```
0000000400                                      ORG     400

0000000400a  004000  000000  002000  tag       JCS     tag       Jump if semaphore clear; set semaphore
0000000400d  005000  000000  002000            JSS     tag       Jump if semaphore is set; set semaphore
0000000401c  006000                            SSM               Set semaphore
0000000401d  007000                            CSM               Clear semaphore

0000000402a  010007  000000  002000  A_JUMP    JZ      A7,tag    Jump if Ak is zero
0000000402d  011007  000000  002000            JN      A7,tag    Jump if Ak is nonzero
0000000403c  012007  000000  002000            JP      A7,tag    Jump if Ak is positive
0000000404b  013007  000000  002000            JM      A7,tag    Jump if Ak is negative

0000000405a  014060  000000  002000  S_JUMP    JZ      S6,tag    Jump if Sj is zero
0000000405d  015060  000000  002000            JN      S6,tag    Jump if Sj is nonzero
0000000406c  016060  000000  002000            JP      S6,tag    Jump if Sj is positive
0000000407b  017060  000000  002000            JM      S6,tag    Jump if Sj is negative

0000000410a  020567                  A_ADD     A5      A6+A7     Enter Ai with integer sum of Aj and Ak
0000000410b  021567                            A5      A6-A7     Enter Ai with integer difference of Aj and Ak

0000000410c  022567                  A_MUL     A5      A6*A7     Enter Ai with integer product of Aj and Ak

0000000410d  024560                  S_to_A    A5      S6        Enter Ai with Sj

0000000411a  025500                  label1    A5      VL        Enter Ai with Vector Length

0000000411b  026577                  A_LOAD    A5      six,S,P   Load Ai with a 6-bit positive value
0000000411c  027500                            A5      #six,S,M  Load Ai with a 6-bit negative value

0000000411d  030007                  MASKS     VM      V7,Z      Set Vector Mask from zero elements of Vk
0000000412a  031007                            VM      V7,N      Set Vector Mask from nonzero elements of Vk
0000000412b  032007                            VM      V7,P      Set Vector Mask from positive elements of Vk
0000000412c  033007                            VM      V7,M      Set Vector Mask from negative elements of Vk
0000000412d  034060                            VM      S6        Enter Vector Mask with Sj

0000000413a  035000                  _ABLES    DRI               Disable halt on memory field range error
0000000413b  035001                            ERI               Enable halt on memory field range error
0000000413c  035002                            DFI               Disable halt on floating-point error
0000000413d  035003                            EFI               Enable halt on floating-point error

0000000414a  036007                  Label2    VL      A7        Enter Vector Length with Ak
                                               page
```