   - result
0000000C  00000000                                  266 OP2DATA  DC    A(0)           Pointer to Operand-2 data  - source
00000010  00000000                                  267 OP2LEN   DC    F'0'             length                   - source


                               00000014  00000001   269 OPSWHERE EQU   *
00000014  00000000                                  270 OP1WHERE DC    A(0)           result - Where should be placed
00000018  00000000                                  271 OP2WHERE DC    A(0)           source - Where should be placed


0000001C  00000000                                  273 FAILMASK DC    A(0)           Failure Branch on Condition mask


                                                    275 *                             Ending register values
00000020  00000000                                  276 ENDLN1   DC    A(0)              target length
00000024  00000000                                  277 ENDLN2   DC    A(0)              source length
                                                    278


                              00000028  00000001   280 CU14NEXT EQU   *              Start of next table entry...
```

```
  LOC        OBJECT CODE       ADDR1     ADDR2     STMT

                               00000000  000006EF   283 CU14TST CSECT  ,

                                                    285 ********************************************************************
                                                    286 *        CU14 Testing Control tables   (ref: CU14TEST DSECT)
                                                    287 ********************************************************************
                                                    288          PRINT DATA
000005F8                                            289 CU14CTL  DC    0A(0)    start of table
                                                    290 ********************************************************************
                                                    291 *        tests with CC=0 M3=0
                                                    292 ********************************************************************


000005F8                                            294 CC0T1    DS    0F
000005F8  01                                        295          DC    X'01'                        Test Num
000005F9  0000                                      296          DC    X'00',X'00'
000005FB  00                                        297          DC    X'00'                        M3
                                                    298 *
000005FC  00000680 00000070                         299          DC    A(UTF32A),A(UTF32AED-UTF32A)   target - Op1 & length
00000604  00000638 0000003D                         300          DC    A(UTF8A),A(UTF8AEND-UTF8A)     Source - Op2 & length
                                                    301
0000060C  00100000                                  302          DC    A(1*MB+(0*K16))                target
00000610  00200000                                  303          DC    A(2*MB+(0*K16))                source
                                                    304 *
00000614  00000007                                  305          DC    A(7)                           FailCC - not CC0
00000618  00000000                                  306          DC    A(0)                           Result - target len
0000061C  00000000                                  307          DC    A(0)                           Result - source len


00000620  00000000                                  309          DC    A(0)     end of table
00000624  00000000                                  310          DC    A(0)     end of table
00000628  00000000                                  311          DC    A(0)     end of table
                                                    312
```

```
  LOC        OBJECT CODE       ADDR1     ADDR2     STMT
                                                    314 ************************************************************************
                                                    315 *        CU14  UTF-8 test data
                                                    316 ************************************************************************

0000062C  E4E3C6F8 7A4040                           318          DC    C'UTF8:  '                  eye catcher
00000634  0000003D                                  319 UTF8ALN  DC    A(UTF8AEND-UTF8A)
00000638                                            320 UTF8A    DS    0H
00000638  00                                        321          DC    XL1'00'  first UTF-8 1 Byte character
00000639  31                                        322          DC    XL1'31'  1
0000063A  39                                        323          DC    XL1'39'  9
0000063B  40                                        324          DC    XL1'40'  @
0000063C  41                                        325          DC    XL1'41'  A
0000063D  42                                        326          DC    XL1'42'  B
0000063E  7F                                        327          DC    XL1'7F'  last UTF-8 1 Byte character

0000063F  C280                                      329          DC    XL2'C280'  first UTF-8 2 Byte character
00000641  C380                                      330          DC    XL2'C380'  c3 80 LATIN CAPITAL LETTER A WITH GRAVE
00000643  C3B8                                      331          DC    XL2'C3B8'  c3 b8 LATIN SMALL LETTER O WITH STROKE
00000645  D09C                                      332          DC    XL2'D09C'  D0 9C Ðœ Cyrillic Capital Letter Em
00000647  DFBF                                      333          DC    XL2'DFBF'  last UTF-8 2 Byte character DF BF ß¿

00000649  43                                        335          DC    XL1'43'  C

0000064A  E0A080                                    337          DC    XL3'E0A080'  first UTF-8 3 Byte character
                                                    338 *                           E0 A0 80 à € Samaritan Letter Alaf
0000064D  E0A18D                                    339          DC    XL3'E0A18D'  E0 A1 8D à¡• Mandaic Letter An
00000650  EA9FBD                                    340          DC    XL3'EA9FBD'  EA 9F BD êŸ½ Latin Epigraphic Inverted M
00000653  EFBF87                                    341          DC    XL3'EFbf87'  EF BF 87 ï¿‡ Halfwidth Hangul Letter E
00000656  EFBFBF                                    342          DC    XL3'EFBFBF'  last UTF-8 3 Byte character EF BF BF

00000659  44                                        344          DC    XL1'44'  D

0000065A  F0908080                                  346          DC    XL4'F0908080'  first UTF-8 4 Byte character
                                                    347 *                             F0 90 80 80 ð•€€ Linear B Syllable B008 A
0000065E  F0908487                                  348          DC    XL4'F0908487' F0 90 84 87 ð•„‡ Aegean Number One
00000662  F09294B5                                  349          DC    XL4'F09294B5' F0 92 94 B5 Cuneiform Sign She Plus Sar
00000666  F09082B8                                  350          DC    XL4'F09082B8'  F0 90 82 B8 ð•‚¸ Linear B Ideogram B177
0000066A  F096AB83                                  351          DC    XL4'F096AB83'  F0 96 A8 83 ð–¨ƒ Bamum Letter Phase-f Ka
0000066E  F0989A9F                                  352          DC    XL4'F0989A9F'  last UTF-8 4 Byte character

00000672  45                                        354          DC    XL1'45'  E
00000673  4E                                        355          DC    XL1'4E'  N
00000674  44                                        356          DC    XL1'44'  D
00000675                                            357 UTF8AEND DS    0X
```

```
  LOC        OBJECT CODE       ADDR1     ADDR2     STMT
                                                    359 ********************************************************************************
                                                    360 *        CU14  UTF-32 Result
                                                    361 ********************************************************************************
00000675  E4E3C6F3 F27A40                           362          DC    C'UTF32: '                 eye catcher
0000067C  00000070                                  363 UTF32ALN DC    A(UTF32AED-UTF32A)
00000680                                            364 UTF32A   DC    0X
00000680  00000000                                  365          DC    X'00000000'
00000684  00000031                                  366          DC    X'00000031'
00000688  00000039                                  367          DC    X'00000039'
0000068C  00000040                                  368          DC    X'00000040'
00000690  00000041                                  369          DC    X'00000041'
00000694  00000042                                  370          DC    X'00000042'
00000698  0000007F                                  371          DC    X'0000007F'
0000069C  00000080                                  372          DC    X'00000080'
000006A0  000000C0                                  373          DC    X'000000C0'
000006A4  000000F8                                  374          DC    X'000000F8'
000006A8  0000041C                                  375          DC    X'0000041C'
000006AC  000007FF                                  376          DC    X'000007FF'
000006B0  00000043                                  377          DC    X'00000043'
000006B4  00000800                                  378          DC    X'00000800'
000006B8  0000084D                                  379          DC    X'0000084D'
000006BC  0000A7FD                                  380          DC    X'0000A7FD'
000006C0  0000FFC7                                  381          DC    X'0000FFC7'
000006C4  0000FFFF                                  382          DC    X'0000FFFF'
000006C8  00000044                                  383          DC    X'00000044'
000006CC  00010000                                  384          DC    X'00010000'
000006D0  00010107                                  385          DC    X'00010107'
000006D4  00012535                                  386          DC    X'00012535'
000006D8  000100B8                                  387          DC    X'000100B8'
000006DC  00016AC3                                  388          DC    X'00016AC3'
000006E0  0001869F                                  389          DC    X'0001869F'
000006E4  00000045                                  390          DC    X'00000045'
000006E8  0000004E                                  391          DC    X'0000004E'
000006EC  00000044                                  392          DC    X'00000044'
000006F0                                            393 UTF32AED DS    0X
                                                    394
```

```
 LOC        OBJECT CODE       ADDR1     ADDR2     STMT

                                          396 ********************************************************************************
                                          397 *        Register equates
                                          398 ********************************************************************************


                             00000000  00000001   400 R0       EQU   0
                             00000001  00000001   401 R1       EQU   1
                             00000002  00000001   402 R2       EQU   2
                             00000003  00000001   403 R3       EQU   3
                             00000004  00000001   404 R4       EQU   4
                             00000005  00000001   405 R5       EQU   5
                             00000006  00000001   406 R6       EQU   6
                             00000007  00000001   407 R7       EQU   7
                             00000008  00000001   408 R8       EQU   8
                             00000009  00000001   409 R9       EQU   9
                             0000000A  00000001   410 R10      EQU   10
                             0000000B  00000001   411 R11      EQU   11
                             0000000C  00000001   412 R12      EQU   12
                             0000000D  00000001   413 R13      EQU   13
                             0000000E  00000001   414 R14      EQU   14
                             0000000F  00000001   415 R15      EQU   15


                                          417          END
```

SYMBOL	TYPE	VALUE	LENGTH	DEFN	REFERENCES
BEGIN	I	000200	2	95	123 61 92 93 223
CC0T1	F	0005F8	4	294	
CU14BC	I	0005C4	4	220	183
CU14CTL	A	0005F8	4	289	137
CU14DONE	I	0005C2	2	218	215
CU14FAIL	I	0005BE	4	217	188 192 201 220
CU14MOD	I	00055C	4	180	174 181
CU14NEXT	U	000028	1	280	210
CU14TEST	4	000000	40	257	138
CU14TST	J	000000	1776	56	59 63 67 57
ENDLN1	A	000020	4	276	187
ENDLN2	A	000024	4	277	191
EOJ	I	0005D8	4	231	117
EOJPSW	D	0005C8	8	229	231
FAILMASK	A	00001C	4	273	176
FAILPSW	D	0005E0	8	233	235
FAILTEST	I	0005F0	4	235	112 115 217
IMAGE	1	000000	1776	0	
K	U	000400	1	244	245 246 247 248 249
K16	U	004000	1	246	302 303
K32	U	008000	1	247	
K64	U	010000	1	248	
M3	X	000003	1	261	173
MB	U	100000	1	249	302 303
OP1DATA	A	000004	4	264	197
OP1LEN	F	000008	4	265	168 196 198
OP1WHERE	A	000014	4	270	146
OP2DATA	A	00000C	4	266	160
OP2LEN	F	000010	4	267	144 159 161 170
OP2WHERE	A	000018	4	271	150
OPSWHERE	U	000014	1	269	
PAGE	U	001000	1	245	
R0	U	000000	1	400	57 144 147 151 208
R1	U	000001	1	401	150 151 152 158 169 206
R10	U	00000A	1	410	158 162
R11	U	00000B	1	411	159 176 177 183
R12	U	00000C	1	412	160 162
R13	U	00000D	1	413	161
R14	U	00000E	1	414	104 217 218
R15	U	00000F	1	415	146 147 148 167 195 207
R2	U	000002	1	402	167 180 195 199
R3	U	000003	1	403	168 187 196
R4	U	000004	1	404	169 180 197 199
R5	U	000005	1	405	170 191 198
R6	U	000006	1	406	141 142 172 173 174
R7	U	000007	1	407	137 138 210 211 222
R8	U	000008	1	408	92 95 96 97 99 223
R9	U	000009	1	409	93 99 100
SUBTEST	X	000401	1	127	114 179 186 190 194 214
TEST01	I	000502	4	135	104
TESTADDR	D	000400	8	125	
TESTNUM	X	000400	1	126	111 135 142
TNUM	X	000000	1	258	141
TST1INIT	U	00052A	1	156	208
TST1LOOP	U	00050A	1	140	212
UTF32A	X	000680	1	364	299 363

SYMBOL	TYPE	VALUE	LENGTH	DEFN	REFERENCES
UTF32AED	X	0006F0	1	393	299 363
UTF32ALN	A	00067C	4	363	
UTF8A	H	000638	2	320	300 319
UTF8AEND	X	000675	1	357	300 319
UTF8ALN	A	000634	4	319	
=F'0'	F	0005F4	4	242	211

MACRO DEFN REFERENCES

No defined macros

```
   DESC      SYMBOL   SIZE    POS      ADDR

Entry: 0

Image       IMAGE    1776  000-6EF  000-6EF
  Region             1776  000-6EF  000-6EF
    CSECT   CU14TST  1776  000-6EF  000-6EF
```

```
   STMT               FILE NAME
1     /devstor/dev/tests/CU14-01-xpage.asm

** NO ERRORS FOUND **
```