```
  LOC         OBJECT CODE       ADDR1     ADDR2     STMT
                                                        2 ************************************************************************
                                                        3 *
                                                        4 *        Zvector E6 instruction tests for VRR-i encoded:
                                                        5 *
                                                        6 *        E650 VCVB    - VECTOR CONVERT TO BINARY  (32)
                                                        7 *        E652 VCVBG   - VECTOR CONVERT TO BINARY  (64)
                                                        8 *
                                                        9 *        James Wekel June 2024
                                                       10 ************************************************************************
                                                       11
                                                       12 ************************************************************************
                                                       13 *
                                                       14 *        basic instruction tests
                                                       15 *
                                                       16 ************************************************************************
                                                       17 *  This program tests proper functioning of the z/arch E6 VRR-i vector
                                                       18 *  convert to binary instructions. Exceptions are not tested.
                                                       19 *
                                                       20 *  PLEASE NOTE that the tests are very SIMPLE TESTS designed to catch
                                                       21 *  obvious coding errors.  None of the tests are thorough.  They are
                                                       22 *  NOT designed to test all aspects of any of the instructions.
                                                       23 *
                                                       24 ************************************************************************
                                                       25 *
                                                       26 *   *Testcase zvector-e6-11-convertbinary: VECTOR E6 VRR-i instruction
                                                       27 *   *
                                                       28 *   *   Zvector E6 tests for VRR-i encoded instruction:
                                                       29 *   *
                                                       30 *   *   E650 VCVB    - VECTOR CONVERT TO BINARY  (32)
                                                       31 *   *   E652 VCVBG   - VECTOR CONVERT TO BINARY  (64)
                                                       32 *   *
                                                       33 *   *   # ---------------------------------------------------
                                                       34 *   *   #  This tests only the basic function of the instruction.
                                                       35 *   *   #  Exceptions are NOT tested.
                                                       36 *   *   # ---------------------------------------------------
                                                       37 *   *
                                                       38 *   mainsize    2
                                                       39 *   numcpu      1
                                                       40 *   sysclear
                                                       41 *   archlvl     z/Arch
                                                       42 *
                                                       43 *   diag8cmd    enable    # (needed for messages to Hercules console)
                                                       44 *   loadcore    "$(testpath)/zvector-e6-11-convertbinary.core" 0x0
                                                       45 *   diag8cmd    disable   # (reset back to default)
                                                       46 *
                                                       47 *   *Done
                                                       48 ************************************************************************

                          00000000  00002227     50 ZVE6TST  START 0
00000000                  00000000                 51          USING ZVE6TST,R0            Low core addressability
                                                   52
                          00000140  00000000     53 SVOLDPSW EQU   ZVE6TST+X'140'        z/Arch Supervisor call old PSW

00000000                  00000000  000001A0     55          ORG   ZVE6TST+X'1A0'        z/Architecure RESTART PSW
```

```
  LOC         OBJECT CODE       ADDR1     ADDR2     STMT
000001A0  00000001 80000000                           56          DC    X'0000000180000000'
000001A8  00000000 00000200                           57          DC    AD(BEGIN)

000001B0                      000001B0  000001D0      59          ORG   ZVE6TST+X'1D0'        z/Architecure PROGRAM CHECK PSW
000001D0  00020001 80000000                           60          DC    X'0002000180000000'
000001D8  00000000 0000DEAD                           61          DC    AD(X'DEAD')

000001E0                      000001E0  00000200      63          ORG   ZVE6TST+X'200'        Start of actual test program...
                                                      64
```

```
  LOC        OBJECT CODE       ADDR1     ADDR2     STMT

                                                      66 ************************************************************************
                                                      67 *               The actual "ZVE6TST" program itself...
                                                      68 ************************************************************************
                                                      69 *
                                                      70 *  Architecture Mode: z/Arch
                                                      71 *  Register Usage:
                                                      72 *
                                                      73 *   R0       (work)
                                                      74 *   R1-4     (work)
                                                      75 *   R5       Testing control table - current test base
                                                      76 *   R6-R7    (work)
                                                      77 *   R8       First base register
                                                      78 *   R9       Second base register
                                                      79 *   R10      Third base register
                                                      80 *   R11      E6TEST call return
                                                      81 *   R12      E6TESTS register
                                                      82 *   R13      (work)
                                                      83 *   R14      Subroutine call
                                                      84 *   R15      Secondary Subroutine call or work
                                                      85 *
                                                      86 ************************************************************************

00000200                          00000200            88          USING  BEGIN,R8        FIRST Base Register
00000200                          00001200            89          USING  BEGIN+4096,R9   SECOND Base Register

00000200  0580                                        91 BEGIN    BALR  R8,0             Initalize FIRST base register
00000202  0680                                        92          BCTR  R8,0             Initalize FIRST base register
00000204  0680                                        93          BCTR  R8,0             Initalize FIRST base register

00000206  4190 8800                       00000800    95          LA    R9,2048(,R8)     Initalize SECOND base register
0000020A  4190 9800                       00000800    96          LA    R9,2048(,R9)     Initalize SECOND base register

0000020E  41A0 9800                       00000800    98          LA    R10,2048(,R9)    Initalize THIRD base register
00000212  41A0 A800                       00000800    99          LA    R10,2048(,R10)   Initalize THIRD base register
                                                     100
00000216  B600 8284                       00000484   101          STCTL R0,R0,CTLR0      Store CR0 to enable AFP
0000021A  9604 8285                       00000485   102          OI    CTLR0+1,X'04'    Turn on AFP bit
0000021E  9602 8285                       00000485   103          OI    CTLR0+1,X'02'    Turn on Vector bit
00000222  B700 8284                       00000484   104          LCTL  R0,R0,CTLR0      Reload updated CR0
```

```
  LOC        OBJECT CODE       ADDR1     ADDR2     STMT
                                                    106 ********************************************************************************
                                                    107 *               Do tests in the E6TESTS table
                                                    108 ********************************************************************************
                                                    109
00000226  58C0 828C                      0000048C  110           L     R12,E6TADR       get table of test addresses
                                                    111
                               0000022A   00000001  112 NEXTE6    EQU   *
0000022A  5850 C000                      00000000  113           L     R5,0(0,R12)       get test address
0000022E  1255                                     114           LTR   R5,R5                have a test?
00000230  4780 815A                      0000035A  115           BZ    ENDTEST                 done?
                                                    116
00000234  B982 0000                                117           XGR   R0,R0              no cc error
                                                    118
00000238                       00000000            119           USING E6TEST,R5
                                                    120
00000238  4800 5004                      00000004  121           LH    R0,TNUM            save current test number
0000023C  5000 8E04                      00001004  122           ST    R0,TESTING         for easy reference
                                                    123
00000240  58B0 5000                      00000000  124           L     R11,TSUB           get address of test routine
00000244  05BB                                     125           BALR  R11,R11            do test
                                                    126
00000246  E310 5009 0076                 00000009  127           LB    R1,CCMASK          (failure CC mask)
0000024C  8910 0004                      00000004  128           SLL   R1,4               (shift to BC instr CC position)
00000250  4410 806C                      0000026C  129           EX    R1,TESTCC             fail if...
                                                    130
                               00000254   00000001  131 TESTREST EQU   *
00000254  E310 5018 0014                 00000018  132           LGF   R1,READDR          get address of expected result
0000025A  D507 8F20 1000       00001120  00000000  133           CLC   R1OUTPUT,0(R1)     valid?
00000260  4770 8100                      00000300  134           BNE   FAILMSG               no, issue failed message
                                                    135
00000264  41C0 C004                      00000004  136           LA    R12,4(0,R12)       next test address
00000268  47F0 802A                      0000022A  137           B     NEXTE6
                                                    138
0000026C  4700 8070                      00000270  139 TESTCC    BC    0,CCMSG          (fail if unexpected condition code)
                                                    140
```

```
  LOC        OBJECT CODE       ADDR1     ADDR2     STMT
                                                    142 ********************************************************************************
                                                    143 * cc was not as expected
                                                    144 ********************************************************************************
                                 00000270  00000001  145 CCMSG    EQU   *
00000270  E310 0001 0082                   00000001  146          XG    R1,R1
00000276  E310 5007 0076                   00000007  147          LB    R1,M3           m3 has CS bit
0000027C  5410 8290                        00000490  148          N     R1,=F'1'        get CS (CC set) bit
00000280  4780 8054                        00000254  149          BZ    TESTREST           ignore if not set
                                                    150 *
                                                    151 * extract CC extracted PSW
                                                    152 *
00000284  5810 8ED8                        000010D8  153          L     R1,CCPSW
00000288  8810 000C                        0000000C  154          SRL   R1,12
0000028C  5410 8294                        00000494  155          N     R1,=XL4'3'
00000290  4210 8EE0                        000010E0  156          STC   R1,CCFOUND      save cc
                                                    157 *
                                                    158 * FILL IN MESSAGE
                                                    159 *
00000294  4820 5004                        00000004  160          LH    R2,TNUM                  get test number and convert
00000298  4E20 8EC8                        000010C8  161          CVD   R2,DECNUM
0000029C  D211 8EB2 8E9C       000010B2    0000109C  162          MVC   PRT3,EDIT
000002A2  DE11 8EB2 8EC8       000010B2    000010C8  163          ED    PRT3,DECNUM
000002A8  D202 8E57 8EBF       00001057    000010BF  164          MVC   CCPRTNUM(3),PRT3+13      fill in message with test #
                                                    165
000002AE  D207 8E74 500A       00001074    0000000A  166          MVC   CCPRTNAME,OPNAME         fill in message with instruction
                                                    167
000002B4  B982 0022                                 168          XGR   R2,R2                    get CC as U8
000002B8  4320 5008                        00000008  169          IC    R2,CC
000002BC  4E20 8EC8                        000010C8  170          CVD   R2,DECNUM                and convert
000002C0  D211 8EB2 8E9C       000010B2    0000109C  171          MVC   PRT3,EDIT
000002C6  DE11 8EB2 8EC8       000010B2    000010C8  172          ED    PRT3,DECNUM
000002CC  D200 8E8A 8EC1       0000108A    000010C1  173          MVC   CCPRTEXP(1),PRT3+15      fill in message with CC field
                                                    174
000002D2  B982 0022                                 175          XGR   R2,R2                    get CCFOUND as U8
000002D6  4320 8EE0                        000010E0  176          IC    R2,CCFOUND
000002DA  4E20 8EC8                        000010C8  177          CVD   R2,DECNUM                and convert
000002DE  D211 8EB2 8E9C       000010B2    0000109C  178          MVC   PRT3,EDIT
000002E4  DE11 8EB2 8EC8       000010B2    000010C8  179          ED    PRT3,DECNUM
000002EA  D200 8E9A 8EC1       0000109A    000010C1  180          MVC   CCPRTGOT(1),PRT3+15     fill in message with ccfound
                                                    181
000002F0  4100 0055                        00000055  182          LA    R0,CCPRTLNG              message length
000002F4  4110 8E47                        00001047  183          LA    R1,CCPRTLINE             messagfe address
000002F8  45F0 8168                        00000368  184          BAL   R15,RPTERROR
                                                    185
000002FC  47F0 814A                        0000034A  186          B     FAILCONT
```

```
  LOC        OBJECT CODE       ADDR1     ADDR2     STMT
                                                    188 ************************************************************************
                                                    189 * result not as expected:
                                                    190 *        issue message with test number, instruction under test
                                                    191 *              and instruction l2
                                                    192 ************************************************************************
                               00000300  00000001   193 FAILMSG  EQU   *
00000300  4820 5004                      00000004   194          LH    R2,TNUM              get test number and convert
00000304  4E20 8EC8                      000010C8   195          CVD   R2,DECNUM
00000308  D211 8EB2 8E9C       000010B2  0000109C   196          MVC   PRT3,EDIT
0000030E  DE11 8EB2 8EC8       000010B2  000010C8   197          ED    PRT3,DECNUM
00000314  D202 8E18 8EBF       00001018  000010BF   198          MVC   PRTNUM(3),PRT3+13    fill in message with test #
                                                    199
0000031A  D207 8E33 500A       00001033  0000000A   200          MVC   PRTNAME,OPNAME       fill in message with instruction
                                                    201
00000320  B982 0022                                 202          XGR   R2,R2                get M3 as U8
00000324  4320 5007                      00000007   203          IC    R2,M3                and convert
00000328  4E20 8EC8                      000010C8   204          CVD   R2,DECNUM
0000032C  D211 8EB2 8E9C       000010B2  0000109C   205          MVC   PRT3,EDIT
00000332  DE11 8EB2 8EC8       000010B2  000010C8   206          ED    PRT3,DECNUM
00000338  D201 8E44 8EC0       00001044  000010C0   207          MVC   PRTM3(2),PRT3+14     fill in message with m3 field
                                                    208
0000033E  4100 003F                      0000003F   209          LA    R0,PRTLNG            message length
00000342  4110 8E08                      00001008   210          LA    R1,PRTLINE           messagfe address
00000346  45F0 8168                      00000368   211          BAL   R15,RPTERROR
```

```
                                                    213 ************************************************************************
                                                    214 * continue after a failed test
                                                    215 ************************************************************************
                               0000034A  00000001   216 FAILCONT EQU   *
0000034A  5800 8290                      00000490   217          L     R0,=F'1'             set GLOBAL failed test indicator
0000034E  5000 8E00                      00001000   218          ST    R0,FAILED
                                                    219
00000352  41C0 C004                      00000004   220          LA    R12,4(0,R12)         next test address
00000356  47F0 802A                      0000022A   221          B     NEXTE6
```

```
                                                    223 ************************************************************************
                                                    224 * end of testing; set ending psw
                                                    225 ************************************************************************
                               0000035A  00000001   226 ENDTEST  EQU   *
0000035A  5810 8E00                      00001000   227          L     R1,FAILED            did a test fail?
0000035E  1211                                      228          LTR   R1,R1
00000360  4780 8268                      00000468   229          BZ    EOJ                     No, exit
00000364  47F0 8280                      00000480   230          B     FAILTEST                Yes, exit with BAD PSW
                                                    231
```

```
  LOC        OBJECT CODE       ADDR1     ADDR2     STMT
                                                    233 ************************************************************************
                                                    234 *        RPTERROR          Report instruction test in error
                                                    235 *                             R0 = MESSGAE LENGTH
                                                    236 *                             R1 = ADDRESS OF MESSAGE
                                                    237 ************************************************************************

00000368  50F0 8188                 00000388   239 RPTERROR ST    R15,RPTSAVE          Save return address
0000036C  5050 818C                 0000038C   240          ST    R5,RPTSVR5           Save R5
                                                    241 *
                                                    242 *        Use Hercules Diagnose for Message to console
                                                    243 *
00000370  9002 8190                 00000390   244          STM   R0,R2,RPTDWSAV       save regs used by MSG
00000374  4520 81A0                 000003A0   245          BAL   R2,MSG               call Hercules console MSG display
00000378  9802 8190                 00000390   246          LM    R0,R2,RPTDWSAV       restore regs


0000037C  5850 818C                 0000038C   248          L     R5,RPTSVR5           Restore R5
00000380  58F0 8188                 00000388   249          L     R15,RPTSAVE          Restore return address
00000384  07FF                               250          BR    R15                  Return to caller

00000388  00000000                           252 RPTSAVE  DC    F'0'                 R15 save area
0000038C  00000000                           253 RPTSVR5  DC    F'0'                 R5 save area

00000390  00000000 00000000                  255 RPTDWSAV DC    2D'0'                R0-R2 save area for MSG call
```

```
  LOC        OBJECT CODE       ADDR1     ADDR2     STMT
                                                    257 ************************************************************************
                                                    258 *        Issue HERCULES MESSAGE pointed to by R1, length in R0
                                                    259 *              R2 = return address
                                                    260 ************************************************************************
                                                    261
000003A0  4900 8298                 00000498       262 MSG      CH    R0,=H'0'                Do we even HAVE a message?
000003A4  07D2                                      263          BNHR  R2                      No, ignore
                                                    264
000003A6  9002 81DC                 000003DC       265          STM   R0,R2,MSGSAVE           Save registers
                                                    266
000003AA  4900 829A                 0000049A       267          CH    R0,=AL2(L'MSGMSG)       Message length within limits?
000003AE  47D0 81B6                 000003B6       268          BNH   MSGOK                   Yes, continue
000003B2  4100 005F                 0000005F       269          LA    R0,L'MSGMSG             No, set to maximum
                                                    270
000003B6  1820                                      271 MSGOK    LR    R2,R0                   Copy length to work register
000003B8  0620                                      272          BCTR  R2,0                    Minus-1 for execute
000003BA  4420 81E8                 000003E8       273          EX    R2,MSGMVC               Copy message to O/P buffer
                                                    274
000003BE  4120 200A                 0000000A       275          LA    R2,1+L'MSGCMD(,R2)      Calculate true command length
000003C2  4110 81EE                 000003EE       276          LA    R1,MSGCMD               Point to true command
                                                    277
000003C6  83120008                                  278          DC    X'83',X'12',X'0008'     Issue Hercules Diagnose X'008'
000003CA  4780 81D6                 000003D6       279          BZ    MSGRET                  Return if successful
                                                    280
000003CE  1222                                      281          LTR   R2,R2                   Is Diag8 Ry (R2) 0?
000003D0  4780 81D6                 000003D6       282          BZ    MSGRET                    an error occurred but coninue
                                                    283
000003D4  0000                                      284          DC    H'0'                    CRASH for debugging purposes
                                                    285
000003D6  9802 81DC                 000003DC       286 MSGRET   LM    R0,R2,MSGSAVE           Restore registers
000003DA  07F2                                      287          BR    R2                      Return to caller


000003DC  00000000 00000000                         289 MSGSAVE  DC    3F'0'                   Registers save area
000003E8  D200 81F7 1000      000003F7  00000000    290 MSGMVC   MVC   MSGMSG(0),0(R1)         Executed instruction

000003EE  D4E2C7D5 D6C8405C                         292 MSGCMD   DC    C'MSGNOH * '            *** HERCULES MESSAGE COMMAND ***
000003F7  40404040 40404040                         293 MSGMSG   DC    CL95' '                 The message text to be displayed
                                                    294
```

```
  LOC         OBJECT CODE       ADDR1     ADDR2     STMT
                                                      296 ********************************************************************************
                                                      297 *        Normal completion or Abnormal termination PSWs
                                                      298 ********************************************************************************


00000458  00020001 80000000                           300 EOJPSW   DC    0D'0',X'0002000180000000',AD(0)
00000468  B2B2 8258                   00000458        302 EOJ      LPSWE EOJPSW               Normal completion


00000470  00020001 80000000                           304 FAILPSW  DC    0D'0',X'0002000180000000',AD(X'BAD')
00000480  B2B2 8270                   00000470        306 FAILTEST LPSWE FAILPSW              Abnormal termination


                                                      308 ********************************************************************************
                                                      309 *        Working Storage
                                                      310 ********************************************************************************


00000484  00000000                                    312 CTLR0    DS    F                    CR0
00000488  00000000                                    313          DS    F
                                                      314
0000048C  00002160                                    315 E6TADR   DC    A(E6TESTS)           address of E6 test table


00000490                                              317          LTORG ,                    Literals pool
00000490  00000001                                    318                =F'1'
00000494  00000003                                    319                =XL4'3'
00000498  0000                                        320                =H'0'
0000049A  005F                                        321                =AL2(L'MSGMSG)
                                                      322
                                                      323 *        some constants
                                                      324
                          00000400  00000001        325 K        EQU   1024                 One KB
                          00001000  00000001        326 PAGE     EQU   (4*K)                Size of one page
                          00010000  00000001        327 K64      EQU   (64*K)               64 KB
                          00100000  00000001        328 MB       EQU   (K*K)                 1 MB
                                                      329
                                                      330
                          AABBCCDD  00000001        331 REG2PATT EQU   X'AABBCCDD'      Polluted Register pattern
                          000000DD  00000001        332 REG2LOW  EQU         X'DD'      (last byte above)
```

```
  LOC        OBJECT CODE       ADDR1     ADDR2     STMT
                                                    334 *=====================================================================
                                                    335 *
                                                    336 *  NOTE: start data on an address that is easy to display
                                                    337 *        within Hercules
                                                    338 *
                                                    339 *=====================================================================
                                                    340
0000049C                      0000049C  00001000    341          ORG   ZVE6TST+X'1000'
00001000  00000000                                  342 FAILED   DC    F'0'                    some test failed?
00001004  00000000                                  343 TESTING  DC    F'0'                    current test number

                                                    345 ************************************************************************
                                                    346 *        TEST failed : result messgae
                                                    347 ************************************************************************
                                                    348 *
                                                    349 *        failed message and associated editting
                                                    350 *
00001008  40404040 40404040                         351 PRTLINE  DC    C'         Test # '
00001018  A7A7A7                                    352 PRTNUM   DC    C'xxx'
0000101B  40868189 93858440                         353          DC    C' failed for instruction '
00001033  A7A7A7A7 A7A7A7A7                         354 PRTNAME  DC    CL8'xxxxxxxx'
0000103B  40A689A3 884094F3                         355          DC    C' with m3='
00001044  A7A7                                      356 PRTM3    DC    C'xx'
00001046  4B                                        357          DC    C'.'
                                0000003F  00000001  358 PRTLNG   EQU   *-PRTLINE

                                                    360 ************************************************************************
                                                    361 *        TEST failed : CC message
                                                    362 ************************************************************************
                                                    363 *
                                                    364 *        failed message and associated editting
                                                    365 *
00001047  40404040 40404040                         366 CCPRTLINE DC   C'         Test # '
00001057  A7A7A7                                    367 CCPRTNUM DC    C'xxx'
0000105A  40A69996 95874083                         368          DC    c' wrong cc for instruction '
00001074  A7A7A7A7 A7A7A7A7                         369 CCPRTNAME DC    CL8'xxxxxxxx'
0000107C  4085A797 8583A385                         370          DC    C' expected: cc='
0000108A  A7                                        371 CCPRTEXP DC    C'x'
0000108B  6B                                        372          DC    C','
0000108C  40998583 8589A585                         373          DC    C' received: cc='
0000109A  A7                                        374 CCPRTGOT DC    C'x'
0000109B  4B                                        375          DC    C'.'
                                00000055  00000001  376 CCPRTLNG   EQU   *-CCPRTLINE
```

```
  LOC        OBJECT CODE       ADDR1     ADDR2     STMT
                                                     378 ************************************************************************
                                                     379 *        TEST failed : message working storge
                                                     380 ************************************************************************
0000109C  40212020 20202020                          381 EDIT     DC    XL18'40212020202020202020202020202020'
                                                     382
000010AE  7E7E7E6E                                   383          DC    C'===>'
000010B2  40404040 40404040                          384 PRT3     DC    CL18' '
000010C4  4C7E7E7E                                   385          DC    C'<==='
000010C8  00000000 00000000                          386 DECNUM   DS    CL16
                                                     387 *
                                                     388 *        CC extrtaction
                                                     389 *
000010D8  00000000 00000000                          390 CCPSW    DS    2F          extract PSW after test (has CC)
000010E0  00                                         391 CCFOUND  DS    X           extracted cc

                                                     393 ************************************************************************
                                                     394 *        Vector instruction results, pollution and input
                                                     395 ************************************************************************
000010E8                                             396          DS    0FD
000010E8  AABBCCDD EEFFAABB                          397 R1FUDGE  DC    XL8'AABBCCDDEEFFAABB'                    R1 FUDGE
000010F0  00000000 00000000                          398          DS    XL16                                        gap
00001100  00000000 00000000                          399 V1OUTPUT DS    XL16                                     V1 OUTPUT
00001110  00000000 00000000                          400          DS    XL16                                        gap
00001120  00000000 00000000                          401 R1OUTPUT DS    FD                                       R1 OUTPUT
00001128  00000000 00000000                          402          DS    XL16                                        gap
00001138  FFFFFFFF FFFFFFFF                          403 V1FUDGE  DC    XL16'FFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFF'   V1 FUDGE
00001148  BBBBBBBB BBBBBBBB                          404 V1FUDGEB DC    XL16'BBBBBBBBBBBBBBBBBBBBBBBBBBBBBBBB'   V1 FUDGE b
00001158  F1F2F3F4 F5F6F7F8                          405 V1INPUT  DC    CL16'1234567890123456'                   V1 input
00001168  F7F8F9F0 F1F2F3F4                          406          DC    CL14'78901234567890'
00001176  D9                                         407          DC    X'D9'
00001177  00000000 00000000                          408          DS    XL16                                        gap
```

```
  LOC        OBJECT CODE       ADDR1     ADDR2     STMT

                                                     410 ********************************************************************************
                                                     411 *        E6TEST DSECT
                                                     412 ********************************************************************************


                                                     414 E6TEST   DSECT ,
00000000  00000000                                   415 TSUB     DC    A(0)           pointer  to test
00000004  0000                                       416 TNUM     DC    H'00'          Test Number
00000006  00                                         417          DC    XL1'00'
00000007  00                                         418 M3       DC    HL1'00'        M3
00000008  00                                         419 CC       DC    HL1'00'        cc
00000009  00                                         420 CCMASK   DC    HL1'00'        not expected CC mask
                                                     421
0000000A  40404040 40404040                          422 OPNAME   DC    CL8' '         E6 name
                                                     423
00000014  00000000                                   424 RELEN    DC    A(0)           RESULT LENGTH
00000018  00000000                                   425 READDR   DC    A(0)           expected result address
                                                     426
                                                     427 **
                                                     428 *        test routine will be here (from VRR_I macro)
                                                     429 *              followed by
                                                     430 *              r1     - expected result (64 bits) (even for VCVB)
                                                     431 *              v1     - 16 byte packed decimal source
```

```
  LOC         OBJECT CODE       ADDR1     ADDR2     STMT
                                                      433 ************************************************************************
                                                      434 *     Macros to help build test tables
                                                      435 *----------------------------------------------------------------------
                                                      436 *     VRR_I Macro to help build test tables
                                                      437 ************************************************************************
                                                      438          MACRO
                                                      439          VRR_I &INST,&M3,&CC
                                                      440 .*                                  &INST  - VRS-d instruction under test
                                                      441 .*                                  &M3    - P2 (bit 0), P1 (bit 2) and
                                                      442 .*                                    CS (bit 3)
                                                      443 .*                                  &CC    - expected CC
                                                      444 .*
                                                      445 .*                       note:      M4    - bit 0   IOM (always 0)
                                                      446 .*
                                                      447 .*
                                                      448          LCLA  &XCC(4)  &CC has mask values for FAILED condition codes
                                                      449 &XCC(1)  SETA  7                   CC != 0
                                                      450 &XCC(2)  SETA  11                  CC != 1
                                                      451 &XCC(3)  SETA  13                  CC != 2
                                                      452 &XCC(4)  SETA  14                  CC != 3
                                                      453
                                                      454          GBLA  &TNUM
                                                      455 &TNUM    SETA  &TNUM+1
                                                      456
                                                      457          DS    0FD
                                                      458          USING *,R5               base for test data and test routine
                                                      459
                                                      460 T&TNUM   DC    A(X&TNUM)          address of test routine
                                                      461          DC    H'&TNUM'           test number
                                                      462          DC    XL1'00'
                                                      463          DC    HL1'&M3'           &M3
                                                      464          DC    HL1'&CC'           cc
                                                      465          DC    HL1'&XCC(&CC+1)'   cc failed mask
                                                      466
                                                      467          DC    CL8'&INST'         instruction name
                                                      468          DC    A(16)              result length
                                                      469 REA&TNUM DC    A(RE&TNUM)         result address
                                                      470 .*
                                                      471 *                                  INSTRUCTION UNDER TEST ROUTINE
                                                      472 X&TNUM   DS    0F
                                                      473          LG    R1,R1FUDGE         pollute R1
                                                      474          VL    V1,RE&TNUM+8       get V1 source
                                                      475
                                                      476          &INST R1,V1,&M3          test instruction
                                                      477
                                                      478          STG   R1,R1OUTPUT        save
                                                      479          EPSW  R2,R0              exptract psw
                                                      480          ST    R2,CCPSW               to save CC
                                                      481
                                                      482          BR    R11                return
                                                      483
                                                      484 RE&TNUM  DC    0F
                                                      485          DROP  R5
                                                      486
                                                      487          MEND
```

```
 LOC         OBJECT CODE       ADDR1     ADDR2     STMT

                                                     489 ************************************************************************
                                                     490 *     PTTABLE Macro to generate table of pointers to individual tests
                                                     491 ************************************************************************
                                                     492
                                                     493          MACRO
                                                     494          PTTABLE
                                                     495          GBLA  &TNUM
                                                     496          LCLA  &CUR
                                                     497 &CUR     SETA  1
                                                     498 .*
                                                     499 TTABLE   DS    0F
                                                     500 .LOOP    ANOP
                                                     501 .*
                                                     502          DC    A(T&CUR)           address of test
                                                     503 .*
                                                     504 &CUR     SETA  &CUR+1
                                                     505          AIF   (&CUR LE &TNUM).LOOP
                                                     506 *
                                                     507          DC    A(0)               END OF TABLE
                                                     508          DC    A(0)
                                                     509 .*
                                                     510          MEND
```

```
  LOC         OBJECT CODE       ADDR1     ADDR2     STMT
                                                      512 ********************************************************************************
                                                      513 *        E6 VRR_I tests
                                                      514 ********************************************************************************
                              00000000  00002227    515 ZVE6TST  CSECT ,
00001188                                            516          DS    0F


                                                      518          PRINT DATA
                                                      519 *
                                                      520 *        E650 VCVB    - VECTOR CONVERT TO BINARY  (32)
                                                      521 *        E652 VCVBG   - VECTOR CONVERT TO BINARY  (64)
                                                      522 *
                                                      523 *        VRR_I instr, m3, m4
                                                      524 *             followed by
                                                      525 *             r1     - expected result (64 bits) (even for VCVB)
                                                      526 *             v1     - 16 byte packed decimal source
                                                      527
                                                      528 *-------------------------------------------------------------------
                                                      529 * VCVB    - VECTOR CONVERT TO BINARY  (32)
                                                      530 *-------------------------------------------------------------------
                                                      531 * VCVB simple
                                                      532          VRR_I VCVB,1,0
00001188                                              533+         DS    0FD
00001188                              00001188        534+         USING *,R5              base for test data and test routine
00001188  000011A4                                    535+T1       DC    A(X1)             address of test routine
0000118C  0001                                        536+         DC    H'1'              test number
0000118E  00                                          537+         DC    XL1'00'
0000118F  01                                          538+         DC    HL1'1'            &M3
00001190  00                                          539+         DC    HL1'0'            cc
00001191  07                                          540+         DC    HL1'7'            cc failed mask
00001192  E5C3E5C2 40404040                           541+         DC    CL8'VCVB'         instruction name
0000119C  00000010                                    542+         DC    A(16)             result length
000011A0  000011C8                                    543+REA1     DC    A(RE1)            result address
                                                      544+*                                  INSTRUCTION UNDER TEST ROUTINE
000011A4                                              545+X1       DS    0F
000011A4  E310 8EE8 0004                 000010E8     546+         LG    R1,R1FUDGE        pollute R1
000011AA  E710 5048 0006                 000011D0     547+         VL    V1,RE1+8          get V1 source
000011B0  E611 0010 0050                              548+         VCVB  R1,V1,1           test instruction
000011B6  E310 8F20 0024                 00001120     549+         STG   R1,R1OUTPUT       save
000011BC  B98D 0020                                   550+         EPSW  R2,R0             exptract psw
000011C0  5020 8ED8                      000010D8     551+         ST    R2,CCPSW              to save CC
000011C4  07FB                                        552+         BR    R11               return
000011C8                                              553+RE1      DC    0F
000011C8                                              554+         DROP  R5
000011C8  AABBCCDD 0000000A                           555          DC    XL08'AABBCCDD0000000A'                    R1 result
000011D0  00000000 00000000                           556          DC    XL16'0000000000000000000000000000010C'    V1 source
000011D8  00000000 0000010C
                                                      557
                                                      558          VRR_I VCVB,1,0
000011E0                                              559+         DS    0FD
000011E0                    000011E0                  560+         USING *,R5              base for test data and test routine
000011E0  000011FC                                    561+T2       DC    A(X2)             address of test routine
000011E4  0002                                        562+         DC    H'2'              test number
000011E6  00                                          563+         DC    XL1'00'
000011E7  01                                          564+         DC    HL1'1'            &M3
000011E8  00                                          565+         DC    HL1'0'            cc
```

```
  LOC        OBJECT CODE       ADDR1     ADDR2     STMT

000011E9  07                                       566+          DC    HL1'7'              cc failed mask
000011EA  E5C3E5C2 40404040                        567+          DC    CL8'VCVB'           instruction name
000011F4  00000010                                 568+          DC    A(16)               result length
000011F8  00001220                                 569+REA2      DC    A(RE2)              result address
                                                   570+*                                   INSTRUCTION UNDER TEST ROUTINE
000011FC                                           571+X2        DS    0F
000011FC  E310 8EE8 0004                 000010E8  572+          LG    R1,R1FUDGE          pollute R1
00001202  E710 9028 0006                 00001228  573+          VL    V1,RE2+8            get V1 source
00001208  E611 0010 0050                           574+          VCVB  R1,V1,1             test instruction
0000120E  E310 8F20 0024                 00001120  575+          STG   R1,R1OUTPUT         save
00001214  B98D 0020                                576+          EPSW  R2,R0               exptract psw
00001218  5020 8ED8                      000010D8  577+          ST    R2,CCPSW                to save CC
0000121C  07FB                                     578+          BR    R11                 return
00001220                                           579+RE2       DC    0F
00001220                                           580+          DROP  R5
00001220  AABBCCDD FFFFFFF6                        581           DC    XL08'AABBCCDDFFFFFFF6'                    R1 result
00001228  00000000 00000000                        582           DC    XL16'0000000000000000000000000000010D'    V1 source
00001230  00000000 0000010D
                                                   583
                                                   584           VRR_I VCVB,1,0
00001238                                           585+          DS    0FD
00001238                 00001238                  586+          USING *,R5                base for test data and test routine
00001238  00001254                                 587+T3        DC    A(X3)               address of test routine
0000123C  0003                                     588+          DC    H'3'                test number
0000123E  00                                       589+          DC    XL1'00'
0000123F  01                                       590+          DC    HL1'1'              &M3
00001240  00                                       591+          DC    HL1'0'              cc
00001241  07                                       592+          DC    HL1'7'              cc failed mask
00001242  E5C3E5C2 40404040                        593+          DC    CL8'VCVB'           instruction name
0000124C  00000010                                 594+          DC    A(16)               result length
00001250  00001278                                 595+REA3      DC    A(RE3)              result address
                                                   596+*                                   INSTRUCTION UNDER TEST ROUTINE
00001254                                           597+X3        DS    0F
00001254  E310 8EE8 0004                 000010E8  598+          LG    R1,R1FUDGE          pollute R1
0000125A  E710 5048 0006                 00001280  599+          VL    V1,RE3+8            get V1 source
00001260  E611 0010 0050                           600+          VCVB  R1,V1,1             test instruction
00001266  E310 8F20 0024                 00001120  601+          STG   R1,R1OUTPUT         save
0000126C  B98D 0020                                602+          EPSW  R2,R0               exptract psw
00001270  5020 8ED8                      000010D8  603+          ST    R2,CCPSW                to save CC
00001274  07FB                                     604+          BR    R11                 return
00001278                                           605+RE3       DC    0F
00001278                                           606+          DROP  R5
00001278  AABBCCDD 0008A160                        607           DC    XL08'AABBCCDD0008A160'                    R1 result
00001280  00000000 00000000                        608           DC    XL16'0000000000000000000000000565600C'    V1 source
00001288  00000000 0565600C
                                                   609
                                                   610           VRR_I VCVB,1,0
00001290                                           611+          DS    0FD
00001290                 00001290                  612+          USING *,R5                base for test data and test routine
00001290  000012AC                                 613+T4        DC    A(X4)               address of test routine
00001294  0004                                     614+          DC    H'4'                test number
00001296  00                                       615+          DC    XL1'00'
00001297  01                                       616+          DC    HL1'1'              &M3
00001298  00                                       617+          DC    HL1'0'              cc
00001299  07                                       618+          DC    HL1'7'              cc failed mask
0000129A  E5C3E5C2 40404040                        619+          DC    CL8'VCVB'           instruction name
```

```
  LOC        OBJECT CODE       ADDR1     ADDR2     STMT

000012A4  00000010                                620+         DC    A(16)             result length
000012A8  000012D0                                621+REA4     DC    A(RE4)            result address
                                                  622+*                                INSTRUCTION UNDER TEST ROUTINE
000012AC                                          623+X4       DS    0F
000012AC  E310 8EE8 0004                 000010E8 624+         LG    R1,R1FUDGE        pollute R1
000012B2  E710 5048 0006                 000012D8 625+         VL    V1,RE4+8          get V1 source
000012B8  E611 0010 0050                          626+         VCVB  R1,V1,1           test instruction
000012BE  E310 8F20 0024                 00001120 627+         STG   R1,R1OUTPUT       save
000012C4  B98D 0020                               628+         EPSW  R2,R0             exptract psw
000012C8  5020 8ED8                      000010D8 629+         ST    R2,CCPSW              to save CC
000012CC  07FB                                    630+         BR    R11               return
000012D0                                          631+RE4      DC    0F
000012D0                                          632+         DROP  R5
000012D0  AABBCCDD FFF75EA0                       633          DC    XL08'AABBCCDDFFF75EA0'                    R1 result
000012D8  00000000 00000000                       634          DC    XL16'0000000000000000000000000565600D'    V1 source
000012E0  00000000 0565600D
                                                  635
                                                  636          VRR_I VCVB,1,0                                  INT_MAX
000012E8                                          637+         DS    0FD
000012E8                          000012E8        638+         USING *,R5              base for test data and test routine
000012E8  00001304                                639+T5       DC    A(X5)             address of test routine
000012EC  0005                                    640+         DC    H'5'              test number
000012EE  00                                      641+         DC    XL1'00'
000012EF  01                                      642+         DC    HL1'1'            &M3
000012F0  00                                      643+         DC    HL1'0'            cc
000012F1  07                                      644+         DC    HL1'7'            cc failed mask
000012F2  E5C3E5C2 40404040                       645+         DC    CL8'VCVB'         instruction name
000012FC  00000010                                646+         DC    A(16)             result length
00001300  00001328                                647+REA5     DC    A(RE5)            result address
                                                  648+*                                INSTRUCTION UNDER TEST ROUTINE
00001304                                          649+X5       DS    0F
00001304  E310 8EE8 0004                 000010E8 650+         LG    R1,R1FUDGE        pollute R1
0000130A  E710 5048 0006                 00001330 651+         VL    V1,RE5+8          get V1 source
00001310  E611 0010 0050                          652+         VCVB  R1,V1,1           test instruction
00001316  E310 8F20 0024                 00001120 653+         STG   R1,R1OUTPUT       save
0000131C  B98D 0020                               654+         EPSW  R2,R0             exptract psw
00001320  5020 8ED8                      000010D8 655+         ST    R2,CCPSW              to save CC
00001324  07FB                                    656+         BR    R11               return
00001328                                          657+RE5      DC    0F
00001328                                          658+         DROP  R5
00001328  AABBCCDD 7FFFFFFF                       659          DC    XL08'AABBCCDD7FFFFFFF'                    R1 result
00001330  00000000 00000000                       660          DC    XL16'0000000000000000000002147483647C'    V1 source
00001338  00000214 7483647C
                                                  661
                                                  662          VRR_I VCVB,1,0                                  INT_MIN
00001340                                          663+         DS    0FD
00001340                          00001340        664+         USING *,R5              base for test data and test routine
00001340  0000135C                                665+T6       DC    A(X6)             address of test routine
00001344  0006                                    666+         DC    H'6'              test number
00001346  00                                      667+         DC    XL1'00'
00001347  01                                      668+         DC    HL1'1'            &M3
00001348  00                                      669+         DC    HL1'0'            cc
00001349  07                                      670+         DC    HL1'7'            cc failed mask
0000134A  E5C3E5C2 40404040                       671+         DC    CL8'VCVB'         instruction name
00001354  00000010                                672+         DC    A(16)             result length
00001358  00001380                                673+REA6     DC    A(RE6)            result address
```

```
  LOC        OBJECT CODE       ADDR1     ADDR2     STMT
                                                    674+*                                INSTRUCTION UNDER TEST ROUTINE
0000135C                                            675+X6       DS    0F
0000135C  E310 8EE8 0004                 000010E8   676+         LG    R1,R1FUDGE        pollute R1
00001362  E710 5048 0006                 00001388   677+         VL    V1,RE6+8          get V1 source
00001368  E611 0010 0050                            678+         VCVB  R1,V1,1           test instruction
0000136E  E310 8F20 0024                 00001120   679+         STG   R1,R1OUTPUT       save
00001374  B98D 0020                                 680+         EPSW  R2,R0             exptract psw
00001378  5020 8ED8                      000010D8   681+         ST    R2,CCPSW                to save CC
0000137C  07FB                                      682+         BR    R11               return
00001380                                            683+RE6      DC    0F
00001380                                            684+         DROP  R5
00001380  AABBCCDD 80000000                         685          DC    XL08'AABBCCDD80000000'                      R1 result
00001388  00000000 00000000                         686          DC    XL16'00000000000000000000002147483648D'     V1 source
00001390  00000214 7483648D
                                                    687
                                                    688          VRR_I VCVB,3,0                                    UINT_MAX
00001398                                            689+         DS    0FD
00001398                         00001398           690+         USING *,R5              base for test data and test routine
00001398  000013B4                                  691+T7       DC    A(X7)             address of test routine
0000139C  0007                                      692+         DC    H'7'              test number
0000139E  00                                        693+         DC    XL1'00'
0000139F  03                                        694+         DC    HL1'3'            &M3
000013A0  00                                        695+         DC    HL1'0'            cc
000013A1  07                                        696+         DC    HL1'7'            cc failed mask
000013A2  E5C3E5C2 40404040                         697+         DC    CL8'VCVB'         instruction name
000013AC  00000010                                  698+         DC    A(16)             result length
000013B0  000013D8                                  699+REA7     DC    A(RE7)            result address
                                                    700+*                                INSTRUCTION UNDER TEST ROUTINE
000013B4                                            701+X7       DS    0F
000013B4  E310 8EE8 0004                 000010E8   702+         LG    R1,R1FUDGE        pollute R1
000013BA  E710 5048 0006                 000013E0   703+         VL    V1,RE7+8          get V1 source
000013C0  E611 0030 0050                            704+         VCVB  R1,V1,3           test instruction
000013C6  E310 8F20 0024                 00001120   705+         STG   R1,R1OUTPUT       save
000013CC  B98D 0020                                 706+         EPSW  R2,R0             exptract psw
000013D0  5020 8ED8                      000010D8   707+         ST    R2,CCPSW                to save CC
000013D4  07FB                                      708+         BR    R11               return
000013D8                                            709+RE7      DC    0F
000013D8                                            710+         DROP  R5
000013D8  AABBCCDD FFFFFFFF                         711          DC    XL08'AABBCCDDFFFFFFFF'                      R1 result
000013E0  00000000 00000000                         712          DC    XL16'00000000000000000000004294967295C'     V1 source
000013E8  00000429 4967295C
                                                    713
                                                    714          VRR_I VCVB,3,3                                    UINT_MAX +1
000013F0                                            715+         DS    0FD
000013F0                         000013F0           716+         USING *,R5              base for test data and test routine
000013F0  0000140C                                  717+T8       DC    A(X8)             address of test routine
000013F4  0008                                      718+         DC    H'8'              test number
000013F6  00                                        719+         DC    XL1'00'
000013F7  03                                        720+         DC    HL1'3'            &M3
000013F8  03                                        721+         DC    HL1'3'            cc
000013F9  0E                                        722+         DC    HL1'14'           cc failed mask
000013FA  E5C3E5C2 40404040                         723+         DC    CL8'VCVB'         instruction name
00001404  00000010                                  724+         DC    A(16)             result length
00001408  00001430                                  725+REA8     DC    A(RE8)            result address
                                                    726+*                                INSTRUCTION UNDER TEST ROUTINE
0000140C                                            727+X8       DS    0F
```

```
  LOC        OBJECT CODE       ADDR1     ADDR2     STMT

0000140C  E310 8EE8 0004                 000010E8   728+         LG    R1,R1FUDGE        pollute R1
00001412  E710 5048 0006                 00001438   729+         VL    V1,RE8+8          get V1 source
00001418  E611 0030 0050                            730+         VCVB  R1,V1,3           test instruction
0000141E  E310 8F20 0024                 00001120   731+         STG   R1,R1OUTPUT       save
00001424  B98D 0020                                 732+         EPSW  R2,R0             exptract psw
00001428  5020 8ED8                      000010D8   733+         ST    R2,CCPSW              to save CC
0000142C  07FB                                      734+         BR    R11               return
00001430                                            735+RE8      DC    0F
00001430                                            736+         DROP  R5
00001430  AABBCCDD 00000000                         737          DC    XL08'AABBCCDD00000000'                    R1 result
00001438  00000000 00000000                         738          DC    XL16'00000000000000000000004294967296C'   V1 source
00001440  00000429 4967296C
                                                    739
                                                    740          VRR_I VCVB,1,3
00001448                                            741+         DS    0FD
00001448                           00001448         742+         USING *,R5              base for test data and test routine
00001448  00001464                                  743+T9       DC    A(X9)             address of test routine
0000144C  0009                                      744+         DC    H'9'              test number
0000144E  00                                        745+         DC    XL1'00'
0000144F  01                                        746+         DC    HL1'1'            &M3
00001450  03                                        747+         DC    HL1'3'            cc
00001451  0E                                        748+         DC    HL1'14'           cc failed mask
00001452  E5C3E5C2 40404040                         749+         DC    CL8'VCVB'         instruction name
0000145C  00000010                                  750+         DC    A(16)             result length
00001460  00001488                                  751+REA9     DC    A(RE9)            result address
                                                    752+*                                INSTRUCTION UNDER TEST ROUTINE
00001464                                            753+X9       DS    0F
00001464  E310 8EE8 0004                 000010E8   754+         LG    R1,R1FUDGE        pollute R1
0000146A  E710 5048 0006                 00001490   755+         VL    V1,RE9+8          get V1 source
00001470  E611 0010 0050                            756+         VCVB  R1,V1,1           test instruction
00001476  E310 8F20 0024                 00001120   757+         STG   R1,R1OUTPUT       save
0000147C  B98D 0020                                 758+         EPSW  R2,R0             exptract psw
00001480  5020 8ED8                      000010D8   759+         ST    R2,CCPSW              to save CC
00001484  07FB                                      760+         BR    R11               return
00001488                                            761+RE9      DC    0F
00001488                                            762+         DROP  R5
00001488  AABBCCDD DF8E1660                         763          DC    XL08'AABBCCDDDF8E1660'                    R1 result
00001490  00000000 00000000                         764          DC    XL16'00000000000000000000012340565600C'   V1 source
00001498  00001234 0565600C
                                                    765
                                                    766 * VCVB simple: p2=1
                                                    767          VRR_I VCVB,9,0
000014A0                                            768+         DS    0FD
000014A0                           000014A0         769+         USING *,R5              base for test data and test routine
000014A0  000014BC                                  770+T10      DC    A(X10)            address of test routine
000014A4  000A                                      771+         DC    H'10'             test number
000014A6  00                                        772+         DC    XL1'00'
000014A7  09                                        773+         DC    HL1'9'            &M3
000014A8  00                                        774+         DC    HL1'0'            cc
000014A9  07                                        775+         DC    HL1'7'            cc failed mask
000014AA  E5C3E5C2 40404040                         776+         DC    CL8'VCVB'         instruction name
000014B4  00000010                                  777+         DC    A(16)             result length
000014B8  000014E0                                  778+REA10    DC    A(RE10)           result address
                                                    779+*                                INSTRUCTION UNDER TEST ROUTINE
000014BC                                            780+X10      DS    0F
000014BC  E310 8EE8 0004                 000010E8   781+         LG    R1,R1FUDGE        pollute R1
```

```
  LOC        OBJECT CODE       ADDR1     ADDR2     STMT

000014C2  E710 5048 0006                 000014E8   782+         VL    V1,RE10+8          get V1 source
000014C8  E611 0090 0050                            783+         VCVB  R1,V1,9            test instruction
000014CE  E310 8F20 0024                 00001120   784+         STG   R1,R1OUTPUT        save
000014D4  B98D 0020                                 785+         EPSW  R2,R0              exptract psw
000014D8  5020 8ED8                      000010D8   786+         ST    R2,CCPSW                to save CC
000014DC  07FB                                      787+         BR    R11                return
000014E0                                            788+RE10     DC    0F
000014E0                                            789+         DROP  R5
000014E0  AABBCCDD 0000000A                         790          DC    XL08'AABBCCDD0000000A'                    R1 result
000014E8  00000000 00000000                         791          DC    XL16'0000000000000000000000000000010C'    V1 source
000014F0  00000000 0000010C
                                                    792
                                                    793          VRR_I VCVB,9,0
000014F8                                            794+         DS    0FD
000014F8                         000014F8           795+         USING *,R5               base for test data and test routine
000014F8  00001514                                  796+T11      DC    A(X11)             address of test routine
000014FC  000B                                      797+         DC    H'11'              test number
000014FE  00                                        798+         DC    XL1'00'
000014FF  09                                        799+         DC    HL1'9'             &M3
00001500  00                                        800+         DC    HL1'0'             cc
00001501  07                                        801+         DC    HL1'7'             cc failed mask
00001502  E5C3E5C2 40404040                         802+         DC    CL8'VCVB'          instruction name
0000150C  00000010                                  803+         DC    A(16)              result length
00001510  00001538                                  804+REA11    DC    A(RE11)            result address
                                                    805+*                                 INSTRUCTION UNDER TEST ROUTINE
00001514                                            806+X11      DS    0F
00001514  E310 8EE8 0004                 000010E8   807+         LG    R1,R1FUDGE         pollute R1
0000151A  E710 5048 0006                 00001540   808+         VL    V1,RE11+8          get V1 source
00001520  E611 0090 0050                            809+         VCVB  R1,V1,9            test instruction
00001526  E310 8F20 0024                 00001120   810+         STG   R1,R1OUTPUT        save
0000152C  B98D 0020                                 811+         EPSW  R2,R0              exptract psw
00001530  5020 8ED8                      000010D8   812+         ST    R2,CCPSW                to save CC
00001534  07FB                                      813+         BR    R11                return
00001538                                            814+RE11     DC    0F
00001538                                            815+         DROP  R5
00001538  AABBCCDD 0000000A                         816          DC    XL08'AABBCCDD0000000A'                    R1 result
00001540  00000000 00000000                         817          DC    XL16'0000000000000000000000000000010D'    V1 source
00001548  00000000 0000010D
                                                    818
                                                    819          VRR_I VCVB,9,0
00001550                                            820+         DS    0FD
00001550                         00001550           821+         USING *,R5               base for test data and test routine
00001550  0000156C                                  822+T12      DC    A(X12)             address of test routine
00001554  000C                                      823+         DC    H'12'              test number
00001556  00                                        824+         DC    XL1'00'
00001557  09                                        825+         DC    HL1'9'             &M3
00001558  00                                        826+         DC    HL1'0'             cc
00001559  07                                        827+         DC    HL1'7'             cc failed mask
0000155A  E5C3E5C2 40404040                         828+         DC    CL8'VCVB'          instruction name
00001564  00000010                                  829+         DC    A(16)              result length
00001568  00001590                                  830+REA12    DC    A(RE12)            result address
                                                    831+*                                 INSTRUCTION UNDER TEST ROUTINE
0000156C                                            832+X12      DS    0F
0000156C  E310 8EE8 0004                 000010E8   833+         LG    R1,R1FUDGE         pollute R1
00001572  E710 5048 0006                 00001598   834+         VL    V1,RE12+8          get V1 source
00001578  E611 0090 0050                            835+         VCVB  R1,V1,9            test instruction
```

```
  LOC        OBJECT CODE       ADDR1     ADDR2     STMT

0000157E  E310 8F20 0024                 00001120   836+          STG   R1,R1OUTPUT       save
00001584  B98D 0020                                 837+          EPSW  R2,R0             exptract psw
00001588  5020 8ED8                      000010D8   838+          ST    R2,CCPSW              to save CC
0000158C  07FB                                      839+          BR    R11               return
00001590                                            840+RE12      DC    0F
00001590                                            841+          DROP  R5
00001590  AABBCCDD 0008A160                         842           DC    XL08'AABBCCDD0008A160'                    R1 result
00001598  00000000 00000000                         843           DC    XL16'0000000000000000000000000565600C'    V1 source
000015A0  00000000 0565600C
                                                    844
                                                    845           VRR_I VCVB,9,0
000015A8                                            846+          DS    0FD
000015A8                         000015A8           847+          USING *,R5              base for test data and test routine
000015A8  000015C4                                  848+T13       DC    A(X13)            address of test routine
000015AC  000D                                      849+          DC    H'13'             test number
000015AE  00                                        850+          DC    XL1'00'
000015AF  09                                        851+          DC    HL1'9'            &M3
000015B0  00                                        852+          DC    HL1'0'            cc
000015B1  07                                        853+          DC    HL1'7'            cc failed mask
000015B2  E5C3E5C2 40404040                         854+          DC    CL8'VCVB'         instruction name
000015BC  00000010                                  855+          DC    A(16)             result length
000015C0  000015E8                                  856+REA13     DC    A(RE13)           result address
                                                    857+*                                 INSTRUCTION UNDER TEST ROUTINE
000015C4                                            858+X13       DS    0F
000015C4  E310 8EE8 0004                 000010E8   859+          LG    R1,R1FUDGE        pollute R1
000015CA  E710 5048 0006                 000015F0   860+          VL    V1,RE13+8         get V1 source
000015D0  E611 0090 0050                            861+          VCVB  R1,V1,9           test instruction
000015D6  E310 8F20 0024                 00001120   862+          STG   R1,R1OUTPUT       save
000015DC  B98D 0020                                 863+          EPSW  R2,R0             exptract psw
000015E0  5020 8ED8                      000010D8   864+          ST    R2,CCPSW              to save CC
000015E4  07FB                                      865+          BR    R11               return
000015E8                                            866+RE13      DC    0F
000015E8                                            867+          DROP  R5
000015E8  AABBCCDD 0008A160                         868           DC    XL08'AABBCCDD0008A160'                    R1 result
000015F0  00000000 00000000                         869           DC    XL16'0000000000000000000000000565600D'    V1 source
000015F8  00000000 0565600D
                                                    870
                                                    871           VRR_I VCVB,9,0                                  INT_MAX
00001600                                            872+          DS    0FD
00001600                         00001600           873+          USING *,R5              base for test data and test routine
00001600  0000161C                                  874+T14       DC    A(X14)            address of test routine
00001604  000E                                      875+          DC    H'14'             test number
00001606  00                                        876+          DC    XL1'00'
00001607  09                                        877+          DC    HL1'9'            &M3
00001608  00                                        878+          DC    HL1'0'            cc
00001609  07                                        879+          DC    HL1'7'            cc failed mask
0000160A  E5C3E5C2 40404040                         880+          DC    CL8'VCVB'         instruction name
00001614  00000010                                  881+          DC    A(16)             result length
00001618  00001640                                  882+REA14     DC    A(RE14)           result address
                                                    883+*                                 INSTRUCTION UNDER TEST ROUTINE
0000161C                                            884+X14       DS    0F
0000161C  E310 8EE8 0004                 000010E8   885+          LG    R1,R1FUDGE        pollute R1
00001622  E710 5048 0006                 00001648   886+          VL    V1,RE14+8         get V1 source
00001628  E611 0090 0050                            887+          VCVB  R1,V1,9           test instruction
0000162E  E310 8F20 0024                 00001120   888+          STG   R1,R1OUTPUT       save
00001634  B98D 0020                                 889+          EPSW  R2,R0             exptract psw
```

```
  LOC        OBJECT CODE       ADDR1     ADDR2     STMT
00001638  5020 8ED8                      000010D8   890+         ST    R2,CCPSW              to save CC
0000163C  07FB                                     891+         BR    R11                 return
00001640                                           892+RE14     DC    0F
00001640                                           893+         DROP  R5
00001640  AABBCCDD 7FFFFFFF                        894          DC    XL08'AABBCCDD7FFFFFFF'                    R1 result
00001648  00000000 00000000                        895          DC    XL16'0000000000000000000002147483647C'    V1 source
00001650  00000214 7483647C
                                                   896
                                                   897          VRR_I VCVB,9,3                                  INT_MIN
00001658                                           898+         DS    0FD
00001658                    00001658               899+         USING *,R5                base for test data and test routine
00001658  00001674                                 900+T15      DC    A(X15)              address of test routine
0000165C  000F                                     901+         DC    H'15'               test number
0000165E  00                                       902+         DC    XL1'00'
0000165F  09                                       903+         DC    HL1'9'              &M3
00001660  03                                       904+         DC    HL1'3'              cc
00001661  0E                                       905+         DC    HL1'14'             cc failed mask
00001662  E5C3E5C2 40404040                        906+         DC    CL8'VCVB'           instruction name
0000166C  00000010                                 907+         DC    A(16)               result length
00001670  00001698                                 908+REA15    DC    A(RE15)             result address
                                                   909+*                                  INSTRUCTION UNDER TEST ROUTINE
00001674                                           910+X15      DS    0F
00001674  E310 8EE8 0004                 000010E8  911+         LG    R1,R1FUDGE          pollute R1
0000167A  E710 5048 0006                 000016A0  912+         VL    V1,RE15+8           get V1 source
00001680  E611 0090 0050                           913+         VCVB  R1,V1,9             test instruction
00001686  E310 8F20 0024                 00001120  914+         STG   R1,R1OUTPUT         save
0000168C  B98D 0020                                915+         EPSW  R2,R0               exptract psw
00001690  5020 8ED8                      000010D8  916+         ST    R2,CCPSW              to save CC
00001694  07FB                                     917+         BR    R11                 return
00001698                                           918+RE15     DC    0F
00001698                                           919+         DROP  R5
00001698  AABBCCDD 80000000                        920          DC    XL08'AABBCCDD80000000'                    R1 result
000016A0  00000000 00000000                        921          DC    XL16'0000000000000000000002147483648D'    V1 source
000016A8  00000214 7483648D
                                                   922
                                                   923          VRR_I VCVB,11,0                                 UINT_MAX
000016B0                                           924+         DS    0FD
000016B0                    000016B0               925+         USING *,R5                base for test data and test routine
000016B0  000016CC                                 926+T16      DC    A(X16)              address of test routine
000016B4  0010                                     927+         DC    H'16'               test number
000016B6  00                                       928+         DC    XL1'00'
000016B7  0B                                       929+         DC    HL1'11'             &M3
000016B8  00                                       930+         DC    HL1'0'              cc
000016B9  07                                       931+         DC    HL1'7'              cc failed mask
000016BA  E5C3E5C2 40404040                        932+         DC    CL8'VCVB'           instruction name
000016C4  00000010                                 933+         DC    A(16)               result length
000016C8  000016F0                                 934+REA16    DC    A(RE16)             result address
                                                   935+*                                  INSTRUCTION UNDER TEST ROUTINE
000016CC                                           936+X16      DS    0F
000016CC  E310 8EE8 0004                 000010E8  937+         LG    R1,R1FUDGE          pollute R1
000016D2  E710 5048 0006                 000016F8  938+         VL    V1,RE16+8           get V1 source
000016D8  E611 00B0 0050                           939+         VCVB  R1,V1,11            test instruction
000016DE  E310 8F20 0024                 00001120  940+         STG   R1,R1OUTPUT         save
000016E4  B98D 0020                                941+         EPSW  R2,R0               exptract psw
000016E8  5020 8ED8                      000010D8  942+         ST    R2,CCPSW              to save CC
000016EC  07FB                                     943+         BR    R11                 return
```

```
  LOC        OBJECT CODE       ADDR1     ADDR2     STMT
000016F0                                           944+RE16     DC    0F
000016F0                                           945+         DROP  R5
000016F0  AABBCCDD FFFFFFFF                        946          DC    XL08'AABBCCDDFFFFFFFF'                    R1 result
000016F8  00000000 00000000                        947          DC    XL16'00000000000000000000004294967295C'   V1 source
00001700  00000429 4967295C
                                                   948
                                                   949          VRR_I VCVB,11,3                                  UINT_MAX +1
00001708                                           950+         DS    0FD
00001708                     00001708              951+         USING *,R5              base for test data and test routine
00001708  00001724                                 952+T17      DC    A(X17)            address of test routine
0000170C  0011                                     953+         DC    H'17'             test number
0000170E  00                                       954+         DC    XL1'00'
0000170F  0B                                       955+         DC    HL1'11'           &M3
00001710  03                                       956+         DC    HL1'3'            cc
00001711  0E                                       957+         DC    HL1'14'           cc failed mask
00001712  E5C3E5C2 40404040                        958+         DC    CL8'VCVB'         instruction name
0000171C  00000010                                 959+         DC    A(16)             result length
00001720  00001748                                 960+REA17    DC    A(RE17)           result address
                                                   961+*                                INSTRUCTION UNDER TEST ROUTINE
00001724                                           962+X17      DS    0F
00001724  E310 8EE8 0004              000010E8     963+         LG    R1,R1FUDGE        pollute R1
0000172A  E710 5048 0006              00001750     964+         VL    V1,RE17+8         get V1 source
00001730  E611 00B0 0050                           965+         VCVB  R1,V1,11          test instruction
00001736  E310 8F20 0024              00001120     966+         STG   R1,R1OUTPUT       save
0000173C  B98D 0020                                967+         EPSW  R2,R0             exptract psw
00001740  5020 8ED8                   000010D8     968+         ST    R2,CCPSW              to save CC
00001744  07FB                                     969+         BR    R11               return
00001748                                           970+RE17     DC    0F
00001748                                           971+         DROP  R5
00001748  AABBCCDD 00000000                        972          DC    XL08'AABBCCDD00000000'                    R1 result
00001750  00000000 00000000                        973          DC    XL16'00000000000000000000004294967296C'   V1 source
00001758  00000429 4967296C
                                                   974
                                                   975          VRR_I VCVB,9,3
00001760                                           976+         DS    0FD
00001760                     00001760              977+         USING *,R5              base for test data and test routine
00001760  0000177C                                 978+T18      DC    A(X18)            address of test routine
00001764  0012                                     979+         DC    H'18'             test number
00001766  00                                       980+         DC    XL1'00'
00001767  09                                       981+         DC    HL1'9'            &M3
00001768  03                                       982+         DC    HL1'3'            cc
00001769  0E                                       983+         DC    HL1'14'           cc failed mask
0000176A  E5C3E5C2 40404040                        984+         DC    CL8'VCVB'         instruction name
00001774  00000010                                 985+         DC    A(16)             result length
00001778  000017A0                                 986+REA18    DC    A(RE18)           result address
                                                   987+*                                INSTRUCTION UNDER TEST ROUTINE
0000177C                                           988+X18      DS    0F
0000177C  E310 8EE8 0004              000010E8     989+         LG    R1,R1FUDGE        pollute R1
00001782  E710 5048 0006              000017A8     990+         VL    V1,RE18+8         get V1 source
00001788  E611 0090 0050                           991+         VCVB  R1,V1,9           test instruction
0000178E  E310 8F20 0024              00001120     992+         STG   R1,R1OUTPUT       save
00001794  B98D 0020                                993+         EPSW  R2,R0             exptract psw
00001798  5020 8ED8                   000010D8     994+         ST    R2,CCPSW              to save CC
0000179C  07FB                                     995+         BR    R11               return
000017A0                                           996+RE18     DC    0F
000017A0                                           997+         DROP  R5
```

```
  LOC        OBJECT CODE       ADDR1     ADDR2     STMT
000017A0  AABBCCDD DF8E1660                          998          DC    XL08'AABBCCDDDF8E1660'                    R1 result
000017A8  00000000 00000000                          999          DC    XL16'00000000000000000000012340565600C'  V1 source
000017B0  00001234 0565600C
                                                    1000
                                                    1001 *-------------------------------------------------------------------
                                                    1002 * VCVBG   - VECTOR CONVERT TO BINARY  (64)
                                                    1003 *-------------------------------------------------------------------
                                                    1004 * VCVBG simple
                                                    1005          VRR_I VCVBG,1,0
000017B8                                            1006+         DS    0FD
000017B8                          000017B8          1007+         USING *,R5               base for test data and test routine
000017B8  000017D4                                  1008+T19      DC    A(X19)             address of test routine
000017BC  0013                                      1009+         DC    H'19'              test number
000017BE  00                                        1010+         DC    XL1'00'
000017BF  01                                        1011+         DC    HL1'1'             &M3
000017C0  00                                        1012+         DC    HL1'0'             cc
000017C1  07                                        1013+         DC    HL1'7'             cc failed mask
000017C2  E5C3E5C2 C7404040                         1014+         DC    CL8'VCVBG'         instruction name
000017CC  00000010                                  1015+         DC    A(16)              result length
000017D0  000017F8                                  1016+REA19    DC    A(RE19)            result address
                                                    1017+*                                 INSTRUCTION UNDER TEST ROUTINE
000017D4                                            1018+X19      DS    0F
000017D4  E310 8EE8 0004                 000010E8   1019+         LG    R1,R1FUDGE         pollute R1
000017DA  E710 5048 0006                 00001800   1020+         VL    V1,RE19+8          get V1 source
000017E0  E611 0010 0052                            1021+         VCVBG R1,V1,1            test instruction
000017E6  E310 8F20 0024                 00001120   1022+         STG   R1,R1OUTPUT        save
000017EC  B98D 0020                                 1023+         EPSW  R2,R0              exptract psw
000017F0  5020 8ED8                      000010D8   1024+         ST    R2,CCPSW               to save CC
000017F4  07FB                                      1025+         BR    R11                return
000017F8                                            1026+RE19     DC    0F
000017F8                                            1027+         DROP  R5
000017F8  00000000 0000000A                         1028          DC    XL08'000000000000000A'                    R1 result
00001800  00000000 00000000                         1029          DC    XL16'0000000000000000000000000000010C'   V1 source
00001808  00000000 0000010C
                                                    1030
                                                    1031          VRR_I VCVBG,1,0
00001810                                            1032+         DS    0FD
00001810                          00001810          1033+         USING *,R5               base for test data and test routine
00001810  0000182C                                  1034+T20      DC    A(X20)             address of test routine
00001814  0014                                      1035+         DC    H'20'              test number
00001816  00                                        1036+         DC    XL1'00'
00001817  01                                        1037+         DC    HL1'1'             &M3
00001818  00                                        1038+         DC    HL1'0'             cc
00001819  07                                        1039+         DC    HL1'7'             cc failed mask
0000181A  E5C3E5C2 C7404040                         1040+         DC    CL8'VCVBG'         instruction name
00001824  00000010                                  1041+         DC    A(16)              result length
00001828  00001850                                  1042+REA20    DC    A(RE20)            result address
                                                    1043+*                                 INSTRUCTION UNDER TEST ROUTINE
0000182C                                            1044+X20      DS    0F
0000182C  E310 8EE8 0004                 000010E8   1045+         LG    R1,R1FUDGE         pollute R1
00001832  E710 5048 0006                 00001858   1046+         VL    V1,RE20+8          get V1 source
00001838  E611 0010 0052                            1047+         VCVBG R1,V1,1            test instruction
0000183E  E310 8F20 0024                 00001120   1048+         STG   R1,R1OUTPUT        save
00001844  B98D 0020                                 1049+         EPSW  R2,R0              exptract psw
00001848  5020 8ED8                      000010D8   1050+         ST    R2,CCPSW               to save CC
0000184C  07FB                                      1051+         BR    R11                return
```

```
  LOC        OBJECT CODE       ADDR1     ADDR2     STMT
00001850                                           1052+RE20     DC    0F
00001850                                           1053+         DROP  R5
00001850  FFFFFFFF FFFFFFF6                        1054          DC    XL08'FFFFFFFFFFFFFFF6'                    R1 result
00001858  00000000 00000000                        1055          DC    XL16'0000000000000000000000000000010D'    V1 source
00001860  00000000 0000010D
                                                   1056
                                                   1057          VRR_I VCVBG,1,0
00001868                                           1058+         DS    0FD
00001868                     00001868              1059+         USING *,R5              base for test data and test routine
00001868  00001884                                 1060+T21      DC    A(X21)            address of test routine
0000186C  0015                                     1061+         DC    H'21'             test number
0000186E  00                                       1062+         DC    XL1'00'
0000186F  01                                       1063+         DC    HL1'1'            &M3
00001870  00                                       1064+         DC    HL1'0'            cc
00001871  07                                       1065+         DC    HL1'7'            cc failed mask
00001872  E5C3E5C2 C7404040                        1066+         DC    CL8'VCVBG'        instruction name
0000187C  00000010                                 1067+         DC    A(16)             result length
00001880  000018A8                                 1068+REA21    DC    A(RE21)           result address
                                                   1069+*                                INSTRUCTION UNDER TEST ROUTINE
00001884                                           1070+X21      DS    0F
00001884  E310 8EE8 0004                 000010E8  1071+         LG    R1,R1FUDGE        pollute R1
0000188A  E710 5048 0006                 000018B0  1072+         VL    V1,RE21+8         get V1 source
00001890  E611 0010 0052                           1073+         VCVBG R1,V1,1           test instruction
00001896  E310 8F20 0024                 00001120  1074+         STG   R1,R1OUTPUT       save
0000189C  B98D 0020                                1075+         EPSW  R2,R0             exptract psw
000018A0  5020 8ED8                      000010D8  1076+         ST    R2,CCPSW              to save CC
000018A4  07FB                                     1077+         BR    R11               return
000018A8                                           1078+RE21     DC    0F
000018A8                                           1079+         DROP  R5
000018A8  00000000 0008A160                        1080          DC    XL08'000000000008A160'                    R1 result
000018B0  00000000 00000000                        1081          DC    XL16'0000000000000000000000000565600C'    V1 source
000018B8  00000000 0565600C
                                                   1082
                                                   1083          VRR_I VCVBG,1,0
000018C0                                           1084+         DS    0FD
000018C0                     000018C0              1085+         USING *,R5              base for test data and test routine
000018C0  000018DC                                 1086+T22      DC    A(X22)            address of test routine
000018C4  0016                                     1087+         DC    H'22'             test number
000018C6  00                                       1088+         DC    XL1'00'
000018C7  01                                       1089+         DC    HL1'1'            &M3
000018C8  00                                       1090+         DC    HL1'0'            cc
000018C9  07                                       1091+         DC    HL1'7'            cc failed mask
000018CA  E5C3E5C2 C7404040                        1092+         DC    CL8'VCVBG'        instruction name
000018D4  00000010                                 1093+         DC    A(16)             result length
000018D8  00001900                                 1094+REA22    DC    A(RE22)           result address
                                                   1095+*                                INSTRUCTION UNDER TEST ROUTINE
000018DC                                           1096+X22      DS    0F
000018DC  E310 8EE8 0004                 000010E8  1097+         LG    R1,R1FUDGE        pollute R1
000018E2  E710 5048 0006                 00001908  1098+         VL    V1,RE22+8         get V1 source
000018E8  E611 0010 0052                           1099+         VCVBG R1,V1,1           test instruction
000018EE  E310 8F20 0024                 00001120  1100+         STG   R1,R1OUTPUT       save
000018F4  B98D 0020                                1101+         EPSW  R2,R0             exptract psw
000018F8  5020 8ED8                      000010D8  1102+         ST    R2,CCPSW              to save CC
000018FC  07FB                                     1103+         BR    R11               return
00001900                                           1104+RE22     DC    0F
00001900                                           1105+         DROP  R5
```

```
  LOC        OBJECT CODE       ADDR1     ADDR2     STMT
00001900  FFFFFFFF FFF75EA0                        1106           DC    XL08'FFFFFFFFFFF75EA0'                    R1 result
00001908  00000000 00000000                        1107           DC    XL16'0000000000000000000000000565600D'    V1 source
00001910  00000000 0565600D
                                                   1108
                                                   1109           VRR_I VCVBG,1,0                                 INT_MAX
00001918                                           1110+          DS    0FD
00001918                     00001918              1111+          USING *,R5              base for test data and test routine
00001918  00001934                                 1112+T23       DC    A(X23)            address of test routine
0000191C  0017                                     1113+          DC    H'23'             test number
0000191E  00                                       1114+          DC    XL1'00'
0000191F  01                                       1115+          DC    HL1'1'            &M3
00001920  00                                       1116+          DC    HL1'0'            cc
00001921  07                                       1117+          DC    HL1'7'            cc failed mask
00001922  E5C3E5C2 C7404040                        1118+          DC    CL8'VCVBG'        instruction name
0000192C  00000010                                 1119+          DC    A(16)             result length
00001930  00001958                                 1120+REA23     DC    A(RE23)           result address
                                                   1121+*                                 INSTRUCTION UNDER TEST ROUTINE
00001934                                           1122+X23       DS    0F
00001934  E310 8EE8 0004               000010E8    1123+          LG    R1,R1FUDGE        pollute R1
0000193A  E710 5048 0006               00001960    1124+          VL    V1,RE23+8         get V1 source
00001940  E611 0010 0052                           1125+          VCVBG R1,V1,1           test instruction
00001946  E310 8F20 0024               00001120    1126+          STG   R1,R1OUTPUT       save
0000194C  B98D 0020                                1127+          EPSW  R2,R0             exptract psw
00001950  5020 8ED8                    000010D8    1128+          ST    R2,CCPSW              to save CC
00001954  07FB                                     1129+          BR    R11               return
00001958                                           1130+RE23      DC    0F
00001958                                           1131+          DROP  R5
00001958  00000000 7FFFFFFF                        1132           DC    XL08'000000007FFFFFFF'                    R1 result
00001960  00000000 00000000                        1133           DC    XL16'0000000000000000000000002147483647C' V1 source
00001968  00000214 7483647C
                                                   1134
                                                   1135           VRR_I VCVBG,1,0                                 INT_MIN
00001970                                           1136+          DS    0FD
00001970                     00001970              1137+          USING *,R5              base for test data and test routine
00001970  0000198C                                 1138+T24       DC    A(X24)            address of test routine
00001974  0018                                     1139+          DC    H'24'             test number
00001976  00                                       1140+          DC    XL1'00'
00001977  01                                       1141+          DC    HL1'1'            &M3
00001978  00                                       1142+          DC    HL1'0'            cc
00001979  07                                       1143+          DC    HL1'7'            cc failed mask
0000197A  E5C3E5C2 C7404040                        1144+          DC    CL8'VCVBG'        instruction name
00001984  00000010                                 1145+          DC    A(16)             result length
00001988  000019B0                                 1146+REA24     DC    A(RE24)           result address
                                                   1147+*                                 INSTRUCTION UNDER TEST ROUTINE
0000198C                                           1148+X24       DS    0F
0000198C  E310 8EE8 0004               000010E8    1149+          LG    R1,R1FUDGE        pollute R1
00001992  E710 5048 0006               000019B8    1150+          VL    V1,RE24+8         get V1 source
00001998  E611 0010 0052                           1151+          VCVBG R1,V1,1           test instruction
0000199E  E310 8F20 0024               00001120    1152+          STG   R1,R1OUTPUT       save
000019A4  B98D 0020                                1153+          EPSW  R2,R0             exptract psw
000019A8  5020 8ED8                    000010D8    1154+          ST    R2,CCPSW              to save CC
000019AC  07FB                                     1155+          BR    R11               return
000019B0                                           1156+RE24      DC    0F
000019B0                                           1157+          DROP  R5
000019B0  FFFFFFFF 80000000                        1158           DC    XL08'FFFFFFFF80000000'                    R1 result
000019B8  00000000 00000000                        1159           DC    XL16'0000000000000000000000002147483648D' V1 source
```

```
  LOC        OBJECT CODE       ADDR1     ADDR2     STMT
000019C0  00000214 7483648D                          1160
                                                     1161          VRR_I VCVBG,1,0                                 UINT_MAX
000019C8                                             1162+         DS    0FD
000019C8                        000019C8             1163+         USING *,R5              base for test data and test routine
000019C8  000019E4                                   1164+T25      DC    A(X25)            address of test routine
000019CC  0019                                       1165+         DC    H'25'             test number
000019CE  00                                         1166+         DC    XL1'00'
000019CF  01                                         1167+         DC    HL1'1'            &M3
000019D0  00                                         1168+         DC    HL1'0'            cc
000019D1  07                                         1169+         DC    HL1'7'            cc failed mask
000019D2  E5C3E5C2 C7404040                          1170+         DC    CL8'VCVBG'        instruction name
000019DC  00000010                                   1171+         DC    A(16)             result length
000019E0  00001A08                                   1172+REA25    DC    A(RE25)           result address
                                                     1173+*                                INSTRUCTION UNDER TEST ROUTINE
000019E4                                             1174+X25      DS    0F
000019E4  E310 8EE8 0004                 000010E8    1175+         LG    R1,R1FUDGE        pollute R1
000019EA  E710 5048 0006                 00001A10    1176+         VL    V1,RE25+8         get V1 source
000019F0  E611 0010 0052                             1177+         VCVBG R1,V1,1           test instruction
000019F6  E310 8F20 0024                 00001120    1178+         STG   R1,R1OUTPUT       save
000019FC  B98D 0020                                  1179+         EPSW  R2,R0             exptract psw
00001A00  5020 8ED8                      000010D8    1180+         ST    R2,CCPSW              to save CC
00001A04  07FB                                       1181+         BR    R11               return
00001A08                                             1182+RE25     DC    0F
00001A08                                             1183+         DROP  R5
00001A08  00000000 FFFFFFFF                          1184          DC    XL08'00000000FFFFFFFF'                    R1 result
00001A10  00000000 00000000                          1185          DC    XL16'0000000000000000000004294967295C'    V1 source
00001A18  00000429 4967295C
                                                     1186
                                                     1187          VRR_I VCVBG,1,0                                 UINT_MAX +1
00001A20                                             1188+         DS    0FD
00001A20                        00001A20             1189+         USING *,R5              base for test data and test routine
00001A20  00001A3C                                   1190+T26      DC    A(X26)            address of test routine
00001A24  001A                                       1191+         DC    H'26'             test number
00001A26  00                                         1192+         DC    XL1'00'
00001A27  01                                         1193+         DC    HL1'1'            &M3
00001A28  00                                         1194+         DC    HL1'0'            cc
00001A29  07                                         1195+         DC    HL1'7'            cc failed mask
00001A2A  E5C3E5C2 C7404040                          1196+         DC    CL8'VCVBG'        instruction name
00001A34  00000010                                   1197+         DC    A(16)             result length
00001A38  00001A60                                   1198+REA26    DC    A(RE26)           result address
                                                     1199+*                                INSTRUCTION UNDER TEST ROUTINE
00001A3C                                             1200+X26      DS    0F
00001A3C  E310 8EE8 0004                 000010E8    1201+         LG    R1,R1FUDGE        pollute R1
00001A42  E710 5048 0006                 00001A68    1202+         VL    V1,RE26+8         get V1 source
00001A48  E611 0010 0052                             1203+         VCVBG R1,V1,1           test instruction
00001A4E  E310 8F20 0024                 00001120    1204+         STG   R1,R1OUTPUT       save
00001A54  B98D 0020                                  1205+         EPSW  R2,R0             exptract psw
00001A58  5020 8ED8                      000010D8    1206+         ST    R2,CCPSW              to save CC
00001A5C  07FB                                       1207+         BR    R11               return
00001A60                                             1208+RE26     DC    0F
00001A60                                             1209+         DROP  R5
00001A60  00000001 00000000                          1210          DC    XL08'0000000100000000'                    R1 result
00001A68  00000000 00000000                          1211          DC    XL16'0000000000000000000004294967296C'    V1 source
00001A70  00000429 4967296C
                                                     1212
```

```
  LOC        OBJECT CODE       ADDR1     ADDR2     STMT

                                                   1213           VRR_I VCVBG,1,0
00001A78                                           1214+          DS    0FD
00001A78                       00001A78            1215+          USING *,R5              base for test data and test routine
00001A78  00001A94                                 1216+T27       DC    A(X27)            address of test routine
00001A7C  001B                                     1217+          DC    H'27'             test number
00001A7E  00                                       1218+          DC    XL1'00'
00001A7F  01                                       1219+          DC    HL1'1'            &M3
00001A80  00                                       1220+          DC    HL1'0'            cc
00001A81  07                                       1221+          DC    HL1'7'            cc failed mask
00001A82  E5C3E5C2 C7404040                        1222+          DC    CL8'VCVBG'        instruction name
00001A8C  00000010                                 1223+          DC    A(16)             result length
00001A90  00001AB8                                 1224+REA27     DC    A(RE27)           result address
                                                   1225+*                                 INSTRUCTION UNDER TEST ROUTINE
00001A94                                           1226+X27       DS    0F
00001A94  E310 8EE8 0004              000010E8     1227+          LG    R1,R1FUDGE        pollute R1
00001A9A  E710 5048 0006              00001AC0     1228+          VL    V1,RE27+8         get V1 source
00001AA0  E611 0010 0052                           1229+          VCVBG R1,V1,1           test instruction
00001AA6  E310 8F20 0024              00001120     1230+          STG   R1,R1OUTPUT       save
00001AAC  B98D 0020                                1231+          EPSW  R2,R0             exptract psw
00001AB0  5020 8ED8                   000010D8     1232+          ST    R2,CCPSW              to save CC
00001AB4  07FB                                     1233+          BR    R11               return
00001AB8                                           1234+RE27      DC    0F
00001AB8                                           1235+          DROP  R5
00001AB8  00000002 DF8E1660                        1236           DC    XL08'00000002DF8E1660'                    R1 result
00001AC0  00000000 00000000                        1237           DC    XL16'00000000000000000000012340565600C'   V1 source
00001AC8  00001234 0565600C
                                                   1238
                                                   1239           VRR_I VCVBG,1,0                                 LONG_MAX
00001AD0                                           1240+          DS    0FD
00001AD0                       00001AD0            1241+          USING *,R5              base for test data and test routine
00001AD0  00001AEC                                 1242+T28       DC    A(X28)            address of test routine
00001AD4  001C                                     1243+          DC    H'28'             test number
00001AD6  00                                       1244+          DC    XL1'00'
00001AD7  01                                       1245+          DC    HL1'1'            &M3
00001AD8  00                                       1246+          DC    HL1'0'            cc
00001AD9  07                                       1247+          DC    HL1'7'            cc failed mask
00001ADA  E5C3E5C2 C7404040                        1248+          DC    CL8'VCVBG'        instruction name
00001AE4  00000010                                 1249+          DC    A(16)             result length
00001AE8  00001B10                                 1250+REA28     DC    A(RE28)           result address
                                                   1251+*                                 INSTRUCTION UNDER TEST ROUTINE
00001AEC                                           1252+X28       DS    0F
00001AEC  E310 8EE8 0004              000010E8     1253+          LG    R1,R1FUDGE        pollute R1
00001AF2  E710 5048 0006              00001B18     1254+          VL    V1,RE28+8         get V1 source
00001AF8  E611 0010 0052                           1255+          VCVBG R1,V1,1           test instruction
00001AFE  E310 8F20 0024              00001120     1256+          STG   R1,R1OUTPUT       save
00001B04  B98D 0020                                1257+          EPSW  R2,R0             exptract psw
00001B08  5020 8ED8                   000010D8     1258+          ST    R2,CCPSW              to save CC
00001B0C  07FB                                     1259+          BR    R11               return
00001B10                                           1260+RE28      DC    0F
00001B10                                           1261+          DROP  R5
00001B10  7FFFFFFF FFFFFFFF                        1262           DC    XL08'7FFFFFFFFFFFFFFF'                    R1 result
00001B18  00000000 00009223                        1263           DC    XL16'00000000000092233720368547758070'    V1 source
00001B20  37203685 4775807C
                                                   1264
                                                   1265           VRR_I VCVBG,1,0                                 LONG_MIN
00001B28                                           1266+          DS    0FD
```

```
  LOC        OBJECT CODE       ADDR1     ADDR2     STMT

00001B28                     00001B28              1267+         USING *,R5              base for test data and test routine
00001B28  00001B44                                 1268+T29      DC    A(X29)            address of test routine
00001B2C  001D                                     1269+         DC    H'29'             test number
00001B2E  00                                       1270+         DC    XL1'00'
00001B2F  01                                       1271+         DC    HL1'1'            &M3
00001B30  00                                       1272+         DC    HL1'0'            cc
00001B31  07                                       1273+         DC    HL1'7'            cc failed mask
00001B32  E5C3E5C2 C7404040                        1274+         DC    CL8'VCVBG'        instruction name
00001B3C  00000010                                 1275+         DC    A(16)             result length
00001B40  00001B68                                 1276+REA29    DC    A(RE29)           result address
                                                   1277+*                                  INSTRUCTION UNDER TEST ROUTINE
00001B44                                           1278+X29      DS    0F
00001B44  E310 8EE8 0004               000010E8    1279+         LG    R1,R1FUDGE        pollute R1
00001B4A  E710 5048 0006               00001B70    1280+         VL    V1,RE29+8         get V1 source
00001B50  E611 0010 0052                           1281+         VCVBG R1,V1,1           test instruction
00001B56  E310 8F20 0024               00001120    1282+         STG   R1,R1OUTPUT       save
00001B5C  B98D 0020                                1283+         EPSW  R2,R0             exptract psw
00001B60  5020 8ED8                    000010D8    1284+         ST    R2,CCPSW              to save CC
00001B64  07FB                                     1285+         BR    R11               return
00001B68                                           1286+RE29     DC    0F
00001B68                                           1287+         DROP  R5
00001B68  80000000 00000000                        1288          DC    XL08'8000000000000000'                    R1 result
00001B70  00000000 00009223                        1289          DC    XL16'00000000000092233720368547758080'    V1 source
00001B78  37203685 4775808D
                                                   1290
                                                   1291          VRR_I VCVBG,3,0                                 ULONG_MAX
00001B80                                           1292+         DS    0FD
00001B80                     00001B80              1293+         USING *,R5              base for test data and test routine
00001B80  00001B9C                                 1294+T30      DC    A(X30)            address of test routine
00001B84  001E                                     1295+         DC    H'30'             test number
00001B86  00                                       1296+         DC    XL1'00'
00001B87  03                                       1297+         DC    HL1'3'            &M3
00001B88  00                                       1298+         DC    HL1'0'            cc
00001B89  07                                       1299+         DC    HL1'7'            cc failed mask
00001B8A  E5C3E5C2 C7404040                        1300+         DC    CL8'VCVBG'        instruction name
00001B94  00000010                                 1301+         DC    A(16)             result length
00001B98  00001BC0                                 1302+REA30    DC    A(RE30)           result address
                                                   1303+*                                  INSTRUCTION UNDER TEST ROUTINE
00001B9C                                           1304+X30      DS    0F
00001B9C  E310 8EE8 0004               000010E8    1305+         LG    R1,R1FUDGE        pollute R1
00001BA2  E710 5048 0006               00001BC8    1306+         VL    V1,RE30+8         get V1 source
00001BA8  E611 0030 0052                           1307+         VCVBG R1,V1,3           test instruction
00001BAE  E310 8F20 0024               00001120    1308+         STG   R1,R1OUTPUT       save
00001BB4  B98D 0020                                1309+         EPSW  R2,R0             exptract psw
00001BB8  5020 8ED8                    000010D8    1310+         ST    R2,CCPSW              to save CC
00001BBC  07FB                                     1311+         BR    R11               return
00001BC0                                           1312+RE30     DC    0F
00001BC0                                           1313+         DROP  R5
00001BC0  FFFFFFFF FFFFFFFF                        1314          DC    XL08'FFFFFFFFFFFFFFFF'                    R1 result
00001BC8  00000000 00018446                        1315          DC    XL16'0000000000018446744073709551615C'    V1 source
00001BD0  74407370 9551615C
                                                   1316
                                                   1317          VRR_I VCVBG,3,3                                 ULONG_MAX +1
00001BD8                                           1318+         DS    0FD
00001BD8                     00001BD8              1319+         USING *,R5              base for test data and test routine
00001BD8  00001BF4                                 1320+T31      DC    A(X31)            address of test routine
```

```
  LOC        OBJECT CODE       ADDR1     ADDR2     STMT

00001BDC  001F                                    1321+          DC    H'31'              test number
00001BDE  00                                      1322+          DC    XL1'00'
00001BDF  03                                      1323+          DC    HL1'3'             &M3
00001BE0  03                                      1324+          DC    HL1'3'             cc
00001BE1  0E                                      1325+          DC    HL1'14'            cc failed mask
00001BE2  E5C3E5C2 C7404040                       1326+          DC    CL8'VCVBG'         instruction name
00001BEC  00000010                                1327+          DC    A(16)              result length
00001BF0  00001C18                                1328+REA31     DC    A(RE31)            result address
                                                  1329+*                                  INSTRUCTION UNDER TEST ROUTINE
00001BF4                                          1330+X31       DS    0F
00001BF4  E310 8EE8 0004                 000010E8 1331+          LG    R1,R1FUDGE         pollute R1
00001BFA  E710 5048 0006                 00001C20 1332+          VL    V1,RE31+8          get V1 source
00001C00  E611 0030 0052                          1333+          VCVBG R1,V1,3            test instruction
00001C06  E310 8F20 0024                 00001120 1334+          STG   R1,R1OUTPUT        save
00001C0C  B98D 0020                               1335+          EPSW  R2,R0              exptract psw
00001C10  5020 8ED8                      000010D8 1336+          ST    R2,CCPSW                to save CC
00001C14  07FB                                    1337+          BR    R11                return
00001C18                                          1338+RE31      DC    0F
00001C18                                          1339+          DROP  R5
00001C18  00000000 00000000                       1340           DC    XL08'0000000000000000'                    R1 result
00001C20  00000000 00018446                       1341           DC    XL16'00000000000184467440737095516l6C'    V1 source
00001C28  74407370 9551616C
                                                  1342
                                                  1343           VRR_I VCVBG,3,3                                 ULONG_MAX +11
00001C30                                          1344+          DS    0FD
00001C30                         00001C30         1345+          USING *,R5               base for test data and test routine
00001C30  00001C4C                                1346+T32       DC    A(X32)             address of test routine
00001C34  0020                                    1347+          DC    H'32'              test number
00001C36  00                                      1348+          DC    XL1'00'
00001C37  03                                      1349+          DC    HL1'3'             &M3
00001C38  03                                      1350+          DC    HL1'3'             cc
00001C39  0E                                      1351+          DC    HL1'14'            cc failed mask
00001C3A  E5C3E5C2 C7404040                       1352+          DC    CL8'VCVBG'         instruction name
00001C44  00000010                                1353+          DC    A(16)              result length
00001C48  00001C70                                1354+REA32     DC    A(RE32)            result address
                                                  1355+*                                  INSTRUCTION UNDER TEST ROUTINE
00001C4C                                          1356+X32       DS    0F
00001C4C  E310 8EE8 0004                 000010E8 1357+          LG    R1,R1FUDGE         pollute R1
00001C52  E710 5048 0006                 00001C78 1358+          VL    V1,RE32+8          get V1 source
00001C58  E611 0030 0052                          1359+          VCVBG R1,V1,3            test instruction
00001C5E  E310 8F20 0024                 00001120 1360+          STG   R1,R1OUTPUT        save
00001C64  B98D 0020                               1361+          EPSW  R2,R0              exptract psw
00001C68  5020 8ED8                      000010D8 1362+          ST    R2,CCPSW                to save CC
00001C6C  07FB                                    1363+          BR    R11                return
00001C70                                          1364+RE32      DC    0F
00001C70                                          1365+          DROP  R5
00001C70  00000000 0000000A                       1366           DC    XL08'000000000000000A'                    R1 result
00001C78  00000000 00018446                       1367           DC    XL16'00000000000184467440737095516l6C'    V1 source
00001C80  74407370 9551626C
                                                  1368
                                                  1369 * VCVBG simple: p2=1
                                                  1370           VRR_I VCVBG,9,0
00001C88                                          1371+          DS    0FD
00001C88                         00001C88         1372+          USING *,R5               base for test data and test routine
00001C88  00001CA4                                1373+T33       DC    A(X33)             address of test routine
00001C8C  0021                                    1374+          DC    H'33'              test number
```

```
  LOC        OBJECT CODE       ADDR1     ADDR2     STMT

00001C8E  00                                       1375+          DC    XL1'00'
00001C8F  09                                       1376+          DC    HL1'9'             &M3
00001C90  00                                       1377+          DC    HL1'0'             cc
00001C91  07                                       1378+          DC    HL1'7'             cc failed mask
00001C92  E5C3E5C2 C7404040                        1379+          DC    CL8'VCVBG'         instruction name
00001C9C  00000010                                 1380+          DC    A(16)              result length
00001CA0  00001CC8                                 1381+REA33     DC    A(RE33)            result address
                                                   1382+*                                  INSTRUCTION UNDER TEST ROUTINE
00001CA4                                           1383+X33       DS    0F
00001CA4  E310 8EE8 0004                 000010E8  1384+          LG    R1,R1FUDGE         pollute R1
00001CAA  E710 5048 0006                 00001CD0  1385+          VL    V1,RE33+8          get V1 source
00001CB0  E611 0090 0052                           1386+          VCVBG R1,V1,9            test instruction
00001CB6  E310 8F20 0024                 00001120  1387+          STG   R1,R1OUTPUT        save
00001CBC  B98D 0020                                1388+          EPSW  R2,R0              exptract psw
00001CC0  5020 8ED8                      000010D8  1389+          ST    R2,CCPSW                to save CC
00001CC4  07FB                                     1390+          BR    R11                return
00001CC8                                           1391+RE33      DC    0F
00001CC8                                           1392+          DROP  R5
00001CC8  00000000 0000000A                        1393           DC    XL08'000000000000000A'                    R1 result
00001CD0  00000000 00000000                        1394           DC    XL16'00000000000000000000000000000010C'   V1 source
00001CD8  00000000 0000010C
                                                   1395
                                                   1396           VRR_I VCVBG,9,0
00001CE0                                           1397+          DS    0FD
00001CE0                         00001CE0          1398+          USING *,R5               base for test data and test routine
00001CE0  00001CFC                                 1399+T34       DC    A(X34)             address of test routine
00001CE4  0022                                     1400+          DC    H'34'              test number
00001CE6  00                                       1401+          DC    XL1'00'
00001CE7  09                                       1402+          DC    HL1'9'             &M3
00001CE8  00                                       1403+          DC    HL1'0'             cc
00001CE9  07                                       1404+          DC    HL1'7'             cc failed mask
00001CEA  E5C3E5C2 C7404040                        1405+          DC    CL8'VCVBG'         instruction name
00001CF4  00000010                                 1406+          DC    A(16)              result length
00001CF8  00001D20                                 1407+REA34     DC    A(RE34)            result address
                                                   1408+*                                  INSTRUCTION UNDER TEST ROUTINE
00001CFC                                           1409+X34       DS    0F
00001CFC  E310 8EE8 0004                 000010E8  1410+          LG    R1,R1FUDGE         pollute R1
00001D02  E710 5048 0006                 00001D28  1411+          VL    V1,RE34+8          get V1 source
00001D08  E611 0090 0052                           1412+          VCVBG R1,V1,9            test instruction
00001D0E  E310 8F20 0024                 00001120  1413+          STG   R1,R1OUTPUT        save
00001D14  B98D 0020                                1414+          EPSW  R2,R0              exptract psw
00001D18  5020 8ED8                      000010D8  1415+          ST    R2,CCPSW                to save CC
00001D1C  07FB                                     1416+          BR    R11                return
00001D20                                           1417+RE34      DC    0F
00001D20                                           1418+          DROP  R5
00001D20  00000000 0000000A                        1419           DC    XL08'000000000000000A'                    R1 result
00001D28  00000000 00000000                        1420           DC    XL16'00000000000000000000000000000010D'   V1 source
00001D30  00000000 0000010D
                                                   1421
                                                   1422           VRR_I VCVBG,9,0
00001D38                                           1423+          DS    0FD
00001D38                         00001D38          1424+          USING *,R5               base for test data and test routine
00001D38  00001D54                                 1425+T35       DC    A(X35)             address of test routine
00001D3C  0023                                     1426+          DC    H'35'              test number
00001D3E  00                                       1427+          DC    XL1'00'
00001D3F  09                                       1428+          DC    HL1'9'             &M3
```

```
  LOC        OBJECT CODE       ADDR1     ADDR2     STMT

00001D40  00                                       1429+          DC    HL1'0'             cc
00001D41  07                                       1430+          DC    HL1'7'             cc failed mask
00001D42  E5C3E5C2 C7404040                        1431+          DC    CL8'VCVBG'         instruction name
00001D4C  00000010                                 1432+          DC    A(16)              result length
00001D50  00001D78                                 1433+REA35     DC    A(RE35)            result address
                                                   1434+*                                  INSTRUCTION UNDER TEST ROUTINE
00001D54                                           1435+X35       DS    0F
00001D54  E310 8EE8 0004                 000010E8  1436+          LG    R1,R1FUDGE         pollute R1
00001D5A  E710 5048 0006                 00001D80  1437+          VL    V1,RE35+8          get V1 source
00001D60  E611 0090 0052                           1438+          VCVBG R1,V1,9            test instruction
00001D66  E310 8F20 0024                 00001120  1439+          STG   R1,R1OUTPUT        save
00001D6C  B98D 0020                                1440+          EPSW  R2,R0              exptract psw
00001D70  5020 8ED8                      000010D8  1441+          ST    R2,CCPSW               to save CC
00001D74  07FB                                     1442+          BR    R11                return
00001D78                                           1443+RE35      DC    0F
00001D78                                           1444+          DROP  R5
00001D78  00000000 0008A160                        1445           DC    XL08'000000000008A160'                    R1 result
00001D80  00000000 00000000                        1446           DC    XL16'0000000000000000000000000565600C'    V1 source
00001D88  00000000 0565600C
                                                   1447
                                                   1448           VRR_I VCVBG,9,0
00001D90                                           1449+          DS    0FD
00001D90                         00001D90          1450+          USING *,R5               base for test data and test routine
00001D90  00001DAC                                 1451+T36       DC    A(X36)             address of test routine
00001D94  0024                                     1452+          DC    H'36'              test number
00001D96  00                                       1453+          DC    XL1'00'
00001D97  09                                       1454+          DC    HL1'9'             &M3
00001D98  00                                       1455+          DC    HL1'0'             cc
00001D99  07                                       1456+          DC    HL1'7'             cc failed mask
00001D9A  E5C3E5C2 C7404040                        1457+          DC    CL8'VCVBG'         instruction name
00001DA4  00000010                                 1458+          DC    A(16)              result length
00001DA8  00001DD0                                 1459+REA36     DC    A(RE36)            result address
                                                   1460+*                                  INSTRUCTION UNDER TEST ROUTINE
00001DAC                                           1461+X36       DS    0F
00001DAC  E310 8EE8 0004                 000010E8  1462+          LG    R1,R1FUDGE         pollute R1
00001DB2  E710 5048 0006                 00001DD8  1463+          VL    V1,RE36+8          get V1 source
00001DB8  E611 0090 0052                           1464+          VCVBG R1,V1,9            test instruction
00001DBE  E310 8F20 0024                 00001120  1465+          STG   R1,R1OUTPUT        save
00001DC4  B98D 0020                                1466+          EPSW  R2,R0              exptract psw
00001DC8  5020 8ED8                      000010D8  1467+          ST    R2,CCPSW               to save CC
00001DCC  07FB                                     1468+          BR    R11                return
00001DD0                                           1469+RE36      DC    0F
00001DD0                                           1470+          DROP  R5
00001DD0  00000000 0008A160                        1471           DC    XL08'000000000008A160'                    R1 result
00001DD8  00000000 00000000                        1472           DC    XL16'0000000000000000000000000565600D'    V1 source
00001DE0  00000000 0565600D
                                                   1473
                                                   1474           VRR_I VCVBG,9,0                                 INT_MAX
00001DE8                                           1475+          DS    0FD
00001DE8                         00001DE8          1476+          USING *,R5               base for test data and test routine
00001DE8  00001E04                                 1477+T37       DC    A(X37)             address of test routine
00001DEC  0025                                     1478+          DC    H'37'              test number
00001DEE  00                                       1479+          DC    XL1'00'
00001DEF  09                                       1480+          DC    HL1'9'             &M3
00001DF0  00                                       1481+          DC    HL1'0'             cc
00001DF1  07                                       1482+          DC    HL1'7'             cc failed mask
```

```
  LOC        OBJECT CODE       ADDR1     ADDR2     STMT

00001DF2  E5C3E5C2 C7404040                        1483+          DC    CL8'VCVBG'          instruction name
00001DFC  00000010                                 1484+          DC    A(16)               result length
00001E00  00001E28                                 1485+REA37     DC    A(RE37)             result address
                                                   1486+*                                   INSTRUCTION UNDER TEST ROUTINE
00001E04                                           1487+X37       DS    0F
00001E04  E310 8EE8 0004                 000010E8  1488+          LG    R1,R1FUDGE          pollute R1
00001E0A  E710 5048 0006                 00001E30  1489+          VL    V1,RE37+8           get V1 source
00001E10  E611 0090 0052                           1490+          VCVBG R1,V1,9             test instruction
00001E16  E310 8F20 0024                 00001120  1491+          STG   R1,R1OUTPUT         save
00001E1C  B98D 0020                                1492+          EPSW  R2,R0               exptract psw
00001E20  5020 8ED8                      000010D8  1493+          ST    R2,CCPSW                to save CC
00001E24  07FB                                     1494+          BR    R11                 return
00001E28                                           1495+RE37      DC    0F
00001E28                                           1496+          DROP  R5
00001E28  00000000 7FFFFFFF                        1497           DC    XL08'000000007FFFFFFF'                        R1 result
00001E30  00000000 00000000                        1498           DC    XL16'0000000000000000000002147483647C'        V1 source
00001E38  00000214 7483647C
                                                   1499
                                                   1500           VRR_I VCVBG,9,0                                     INT_MIN
00001E40                                           1501+          DS    0FD
00001E40                         00001E40          1502+          USING *,R5                base for test data and test routine
00001E40  00001E5C                                 1503+T38       DC    A(X38)              address of test routine
00001E44  0026                                     1504+          DC    H'38'               test number
00001E46  00                                       1505+          DC    XL1'00'
00001E47  09                                       1506+          DC    HL1'9'              &M3
00001E48  00                                       1507+          DC    HL1'0'              cc
00001E49  07                                       1508+          DC    HL1'7'              cc failed mask
00001E4A  E5C3E5C2 C7404040                        1509+          DC    CL8'VCVBG'          instruction name
00001E54  00000010                                 1510+          DC    A(16)               result length
00001E58  00001E80                                 1511+REA38     DC    A(RE38)             result address
                                                   1512+*                                   INSTRUCTION UNDER TEST ROUTINE
00001E5C                                           1513+X38       DS    0F
00001E5C  E310 8EE8 0004                 000010E8  1514+          LG    R1,R1FUDGE          pollute R1
00001E62  E710 5048 0006                 00001E88  1515+          VL    V1,RE38+8           get V1 source
00001E68  E611 0090 0052                           1516+          VCVBG R1,V1,9             test instruction
00001E6E  E310 8F20 0024                 00001120  1517+          STG   R1,R1OUTPUT         save
00001E74  B98D 0020                                1518+          EPSW  R2,R0               exptract psw
00001E78  5020 8ED8                      000010D8  1519+          ST    R2,CCPSW                to save CC
00001E7C  07FB                                     1520+          BR    R11                 return
00001E80                                           1521+RE38      DC    0F
00001E80                                           1522+          DROP  R5
00001E80  00000000 80000000                        1523           DC    XL08'0000000080000000'                        R1 result
00001E88  00000000 00000000                        1524           DC    XL16'0000000000000000000002147483648D'        V1 source
00001E90  00000214 7483648D
                                                   1525
                                                   1526           VRR_I VCVBG,9,0                                     UINT_MAX
00001E98                                           1527+          DS    0FD
00001E98                         00001E98          1528+          USING *,R5                base for test data and test routine
00001E98  00001EB4                                 1529+T39       DC    A(X39)              address of test routine
00001E9C  0027                                     1530+          DC    H'39'               test number
00001E9E  00                                       1531+          DC    XL1'00'
00001E9F  09                                       1532+          DC    HL1'9'              &M3
00001EA0  00                                       1533+          DC    HL1'0'              cc
00001EA1  07                                       1534+          DC    HL1'7'              cc failed mask
00001EA2  E5C3E5C2 C7404040                        1535+          DC    CL8'VCVBG'          instruction name
00001EAC  00000010                                 1536+          DC    A(16)               result length
```

```
  LOC        OBJECT CODE       ADDR1     ADDR2     STMT
00001EB0  00001ED8                        1537+REA39    DC    A(RE39)           result address
                                          1538+*                                INSTRUCTION UNDER TEST ROUTINE
00001EB4                                  1539+X39      DS    0F
00001EB4  E310 8EE8 0004            000010E8  1540+      LG    R1,R1FUDGE        pollute R1
00001EBA  E710 5048 0006            00001EE0  1541+      VL    V1,RE39+8         get V1 source
00001EC0  E611 0090 0052                      1542+      VCVBG R1,V1,9           test instruction
00001EC6  E310 8F20 0024            00001120  1543+      STG   R1,R1OUTPUT       save
00001ECC  B98D 0020                           1544+      EPSW  R2,R0             exptract psw
00001ED0  5020 8ED8                 000010D8  1545+      ST    R2,CCPSW              to save CC
00001ED4  07FB                                1546+      BR    R11               return
00001ED8                                  1547+RE39     DC    0F
00001ED8                                  1548+      DROP  R5
00001ED8  00000000 FFFFFFFF               1549       DC    XL08'00000000FFFFFFFF'                    R1 result
00001EE0  00000000 00000000               1550       DC    XL16'00000000000000000000004294967295C'   V1 source
00001EE8  00000429 4967295C
                                          1551
                                          1552       VRR_I VCVBG,9,0                                 UINT_MAX +1
00001EF0                                  1553+      DS    0FD
00001EF0                  00001EF0        1554+      USING *,R5              base for test data and test routine
00001EF0  00001F0C                        1555+T40      DC    A(X40)            address of test routine
00001EF4  0028                            1556+      DC    H'40'             test number
00001EF6  00                              1557+      DC    XL1'00'
00001EF7  09                              1558+      DC    HL1'9'            &M3
00001EF8  00                              1559+      DC    HL1'0'            cc
00001EF9  07                              1560+      DC    HL1'7'            cc failed mask
00001EFA  E5C3E5C2 C7404040               1561+      DC    CL8'VCVBG'        instruction name
00001F04  00000010                        1562+      DC    A(16)             result length
00001F08  00001F30                        1563+REA40    DC    A(RE40)           result address
                                          1564+*                                INSTRUCTION UNDER TEST ROUTINE
00001F0C                                  1565+X40      DS    0F
00001F0C  E310 8EE8 0004            000010E8  1566+      LG    R1,R1FUDGE        pollute R1
00001F12  E710 5048 0006            00001F38  1567+      VL    V1,RE40+8         get V1 source
00001F18  E611 0090 0052                      1568+      VCVBG R1,V1,9           test instruction
00001F1E  E310 8F20 0024            00001120  1569+      STG   R1,R1OUTPUT       save
00001F24  B98D 0020                           1570+      EPSW  R2,R0             exptract psw
00001F28  5020 8ED8                 000010D8  1571+      ST    R2,CCPSW              to save CC
00001F2C  07FB                                1572+      BR    R11               return
00001F30                                  1573+RE40     DC    0F
00001F30                                  1574+      DROP  R5
00001F30  00000001 00000000               1575       DC    XL08'0000000100000000'                    R1 result
00001F38  00000000 00000000               1576       DC    XL16'00000000000000000000004294967296C'   V1 source
00001F40  00000429 4967296C
                                          1577
                                          1578       VRR_I VCVBG,9,0
00001F48                                  1579+      DS    0FD
00001F48                  00001F48        1580+      USING *,R5              base for test data and test routine
00001F48  00001F64                        1581+T41      DC    A(X41)            address of test routine
00001F4C  0029                            1582+      DC    H'41'             test number
00001F4E  00                              1583+      DC    XL1'00'
00001F4F  09                              1584+      DC    HL1'9'            &M3
00001F50  00                              1585+      DC    HL1'0'            cc
00001F51  07                              1586+      DC    HL1'7'            cc failed mask
00001F52  E5C3E5C2 C7404040               1587+      DC    CL8'VCVBG'        instruction name
00001F5C  00000010                        1588+      DC    A(16)             result length
00001F60  00001F88                        1589+REA41    DC    A(RE41)           result address
                                          1590+*                                INSTRUCTION UNDER TEST ROUTINE
```

```
  LOC        OBJECT CODE       ADDR1     ADDR2     STMT

00001F64                                           1591+X41      DS    0F
00001F64  E310 8EE8 0004                 000010E8  1592+          LG    R1,R1FUDGE        pollute R1
00001F6A  E710 5048 0006                 00001F90  1593+          VL    V1,RE41+8         get V1 source
00001F70  E611 0090 0052                           1594+          VCVBG R1,V1,9           test instruction
00001F76  E310 8F20 0024                 00001120  1595+          STG   R1,R1OUTPUT       save
00001F7C  B98D 0020                                1596+          EPSW  R2,R0             exptract psw
00001F80  5020 8ED8                      000010D8  1597+          ST    R2,CCPSW              to save CC
00001F84  07FB                                     1598+          BR    R11               return
00001F88                                           1599+RE41      DC    0F
00001F88                                           1600+          DROP  R5
00001F88  00000002 DF8E1660                        1601           DC    XL08'00000002DF8E1660'                    R1 result
00001F90  00000000 00000000                        1602           DC    XL16'0000000000000000000012340565600C'    V1 source
00001F98  00001234 0565600C
                                                   1603
                                                   1604           VRR_I VCVBG,9,0                                 LONG_MAX
00001FA0                                           1605+          DS    0FD
00001FA0                         00001FA0          1606+          USING *,R5              base for test data and test routine
00001FA0  00001FBC                                 1607+T42       DC    A(X42)            address of test routine
00001FA4  002A                                     1608+          DC    H'42'             test number
00001FA6  00                                       1609+          DC    XL1'00'
00001FA7  09                                       1610+          DC    HL1'9'            &M3
00001FA8  00                                       1611+          DC    HL1'0'            cc
00001FA9  07                                       1612+          DC    HL1'7'            cc failed mask
00001FAA  E5C3E5C2 C7404040                        1613+          DC    CL8'VCVBG'        instruction name
00001FB4  00000010                                 1614+          DC    A(16)             result length
00001FB8  00001FE0                                 1615+REA42     DC    A(RE42)           result address
                                                   1616+*                                 INSTRUCTION UNDER TEST ROUTINE
00001FBC                                           1617+X42       DS    0F
00001FBC  E310 8EE8 0004                 000010E8  1618+          LG    R1,R1FUDGE        pollute R1
00001FC2  E710 5048 0006                 00001FE8  1619+          VL    V1,RE42+8         get V1 source
00001FC8  E611 0090 0052                           1620+          VCVBG R1,V1,9           test instruction
00001FCE  E310 8F20 0024                 00001120  1621+          STG   R1,R1OUTPUT       save
00001FD4  B98D 0020                                1622+          EPSW  R2,R0             exptract psw
00001FD8  5020 8ED8                      000010D8  1623+          ST    R2,CCPSW              to save CC
00001FDC  07FB                                     1624+          BR    R11               return
00001FE0                                           1625+RE42      DC    0F
00001FE0                                           1626+          DROP  R5
00001FE0  7FFFFFFF FFFFFFFF                        1627           DC    XL08'7FFFFFFFFFFFFFFF'                    R1 result
00001FE8  00000000 00009223                        1628           DC    XL16'0000000000009223372036854775807C'    V1 source
00001FF0  37203685 4775807C
                                                   1629
                                                   1630           VRR_I VCVBG,9,3                                 LONG_MIN
00001FF8                                           1631+          DS    0FD
00001FF8                         00001FF8          1632+          USING *,R5              base for test data and test routine
00001FF8  00002014                                 1633+T43       DC    A(X43)            address of test routine
00001FFC  002B                                     1634+          DC    H'43'             test number
00001FFE  00                                       1635+          DC    XL1'00'
00001FFF  09                                       1636+          DC    HL1'9'            &M3
00002000  03                                       1637+          DC    HL1'3'            cc
00002001  0E                                       1638+          DC    HL1'14'           cc failed mask
00002002  E5C3E5C2 C7404040                        1639+          DC    CL8'VCVBG'        instruction name
0000200C  00000010                                 1640+          DC    A(16)             result length
00002010  00002038                                 1641+REA43     DC    A(RE43)           result address
                                                   1642+*                                 INSTRUCTION UNDER TEST ROUTINE
00002014                                           1643+X43       DS    0F
00002014  E310 8EE8 0004                 000010E8  1644+          LG    R1,R1FUDGE        pollute R1
```

```
  LOC        OBJECT CODE       ADDR1     ADDR2     STMT

0000201A  E710 5048 0006                 00002040  1645+          VL     V1,RE43+8          get V1 source
00002020  E611 0090 0052                           1646+          VCVBG  R1,V1,9            test instruction
00002026  E310 8F20 0024                 00001120  1647+          STG    R1,R1OUTPUT        save
0000202C  B98D 0020                                1648+          EPSW   R2,R0              exptract psw
00002030  5020 8ED8                      000010D8  1649+          ST     R2,CCPSW                to save CC
00002034  07FB                                     1650+          BR     R11                return
00002038                                           1651+RE43      DC     0F
00002038                                           1652+          DROP   R5
00002038  80000000 00000000                        1653           DC     XL08'8000000000000000'                      R1 result
00002040  00000000 00009223                        1654           DC     XL16'0000000000009223372036854775808D'      V1 source
00002048  37203685 4775808D
                                                   1655
                                                   1656           VRR_I  VCVBG,11,0                                  ULONG_MAX
00002050                                           1657+          DS     0FD
00002050                         00002050          1658+          USING  *,R5               base for test data and test routine
00002050  0000206C                                 1659+T44       DC     A(X44)             address of test routine
00002054  002C                                     1660+          DC     H'44'              test number
00002056  00                                       1661+          DC     XL1'00'
00002057  0B                                       1662+          DC     HL1'11'            &M3
00002058  00                                       1663+          DC     HL1'0'             cc
00002059  07                                       1664+          DC     HL1'7'             cc failed mask
0000205A  E5C3E5C2 C7404040                        1665+          DC     CL8'VCVBG'         instruction name
00002064  00000010                                 1666+          DC     A(16)              result length
00002068  00002090                                 1667+REA44     DC     A(RE44)            result address
                                                   1668+*                                   INSTRUCTION UNDER TEST ROUTINE
0000206C                                           1669+X44       DS     0F
0000206C  E310 8EE8 0004                 000010E8  1670+          LG     R1,R1FUDGE         pollute R1
00002072  E710 5048 0006                 00002098  1671+          VL     V1,RE44+8          get V1 source
00002078  E611 00B0 0052                           1672+          VCVBG  R1,V1,11           test instruction
0000207E  E310 8F20 0024                 00001120  1673+          STG    R1,R1OUTPUT        save
00002084  B98D 0020                                1674+          EPSW   R2,R0              exptract psw
00002088  5020 8ED8                      000010D8  1675+          ST     R2,CCPSW                to save CC
0000208C  07FB                                     1676+          BR     R11                return
00002090                                           1677+RE44      DC     0F
00002090                                           1678+          DROP   R5
00002090  FFFFFFFF FFFFFFFF                        1679           DC     XL08'FFFFFFFFFFFFFFFF'                      R1 result
00002098  00000000 00018446                        1680           DC     XL16'0000000000018446744073709551615C'      V1 source
000020A0  74407370 9551615C
                                                   1681
                                                   1682           VRR_I  VCVBG,11,3                                  ULONG_MAX +1
000020A8                                           1683+          DS     0FD
000020A8                         000020A8          1684+          USING  *,R5               base for test data and test routine
000020A8  000020C4                                 1685+T45       DC     A(X45)             address of test routine
000020AC  002D                                     1686+          DC     H'45'              test number
000020AE  00                                       1687+          DC     XL1'00'
000020AF  0B                                       1688+          DC     HL1'11'            &M3
000020B0  03                                       1689+          DC     HL1'3'             cc
000020B1  0E                                       1690+          DC     HL1'14'            cc failed mask
000020B2  E5C3E5C2 C7404040                        1691+          DC     CL8'VCVBG'         instruction name
000020BC  00000010                                 1692+          DC     A(16)              result length
000020C0  000020E8                                 1693+REA45     DC     A(RE45)            result address
                                                   1694+*                                   INSTRUCTION UNDER TEST ROUTINE
000020C4                                           1695+X45       DS     0F
000020C4  E310 8EE8 0004                 000010E8  1696+          LG     R1,R1FUDGE         pollute R1
000020CA  E710 5048 0006                 000020F0  1697+          VL     V1,RE45+8          get V1 source
000020D0  E611 00B0 0052                           1698+          VCVBG  R1,V1,11           test instruction
```

```
  LOC        OBJECT CODE       ADDR1     ADDR2     STMT

000020D6  E310 8F20 0024                 00001120  1699+          STG   R1,R1OUTPUT       save
000020DC  B98D 0020                               1700+          EPSW  R2,R0             exptract psw
000020E0  5020 8ED8                      000010D8  1701+          ST    R2,CCPSW              to save CC
000020E4  07FB                                    1702+          BR    R11               return
000020E8                                          1703+RE45      DC    0F
000020E8                                          1704+          DROP  R5
000020E8  00000000 00000000                       1705           DC    XL08'0000000000000000'                  R1 result
000020F0  00000000 00018446                       1706           DC    XL16'00000000000184467440737095516l6C'  V1 source
000020F8  74407370 9551616C
                                                  1707
                                                  1708           VRR_I VCVBG,11,3                              ULONG_MAX +11
00002100                                          1709+          DS    0FD
00002100                         00002100         1710+          USING *,R5              base for test data and test routine
00002100  0000211C                                1711+T46       DC    A(X46)            address of test routine
00002104  002E                                    1712+          DC    H'46'             test number
00002106  00                                      1713+          DC    XL1'00'
00002107  0B                                      1714+          DC    HL1'11'           &M3
00002108  03                                      1715+          DC    HL1'3'            cc
00002109  0E                                      1716+          DC    HL1'14'           cc failed mask
0000210A  E5C3E5C2 C7404040                       1717+          DC    CL8'VCVBG'        instruction name
00002114  00000010                                1718+          DC    A(16)             result length
00002118  00002140                                1719+REA46     DC    A(RE46)           result address
                                                  1720+*                                 INSTRUCTION UNDER TEST ROUTINE
0000211C                                          1721+X46       DS    0F
0000211C  E310 8EE8 0004                 000010E8 1722+          LG    R1,R1FUDGE        pollute R1
00002122  E710 5048 0006                 00002148 1723+          VL    V1,RE46+8         get V1 source
00002128  E611 00B0 0052                          1724+          VCVBG R1,V1,11          test instruction
0000212E  E310 8F20 0024                 00001120 1725+          STG   R1,R1OUTPUT       save
00002134  B98D 0020                               1726+          EPSW  R2,R0             exptract psw
00002138  5020 8ED8                      000010D8 1727+          ST    R2,CCPSW              to save CC
0000213C  07FB                                    1728+          BR    R11               return
00002140                                          1729+RE46      DC    0F
00002140                                          1730+          DROP  R5
00002140  00000000 0000000A                       1731           DC    XL08'000000000000000A'                  R1 result
00002148  00000000 00018446                       1732           DC    XL16'00000000000184467440737095516l6C'  V1 source
00002150  74407370 9551626C
                                                  1733
00002158  00000000                                1734           DC    F'0'      END OF TABLE
0000215C  00000000                                1735           DC    F'0'
                                                  1736 *
                                                  1737 * table of pointers to individual load test
                                                  1738 *
00002160                                          1739 E6TESTS   DS    0F
                                                  1740           PTTABLE
00002160                                          1741+TTABLE    DS    0F
00002160  00001188                                1742+          DC    A(T1)             address of test
00002164  000011E0                                1743+          DC    A(T2)             address of test
00002168  00001238                                1744+          DC    A(T3)             address of test
0000216C  00001290                                1745+          DC    A(T4)             address of test
00002170  000012E8                                1746+          DC    A(T5)             address of test
00002174  00001340                                1747+          DC    A(T6)             address of test
00002178  00001398                                1748+          DC    A(T7)             address of test
0000217C  000013F0                                1749+          DC    A(T8)             address of test
00002180  00001448                                1750+          DC    A(T9)             address of test
00002184  000014A0                                1751+          DC    A(T10)            address of test
00002188  000014F8                                1752+          DC    A(T11)            address of test
```

```
  LOC        OBJECT CODE       ADDR1     ADDR2     STMT

0000218C  00001550                          1753+         DC    A(T12)            address of test
00002190  000015A8                          1754+         DC    A(T13)            address of test
00002194  00001600                          1755+         DC    A(T14)            address of test
00002198  00001658                          1756+         DC    A(T15)            address of test
0000219C  000016B0                          1757+         DC    A(T16)            address of test
000021A0  00001708                          1758+         DC    A(T17)            address of test
000021A4  00001760                          1759+         DC    A(T18)            address of test
000021A8  000017B8                          1760+         DC    A(T19)            address of test
000021AC  00001810                          1761+         DC    A(T20)            address of test
000021B0  00001868                          1762+         DC    A(T21)            address of test
000021B4  000018C0                          1763+         DC    A(T22)            address of test
000021B8  00001918                          1764+         DC    A(T23)            address of test
000021BC  00001970                          1765+         DC    A(T24)            address of test
000021C0  000019C8                          1766+         DC    A(T25)            address of test
000021C4  00001A20                          1767+         DC    A(T26)            address of test
000021C8  00001A78                          1768+         DC    A(T27)            address of test
000021CC  00001AD0                          1769+         DC    A(T28)            address of test
000021D0  00001B28                          1770+         DC    A(T29)            address of test
000021D4  00001B80                          1771+         DC    A(T30)            address of test
000021D8  00001BD8                          1772+         DC    A(T31)            address of test
000021DC  00001C30                          1773+         DC    A(T32)            address of test
000021E0  00001C88                          1774+         DC    A(T33)            address of test
000021E4  00001CE0                          1775+         DC    A(T34)            address of test
000021E8  00001D38                          1776+         DC    A(T35)            address of test
000021EC  00001D90                          1777+         DC    A(T36)            address of test
000021F0  00001DE8                          1778+         DC    A(T37)            address of test
000021F4  00001E40                          1779+         DC    A(T38)            address of test
000021F8  00001E98                          1780+         DC    A(T39)            address of test
000021FC  00001EF0                          1781+         DC    A(T40)            address of test
00002200  00001F48                          1782+         DC    A(T41)            address of test
00002204  00001FA0                          1783+         DC    A(T42)            address of test
00002208  00001FF8                          1784+         DC    A(T43)            address of test
0000220C  00002050                          1785+         DC    A(T44)            address of test
00002210  000020A8                          1786+         DC    A(T45)            address of test
00002214  00002100                          1787+         DC    A(T46)            address of test
                                            1788+*
00002218  00000000                          1789+         DC    A(0)              END OF TABLE
0000221C  00000000                          1790+         DC    A(0)
                                            1791
00002220  00000000                          1792          DC    F'0'      END OF TABLE
00002224  00000000                          1793          DC    F'0'
```

```
 LOC        OBJECT CODE       ADDR1     ADDR2     STMT
                                         1795 ********************************************************************************
                                         1796 *        Register equates
                                         1797 ********************************************************************************

                            00000000  00000001  1799 R0       EQU   0
                            00000001  00000001  1800 R1       EQU   1
                            00000002  00000001  1801 R2       EQU   2
                            00000003  00000001  1802 R3       EQU   3
                            00000004  00000001  1803 R4       EQU   4
                            00000005  00000001  1804 R5       EQU   5
                            00000006  00000001  1805 R6       EQU   6
                            00000007  00000001  1806 R7       EQU   7
                            00000008  00000001  1807 R8       EQU   8
                            00000009  00000001  1808 R9       EQU   9
                            0000000A  00000001  1809 R10      EQU   10
                            0000000B  00000001  1810 R11      EQU   11
                            0000000C  00000001  1811 R12      EQU   12
                            0000000D  00000001  1812 R13      EQU   13
                            0000000E  00000001  1813 R14      EQU   14
                            0000000F  00000001  1814 R15      EQU   15

                                         1816 ********************************************************************************
                                         1817 *        Register equates
                                         1818 ********************************************************************************

                            00000000  00000001  1820 V0       EQU   0
                            00000001  00000001  1821 V1       EQU   1
                            00000002  00000001  1822 V2       EQU   2
                            00000003  00000001  1823 V3       EQU   3
                            00000004  00000001  1824 V4       EQU   4
                            00000005  00000001  1825 V5       EQU   5
                            00000006  00000001  1826 V6       EQU   6
                            00000007  00000001  1827 V7       EQU   7
                            00000008  00000001  1828 V8       EQU   8
                            00000009  00000001  1829 V9       EQU   9
                            0000000A  00000001  1830 V10      EQU   10
                            0000000B  00000001  1831 V11      EQU   11
                            0000000C  00000001  1832 V12      EQU   12
                            0000000D  00000001  1833 V13      EQU   13
                            0000000E  00000001  1834 V14      EQU   14
                            0000000F  00000001  1835 V15      EQU   15
                            00000010  00000001  1836 V16      EQU   16
                            00000011  00000001  1837 V17      EQU   17
                            00000012  00000001  1838 V18      EQU   18
                            00000013  00000001  1839 V19      EQU   19
                            00000014  00000001  1840 V20      EQU   20
                            00000015  00000001  1841 V21      EQU   21
```

```
  LOC         OBJECT CODE       ADDR1     ADDR2     STMT
                                00000016  00000001  1842 V22       EQU   22
                                00000017  00000001  1843 V23       EQU   23
                                00000018  00000001  1844 V24       EQU   24
                                00000019  00000001  1845 V25       EQU   25
                                0000001A  00000001  1846 V26       EQU   26
                                0000001B  00000001  1847 V27       EQU   27
                                0000001C  00000001  1848 V28       EQU   28
                                0000001D  00000001  1849 V29       EQU   29
                                0000001E  00000001  1850 V30       EQU   30
                                0000001F  00000001  1851 V31       EQU   31
                                                    1852
                                                    1853           END
```

SYMBOL	TYPE	VALUE	LENGTH	DEFN	REFERENCES
BEGIN	I	00000200	2	91	57 88 89
CC	U	00000008	1	419	169
CCFOUND	X	000010E0	1	391	156 176
CCMASK	U	00000009	1	420	127
CCMSG	U	00000270	1	145	139
CCPRTEXP	C	0000108A	1	371	173
CCPRTGOT	C	0000109A	1	374	180
CCPRTLINE	C	00001047	16	366	376 183
CCPRTLNG	U	00000055	1	376	182
CCPRTNAME	C	00001074	8	369	166
CCPRTNUM	C	00001057	3	367	164
CCPSW	F	000010D8	4	390	153 551 577 603 629 655 681 707 733 759 786 812 838 864 890 916 942 968 994 1024 1050 1076 1102 1128 1154 1180 1206 1232 1258 1284 1310 1336 1362 1389 1415 1441 1467 1493 1519 1545 1571 1597 1623 1649 1675 1701 1727
CTLR0	F	00000484	4	312	101 102 103 104
DECNUM	C	000010C8	16	386	161 163 170 172 177 179 195 197 204 206
E6TADR	A	0000048C	4	315	110
E6TEST	4	00000000	28	414	119
E6TESTS	F	00002160	4	1739	315
EDIT	X	0000109C	18	381	162 171 178 196 205
ENDTEST	U	0000035A	1	226	115
EOJ	I	00000468	4	302	229
EOJPSW	D	00000458	8	300	302
FAILCONT	U	0000034A	1	216	186
FAILED	F	00001000	4	342	218 227
FAILMSG	U	00000300	1	193	134
FAILPSW	D	00000470	8	304	306
FAILTEST	I	00000480	4	306	230
IMAGE	1	00000000	8744	0	
K	U	00000400	1	325	326 327 328
K64	U	00010000	1	327	
M3	U	00000007	1	418	147 203
MB	U	00100000	1	328	
MSG	I	000003A0	4	262	245
MSGCMD	C	000003EE	9	292	275 276
MSGMSG	C	000003F7	95	293	269 290 267
MSGMVC	I	000003E8	6	290	273
MSGOK	I	000003B6	2	271	268
MSGRET	I	000003D6	4	286	279 282
MSGSAVE	F	000003DC	4	289	265 286
NEXTE6	U	0000022A	1	112	137 221
OPNAME	C	0000000A	8	422	166 200
PAGE	U	00001000	1	326	
PRT3	C	000010B2	18	384	162 163 164 171 172 173 178 179 180 196 197 198 205 206 207
PRTLINE	C	00001008	16	351	358 210
PRTLNG	U	0000003F	1	358	209
PRTM3	C	00001044	2	356	207
PRTNAME	C	00001033	8	354	200
PRTNUM	C	00001018	3	352	198
R0	U	00000000	1	1799	51 101 104 117 121 122 182 209 217 218 244 246 262 265 267 269 271 286 550 576 602 628 654 680 706 732 758 785 811 837 863 889 915 941 967 993 1023 1049 1075 1101 1127 1153 1179 1205 1231 1257 1283 1309 1335 1361 1388 1414 1440 1466 1492 1518 1544 1570 1596 1622 1648 1674 1700 1726

SYMBOL	TYPE	VALUE	LENGTH	DEFN	REFERENCES
R1	U	00000001	1	1800	127 128 129 132 133 146 147 148 153 154 155 156 183
					210 227 228 276 290 546 548 549 572 574 575 598 600
					601 624 626 627 650 652 653 676 678 679 702 704 705
					728 730 731 754 756 757 781 783 784 807 809 810 833
					835 836 859 861 862 885 887 888 911 913 914 937 939
					940 963 965 966 989 991 992 1019 1021 1022 1045 1047 1048
					1071 1073 1074 1097 1099 1100 1123 1125 1126 1149 1151 1152 1175
					1177 1178 1201 1203 1204 1227 1229 1230 1253 1255 1256 1279 1281
					1282 1305 1307 1308 1331 1333 1334 1357 1359 1360 1384 1386 1387
					1410 1412 1413 1436 1438 1439 1462 1464 1465 1488 1490 1491 1514
					1516 1517 1540 1542 1543 1566 1568 1569 1592 1594 1595 1618 1620
					1621 1644 1646 1647 1670 1672 1673 1696 1698 1699 1722 1724 1725
R10	U	0000000A	1	1809	98 99
R11	U	0000000B	1	1810	124 125 552 578 604 630 656 682 708 734 760 787 813
					839 865 891 917 943 969 995 1025 1051 1077 1103 1129 1155
					1181 1207 1233 1259 1285 1311 1337 1363 1390 1416 1442 1468 1494
					1520 1546 1572 1598 1624 1650 1676 1702 1728
R12	U	0000000C	1	1811	110 113 136 220
R13	U	0000000D	1	1812	
R14	U	0000000E	1	1813	
R15	U	0000000F	1	1814	184 211 239 249 250
R1FUDGE	X	000010E8	8	397	546 572 598 624 650 676 702 728 754 781 807 833 859
					885 911 937 963 989 1019 1045 1071 1097 1123 1149 1175 1201
					1227 1253 1279 1305 1331 1357 1384 1410 1436 1462 1488 1514 1540
					1566 1592 1618 1644 1670 1696 1722
R1OUTPUT	F	00001120	8	401	133 549 575 601 627 653 679 705 731 757 784 810 836
					862 888 914 940 966 992 1022 1048 1074 1100 1126 1152 1178
					1204 1230 1256 1282 1308 1334 1360 1387 1413 1439 1465 1491 1517
					1543 1569 1595 1621 1647 1673 1699 1725
R2	U	00000002	1	1801	160 161 168 169 170 175 176 177 194 195 202 203 204
					244 245 246 263 265 271 272 273 275 281 286 287 550
					551 576 577 602 603 628 629 654 655 680 681 706 707
					732 733 758 759 785 786 811 812 837 838 863 864 889
					890 915 916 941 942 967 968 993 994 1023 1024 1049 1050
					1075 1076 1101 1102 1127 1128 1153 1154 1179 1180 1205 1206 1231
					1232 1257 1258 1283 1284 1309 1310 1335 1336 1361 1362 1388 1389
					1414 1415 1440 1441 1466 1467 1492 1493 1518 1519 1544 1545 1570
					1571 1596 1597 1622 1623 1648 1649 1674 1675 1700 1701 1726 1727
R3	U	00000003	1	1802	
R4	U	00000004	1	1803	
R5	U	00000005	1	1804	113 114 119 240 248 534 554 560 580 586 606 612 632
					638 658 664 684 690 710 716 736 742 762 769 789 795
					815 821 841 847 867 873 893 899 919 925 945 951 971
					977 997 1007 1027 1033 1053 1059 1079 1085 1105 1111 1131 1137
					1157 1163 1183 1189 1209 1215 1235 1241 1261 1267 1287 1293 1313
					1319 1339 1345 1365 1372 1392 1398 1418 1424 1444 1450 1470 1476
					1496 1502 1522 1528 1548 1554 1574 1580 1600 1606 1626 1632 1652
					1658 1678 1684 1704 1710 1730
R6	U	00000006	1	1805	
R7	U	00000007	1	1806	
R8	U	00000008	1	1807	88 91 92 93 95
R9	U	00000009	1	1808	89 95 96 98
RE1	F	000011C8	4	553	543 547
RE10	F	000014E0	4	788	778 782
RE11	F	00001538	4	814	804 808
RE12	F	00001590	4	840	830 834

SYMBOL	TYPE	VALUE	LENGTH	DEFN	REFERENCES
RE13	F	000015E8	4	866	856 860
RE14	F	00001640	4	892	882 886
RE15	F	00001698	4	918	908 912
RE16	F	000016F0	4	944	934 938
RE17	F	00001748	4	970	960 964
RE18	F	000017A0	4	996	986 990
RE19	F	000017F8	4	1026	1016 1020
RE2	F	00001220	4	579	569 573
RE20	F	00001850	4	1052	1042 1046
RE21	F	000018A8	4	1078	1068 1072
RE22	F	00001900	4	1104	1094 1098
RE23	F	00001958	4	1130	1120 1124
RE24	F	000019B0	4	1156	1146 1150
RE25	F	00001A08	4	1182	1172 1176
RE26	F	00001A60	4	1208	1198 1202
RE27	F	00001AB8	4	1234	1224 1228
RE28	F	00001B10	4	1260	1250 1254
RE29	F	00001B68	4	1286	1276 1280
RE3	F	00001278	4	605	595 599
RE30	F	00001BC0	4	1312	1302 1306
RE31	F	00001C18	4	1338	1328 1332
RE32	F	00001C70	4	1364	1354 1358
RE33	F	00001CC8	4	1391	1381 1385
RE34	F	00001D20	4	1417	1407 1411
RE35	F	00001D78	4	1443	1433 1437
RE36	F	00001DD0	4	1469	1459 1463
RE37	F	00001E28	4	1495	1485 1489
RE38	F	00001E80	4	1521	1511 1515
RE39	F	00001ED8	4	1547	1537 1541
RE4	F	000012D0	4	631	621 625
RE40	F	00001F30	4	1573	1563 1567
RE41	F	00001F88	4	1599	1589 1593
RE42	F	00001FE0	4	1625	1615 1619
RE43	F	00002038	4	1651	1641 1645
RE44	F	00002090	4	1677	1667 1671
RE45	F	000020E8	4	1703	1693 1697
RE46	F	00002140	4	1729	1719 1723
RE5	F	00001328	4	657	647 651
RE6	F	00001380	4	683	673 677
RE7	F	000013D8	4	709	699 703
RE8	F	00001430	4	735	725 729
RE9	F	00001488	4	761	751 755
REA1	A	000011A0	4	543	
REA10	A	000014B8	4	778	
REA11	A	00001510	4	804	
REA12	A	00001568	4	830	
REA13	A	000015C0	4	856	
REA14	A	00001618	4	882	
REA15	A	00001670	4	908	
REA16	A	000016C8	4	934	
REA17	A	00001720	4	960	
REA18	A	00001778	4	986	
REA19	A	000017D0	4	1016	
REA2	A	000011F8	4	569	
REA20	A	00001828	4	1042	
REA21	A	00001880	4	1068	

SYMBOL	TYPE	VALUE	LENGTH	DEFN	REFERENCES
REA22	A	000018D8	4	1094	
REA23	A	00001930	4	1120	
REA24	A	00001988	4	1146	
REA25	A	000019E0	4	1172	
REA26	A	00001A38	4	1198	
REA27	A	00001A90	4	1224	
REA28	A	00001AE8	4	1250	
REA29	A	00001B40	4	1276	
REA3	A	00001250	4	595	
REA30	A	00001B98	4	1302	
REA31	A	00001BF0	4	1328	
REA32	A	00001C48	4	1354	
REA33	A	00001CA0	4	1381	
REA34	A	00001CF8	4	1407	
REA35	A	00001D50	4	1433	
REA36	A	00001DA8	4	1459	
REA37	A	00001E00	4	1485	
REA38	A	00001E58	4	1511	
REA39	A	00001EB0	4	1537	
REA4	A	000012A8	4	621	
REA40	A	00001F08	4	1563	
REA41	A	00001F60	4	1589	
REA42	A	00001FB8	4	1615	
REA43	A	00002010	4	1641	
REA44	A	00002068	4	1667	
REA45	A	000020C0	4	1693	
REA46	A	00002118	4	1719	
REA5	A	00001300	4	647	
REA6	A	00001358	4	673	
REA7	A	000013B0	4	699	
REA8	A	00001408	4	725	
REA9	A	00001460	4	751	
READDR	A	00000018	4	425	132
REG2LOW	U	000000DD	1	332	
REG2PATT	U	AABBCCDD	1	331	
RELEN	A	00000014	4	424	
RPTDWSAV	D	00000390	8	255	244 246
RPTERROR	I	00000368	4	239	184 211
RPTSAVE	F	00000388	4	252	239 249
RPTSVR5	F	0000038C	4	253	240 248
SVOLDPSW	U	00000140	0	53	
T1	A	00001188	4	535	1742
T10	A	000014A0	4	770	1751
T11	A	000014F8	4	796	1752
T12	A	00001550	4	822	1753
T13	A	000015A8	4	848	1754
T14	A	00001600	4	874	1755
T15	A	00001658	4	900	1756
T16	A	000016B0	4	926	1757
T17	A	00001708	4	952	1758
T18	A	00001760	4	978	1759
T19	A	000017B8	4	1008	1760
T2	A	000011E0	4	561	1743
T20	A	00001810	4	1034	1761
T21	A	00001868	4	1060	1762
T22	A	000018C0	4	1086	1763

SYMBOL	TYPE	VALUE	LENGTH	DEFN	REFERENCES
T23	A	00001918	4	1112	1764
T24	A	00001970	4	1138	1765
T25	A	000019C8	4	1164	1766
T26	A	00001A20	4	1190	1767
T27	A	00001A78	4	1216	1768
T28	A	00001AD0	4	1242	1769
T29	A	00001B28	4	1268	1770
T3	A	00001238	4	587	1744
T30	A	00001B80	4	1294	1771
T31	A	00001BD8	4	1320	1772
T32	A	00001C30	4	1346	1773
T33	A	00001C88	4	1373	1774
T34	A	00001CE0	4	1399	1775
T35	A	00001D38	4	1425	1776
T36	A	00001D90	4	1451	1777
T37	A	00001DE8	4	1477	1778
T38	A	00001E40	4	1503	1779
T39	A	00001E98	4	1529	1780
T4	A	00001290	4	613	1745
T40	A	00001EF0	4	1555	1781
T41	A	00001F48	4	1581	1782
T42	A	00001FA0	4	1607	1783
T43	A	00001FF8	4	1633	1784
T44	A	00002050	4	1659	1785
T45	A	000020A8	4	1685	1786
T46	A	00002100	4	1711	1787
T5	A	000012E8	4	639	1746
T6	A	00001340	4	665	1747
T7	A	00001398	4	691	1748
T8	A	000013F0	4	717	1749
T9	A	00001448	4	743	1750
TESTCC	I	0000026C	4	139	129
TESTING	F	00001004	4	343	122
TESTREST	U	00000254	1	131	149
TNUM	H	00000004	2	416	121 160 194
TSUB	A	00000000	4	415	124
TTABLE	F	00002160	4	1741	
V0	U	00000000	1	1820	
V1	U	00000001	1	1821	547 548 573 574 599 600 625 626 651 652 677 678 703 704 729 730 755 756 782 783 808 809 834 835 860 861 886 887 912 913 938 939 964 965 990 991 1020 1021 1046 1047 1072 1073 1098 1099 1124 1125 1150 1151 1176 1177 1202 1203 1228 1229 1254 1255 1280 1281 1306 1307 1332 1333 1358 1359 1385 1386 1411 1412 1437 1438 1463 1464 1489 1490 1515 1516 1541 1542 1567 1568 1593 1594 1619 1620 1645 1646 1671 1672 1697 1698 1723 1724
V10	U	0000000A	1	1830	
V11	U	0000000B	1	1831	
V12	U	0000000C	1	1832	
V13	U	0000000D	1	1833	
V14	U	0000000E	1	1834	
V15	U	0000000F	1	1835	
V16	U	00000010	1	1836	
V17	U	00000011	1	1837	
V18	U	00000012	1	1838	
V19	U	00000013	1	1839	

SYMBOL	TYPE	VALUE	LENGTH	DEFN	REFERENCES
V1FUDGE	X	00001138	16	403	
V1FUDGEB	X	00001148	16	404	
V1INPUT	C	00001158	16	405	
V1OUTPUT	X	00001100	16	399	
V2	U	00000002	1	1822	
V20	U	00000014	1	1840	
V21	U	00000015	1	1841	
V22	U	00000016	1	1842	
V23	U	00000017	1	1843	
V24	U	00000018	1	1844	
V25	U	00000019	1	1845	
V26	U	0000001A	1	1846	
V27	U	0000001B	1	1847	
V28	U	0000001C	1	1848	
V29	U	0000001D	1	1849	
V3	U	00000003	1	1823	
V30	U	0000001E	1	1850	
V31	U	0000001F	1	1851	
V4	U	00000004	1	1824	
V5	U	00000005	1	1825	
V6	U	00000006	1	1826	
V7	U	00000007	1	1827	
V8	U	00000008	1	1828	
V9	U	00000009	1	1829	
X1	F	000011A4	4	545	535
X10	F	000014BC	4	780	770
X11	F	00001514	4	806	796
X12	F	0000156C	4	832	822
X13	F	000015C4	4	858	848
X14	F	0000161C	4	884	874
X15	F	00001674	4	910	900
X16	F	000016CC	4	936	926
X17	F	00001724	4	962	952
X18	F	0000177C	4	988	978
X19	F	000017D4	4	1018	1008
X2	F	000011FC	4	571	561
X20	F	0000182C	4	1044	1034
X21	F	00001884	4	1070	1060
X22	F	000018DC	4	1096	1086
X23	F	00001934	4	1122	1112
X24	F	0000198C	4	1148	1138
X25	F	000019E4	4	1174	1164
X26	F	00001A3C	4	1200	1190
X27	F	00001A94	4	1226	1216
X28	F	00001AEC	4	1252	1242
X29	F	00001B44	4	1278	1268
X3	F	00001254	4	597	587
X30	F	00001B9C	4	1304	1294
X31	F	00001BF4	4	1330	1320
X32	F	00001C4C	4	1356	1346
X33	F	00001CA4	4	1383	1373
X34	F	00001CFC	4	1409	1399
X35	F	00001D54	4	1435	1425
X36	F	00001DAC	4	1461	1451
X37	F	00001E04	4	1487	1477
X38	F	00001E5C	4	1513	1503

SYMBOL	TYPE	VALUE	LENGTH	DEFN	REFERENCES
X39	F	00001EB4	4	1539	1529
X4	F	000012AC	4	623	613
X40	F	00001F0C	4	1565	1555
X41	F	00001F64	4	1591	1581
X42	F	00001FBC	4	1617	1607
X43	F	00002014	4	1643	1633
X44	F	0000206C	4	1669	1659
X45	F	000020C4	4	1695	1685
X46	F	0000211C	4	1721	1711
X5	F	00001304	4	649	639
X6	F	0000135C	4	675	665
X7	F	000013B4	4	701	691
X8	F	0000140C	4	727	717
X9	F	00001464	4	753	743
ZVE6TST	J	00000000	8744	50	53 55 59 63 341 51
=AL2(L'MSGMSG)	R	0000049A	2	321	267
=F'1'	F	00000490	4	318	148 217
=H'0'	H	00000498	2	320	262
=XL4'3'	X	00000494	4	319	155

```
 MACRO    DEFN   REFERENCES

PTTABLE    494    1740
VRR_I      439     532     558     584     610     636     662     688     714     740     767     793     819     845     871     897     923     949
                   975    1005    1031    1057    1083    1109    1135    1161    1187    1213    1239    1265    1291    1317    1343    1370    1396
                  1422    1448    1474    1500    1526    1552    1578    1604    1630    1656    1682    1708
```

```
   DESC      SYMBOL   SIZE     POS         ADDR

Entry: 0

Image       IMAGE    8744  0000-2227  0000-2227
  Region             8744  0000-2227  0000-2227
    CSECT   ZVE6TST  8744  0000-2227  0000-2227
```

```
   STMT                              FILE NAME
1     /home/tn529/sharedvfp/tests/zvector-e6-11-convertbinary.asm

** NO ERRORS FOUND **
```