```
00000                                  IDENT   IPLCD
00001                          ASR     EQU     /0010
00002                          PTR     EQU     /0020
00003                          S       EQU     1
00004                          H       EQU     0
00005  0000  85A0                      LDK.L   A13,OUTMSG
       0002  0000  F
00006  0004  0602                      LDK     A6,2
00007  0006  4A20              INR     INR     A2,0,PTR
00008  0008  5C04                      RB(4)   *-2                    INPUT CKSUM
00009  000A  22FF                      ANK     A2,/FF
00010  000C  3D48                      SLL     A5,8
00011  000E  9508                      ADR     A5,A2
00012  0010  1E01                      SUK     A6,1
00013  0012  5C0E                      RB(4)   INR
00014  0014  42A0                      CIO     A2,H,PTR
00015  0016  4AE0                      SST     A2,PTR
00016  0018  5C04                      RB(4)   *-2
00017  001A  86A0                      LDK.L   A14,CFZON
       001C  0000  F
00018  001E  B114                      XRR     A1,A5
00019  0020  5000  F                   RF(0)   CKOK                   TETS IF CKSUM O.K.
00020  0022  8120              ERCKSM  LDK.L   A1,CKERMG
       0024  0000  F
00021  0026  020C                      LDK     A2,12
00022  0028  F697                      CFR     A14,A13
00023  002A  207F                      HLT                            YOU BETTER RELOAD BY BOOTSTRAP
00024  002C  424F              CKERMG  DATA    'BOOT CK ER'
       002E  4F54
       0030  2043
       0032  4B20
       0034  4552
00025  0036  0D0A                      DATA    /0D0A
00026  0038  5359              SYSMSG  DATA    'SYSTEM TAPE ON READER,PLEASE'
       003A  5354
       003C  454D
       003E  2054
       0040  4150
       0042  4520
       0044  4F4E
       0046  2052
       0048  4541
       004A  4445
       004C  522C
       004E  504C
       0050  4541
       0052  5345
00027  0054  0D0A                      DATA    /0D0A
00028                          STAD    EQU     *
00029  0056  4543              ECMSG   DATA    'EC'
00030  0058  0D0A                      DATA    X'0D0A'
00031  005A  3056              OFLMSG  DATA    'OVFL'
       005C  464C
00032  005E  0D0A                      DATA    /0D0A
00033  0060                            RES     4
00034                          CFZON   EQU     *-2
00035  0068  0300              OUTMSG  LDK     A3,0                   THIS ROUTINE OUTPUT A MESSAGE ON
00036  006A  43D0                      CIO     A3,S,ASR               CALL PARAMETERS : A1= ADDRESS OF
00037  006C  E324                      LCR     A3,A1                  A2=CHARACTER NUMBER
00038  006E  4310              OTR     OTR     A3,0,ASR
00039  0070  5C04                      RB(4)   *-2
00040  0072  1101                      ADK     A1,1
00041  0074  1A01                      SUK     A2,1
00042  0076  5C0C                      RB(4)   OTR-2
00043  0078  4390                      CIO     A3,H,ASR
00044  007A  4BD0                      SST     A3,ASR


00045  007C  5C04                      RB(4)   *-2
00046  007E  F03A                      RTN     A14
00047  0080  8120              CKOK    LDK.L   A1,SYSMSG              SYSTEM TAPE ON READER, PLEASE!
       0082  0000  F
00048  0084  021E                      LDK     A2,30
00049  0086  F697                      CFR     A14,A13
00050  0088  81A0                      LDK.L   A9,/40                 BASE ADDRESS FOR SYSTEM!
       008A  0040
00051  008C  207F                      HLT
00052  008E  F6A1                      CF      A14,MNLD≡PRØLØ         CALL MNLD TO LOAD THE SYSTEM
       0090  0000  F
00053                          *                                      WHEN WE RETURN EOF HAS BEEN READ
00054                          *                                      ON INPUT TAPE
00055  0092  8F40                      ABI     COREND                 GO TO SYTEM INITIALISATOR PART
       0094  0000  F
00056  0096  0000              BADDR   DATA    0
00057                          ********************************************************************************
00058                          * THIS SEQUENCE READS THE OBJECT CODE IN THE 8+8 FORMAT
00059  0098  0300              RAFL    LDK     A3,0
00060  009A  0700                      LDK     A7,0
00061  009C  8520                      LDK.L   A5,BUFF
       009E  0000  F
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00062  00A0  0600          LDK     A6,0
00063                    * THIS SEQUENCE IS ONLY AVAIBLE ON THE PAPER READER
00064  00A2  46E0          CIO     A6,S,PTR
00065  00A4  4A20    INP2  INR     A2,0,PTR
00066  00A6  5C04          RB(4)   *-2
00067  00A8  5700  F       RF(7)   SWITCH
00068  00AA  EF04    OBJINP CWR    A7,A1
00069  00AC  5000  F       RF(0)   END2
00070  00AE  E235          SCR     A2,A5
00071  00B0  B408          XRR     A4,A2
00072  00B2  1501          ADK     A5,1
00073  00B4  EF20          CWK     A7,1
       00B6  0001
00074  00B8  5400  F       RF(4)   OBJIN1
00075  00BA  0400          LDK     A4,0
00076  00BC  8108          LDR     A1,A2
00077  00BE  9108          ADR     A1,A2
00078  00C0  1103          ADK     A1,3
00079  00C2  1701    OBJIN1 ADK    A7,1
00080  00C4  5F22          RB(7)   INP2
00081  00C6  220F    FIRST ANK     A2,/F
00082  00C8  0150          LDK     A1,80
00083  00CA  5F22          RB(7)   OBJINP
00084  00CC  42A0    END2  CIO     A2,H,PTR
00085  00CE  49E0          SST     A1,PTR
00086  00D0  5C04          RB(4)   *-2
00087  00D2  24FF          ANK     A4,/FF
00088  00D4  5000  F       RF(0)   PROLO1+2          O.K. NO ERROR
00089  00D6  8120          LDK.L   A1,ECMSG
       00D8  0056  R
00090  00DA  0204          LDK     A2,4
00091  00DC  F6A1          CF      A14,OUTMSG
       00DE  0068  R
00092  00E0  207F    STOP  HLT
00093  00E2  5F4C          RB(7)   RAFL              *IF YOU RESTART, YOU READ AGAIN
00094  00E4  EA20    ASCINP CWK    A2,/0D            *CR
       00E6  000D
00095  00E8  5000  F       RF(0)   END1
00096  00EA  EF20          CWK     A7,68
       00EC  0044
00097  00EE  584C          RB(0)   INP2
00098  00F0  E235          SCR     A2,A5
00099  00F2  1501          ADK     A5,1
00100  00F4  1701          ADK     A7,1
00101  00F6  5F54          RB(7)   INP2
00102  00F8  42A0    END1  CIO     A2,H,PTR
00103  00FA  4AE0          SST     A2,PTR
00104  00FC  5C04          RB(4)   *-2
00105  00FE  8120          LDK.L   A1,BUFF
       0100  0000  F
00106  0102  821C          LDR     A2,A7
00107  0104  8320          LDK.L   A3,/0D0A
       0106  0D0A
00108  0108  8349          ST      A3,BUFF,A2
       010A  0000  F
00109  010C  1202          ADK     A2,2
00110  010E  F697          CFR     A14,A13
00111  0110  8220          LDK.L   A2,BUFF
       0112  0000  F
00112  0114  8328          LDR*    A3,A2
00113  0116  EB20          CWK     A3,/3A45          * :E
       0118  3A45
00114  011A  5C84          RB(4)   RAFL
00115  011C  1202          ADK     A2,2
00116  011E  8328          LDR*    A3,A2
00117  0120  EB20          CWK     A3,/4F46          *OF
       0122  4F46
00118  0124  5C8E          RB(4)   RAFL
00119  0126  F03A          RTN     A14               EOF READ, RETURN
00120  0128  1300    SWITCH ADK    A3,0
00121  012A  5982          RB(1)   OBJINP
00122  012C  227F          ANK     A2,/7F
00123  012E  588C          RB(0)   INP2
00124  0130  EA20          CWK     A2,/7F
       0132  007F
00125  0134  5892          RB(0)   INP2
00126  0136  1300          ADK     A3,0
00127  0138  5A56          RB(2)   ASCINP
00128  013A  EA20          CWK     A2,/18
       013C  0018
00129  013E  5100  F       RF(1)   ASCII
00130  0140  EA20          CWK     A2,/14
       0142  0014
00131  0144  5100  F       RF(1)   OBJEC
00132  0146  EA20          CWK     A2,5
       0148  0005
00133  014A  5200  F       RF(2)   OBJEC
00134  014C  EA20          CWK     A2,/10
       014E  0010
00135  0150  5CAE          RB(4)   INP2
00136  0152  1301    OBJEC ADK     A3,1              * OBJECT
00137  0154  5F90          RB(7)   FIRST
00138  0156  1B01    ASCII SUK     A3,1
00139  0158  5F76          RB(7)   ASCINP
00140                    *
00141                    *
00142                    * PROCESS LOADING : THIS MODULE READ A CLUSTER
00143                    *        AND BRANCH ACCORDING TO THE CLUSTER TYPE
00144                    *
00145                    *        ON EXIT A1= BUFF ADDRESS PLUS ONE
00146                    *                A2= WORD COUNT
00147                    *                A3= TYPE
00148                    *        THE TYPE MUST BE 3,4,7 IF NOT THIS : HALT
00149                    ************************************************************************
00150  015A  82A0    PROLO LDK.L   A10,STAD          END ADDRESS 1ST CELL NOT FREE
       015C  0056  R
00151  015E  85A0          LDK.L   A13,OUTMSG
       0160  0068  R
00152                    ABA     EQU     0
00153  0162  81C1          ST      A9,BADDR          BADDR= BASE ADDRESS (FIRST CELL F
       0164  0096  R
00154  0166  20BF    PROGLD INH
00155  0168  5FD2    PROLO1 RB(7)   RAFL              READ A CLUSTER
00156  016A  8120          LDK.L   A1,BUFF
       016C  0000  F
00157  016E  0401          LDK     A4,1
00158  0170  E324          LCR     A3,A1             A3 = TYPE
00159  0172  1101          ADK     A1,1
00160  0174  E224          LCR     A2,A1             A2 = WORD COUNT
00161  0176  1101          ADK     A1,1
00162  0178  EB20          CWK     A3,3
       017A  0003
00163  017C  5000  F       RF(0)   CLCODE            BRANCH ON CLUSTER CODE
00164  017E  EB20          CWK     A3,4
       0180  0004
00165  0182  5000  F       RF(0)   CLIMOD            INTERNAL MODIFICATION
00166  0184  EB20          CWK     A3,7
       0186  0007
00167  0188  5000  F       RF(0)   CLEND             END/START
00168  018A  5F24          RB(7)   PROLO1
00169                    *
00170  018C  5FB8    CLCO1 RB(7)   STOP-10
00171                    *
00172                    *
00173                    *
00174                    ************************************************************************
00175                    ************************************************************************
00176                    * CLUSTER CODE (TYPE 3)
00177                    *        UPON ENTRY : A1=ADDRESS OF BUFF+1 (RBK)  ;A4=1
00178                    *                     A2= WORD COUNT
00179                    *                     A9= BADDRESS
00180                    *                     A10=ENDADDRESS
00181                    ************************************************************************
00182                    *
00183                    *
00184  018E  8340    CLCODE LD     A3,BUFF+6
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                0190  0000  F
00185           0192  5C2C              RB(4)    PROLO1          EMBK SET SKIP THE CLUSTER
00186           0194  8340        CLCO1A LD      A3,BUFF+4
                0196  0000  F
00187           0198  A311              TM       A3,A4           IS IT RELOCATABLE SECTION
00188           019A  5000  F           RF(0)    CLCO2           NO
00189           019C  9306              ADR      A3,A9           YES
00190           019E  5700  F           RF(7)    CLCO4
00191           01A0  81A0        CLCO2  LDK.L   A9,ABA
                01A2  0000
00192           01A4  8524        CLCO4  LDR*    A5,A1           A5=(RBK)
00193           01A6  1106              ADK      A1,6            A1=ADDRESS OF FIRST CODE WORD IN
00194           01A8  1A03              SUK      A2,3            A2= NUMBER OF CODE WORD
00195                               *                             A3= STORAGE ADDRESS
00196                               *                             A4= MASK FOR RBK
00197                               *                             A6= CODE WORD
00198           01AA  3CE1        CLCO5  SRC1    A4
00199           01AC  8624              LDR*     A6,A1
00200           01AE  EB06              CWR      A3,A9           TEST IF
00201           01B0  5A26              RB(2)    CLCO1           ADDRESS IS WITHIN
00202           01B2  EB0A              CWR      A3,A10          LIMITS , YES STORE
00203           01B4  5E2A              RB(6)    CLCO1           NO, HALT
00204           01B6  A511              TM       A5,A4
00205           01B8  5000  F           RF(0)    CLCO7
00206           01BA  9606              ADR      A6,A9
00207           01BC  862D        CLCO7  STR     A6,A3           YES STORE CODE WORDS

00208           01BE  1102              ADK      A1,2            UPDATE
00209           01C0  1302              ADK      A3,2
00210                               *                             POINTERS
00211           01C2  1A01              SUK      A2,1
00212           01C4  5C1C              RB(4)    CLCO5
00213           01C6  5F6E              RB(7)    PROLO
00214                               *
00215                               *
00216                               *
00217                               ********************************************************************************
00218                               ********************************************************************************
00219                               * INTERNAL MODIFICATION CLUSTERS
00220                               *
00221                               *       UPON ENTRY : A1 = ADDRESS OF BUFFER+1 (RBK)
00222                               *                    A2 = WORD COUNT
00223                               *                    A9 = BASE ADDRESS
00224                               *                    A10= END ADDRESS
00225                               ********************************************************************************
00226           01C8  0701        CLIMOD LDK     A7,1                    A7= MASK FOR ADDRESS
00227           01CA  8524              LDR*     A5,A1                   A5= (RBK)
00228           01CC  1A01              SUK      A2,1
00229           01CE  3CE1        CLIM1  SRC1    A4
00230           01D0  1102              ADK      A1,2
00231           01D2  8324              LDR*     A3,A1                   A3= ADDRESS
00232           01D4  A31D              TM       A3,A7                   IS IT RELOCATABLE
00233           01D6  5000  F           RF(0)    CLIM2                   NO
00234           01D8  9306              ADR      A3,A9                   YES ADD BASE
00235           01DA  EB06              CWR      A3,A9
00236           01DC  5A52              RB(2)    CLCO1                   TEST IF
00237           01DE  EB0A              CWR      A3,A10                  ADDRESS O.K.
00238           01E0  5E56              RB(6)    CLCO1                   NO HALT
00239           01E2  1102        CLIM2  ADK     A1,2                    YES
00240           01E4  8624              LDR*     A6,A1                   TAKE CODE WORD
00241           01E6  A511              TM       A5,A4                   IS IT RELOCATABLE
00242           01E8  5000  F           RF(0)    CLIM3                   NO
00243           01EA  9606              ADR      A6,A9
00244           01EC  862D        CLIM3  STR     A6,A3                   YES STORE CODE WORD
00245                               *                                     UPDATE
00246           01EE  1A02              SUK      A2,2                    POINTERS
00247           01F0  5C24              RB(4)    CLIM1                   CONTINUE
00248           01F2  5F9A              RB(7)    PROLO
00249                               *
00250                               *
00251                               *
00252                               ********************************************************************************
00253                               ********************************************************************************
00254                               * CLUSTER         END/START
00255                               *       UPON ENTRY   A1 = ADDRESS OF BUFF+1 (START ADDRESSE
00256                               *                    A2 = WORD COUNT
00257                               *                    A9 = BADDRESS
00258                               *                    A10= ENDADDRESS
00259           01F4  8324        CLEND  LDR*    A3,A1
00260           01F6  5000  F           RF(0)    CLEN3A                  FINISHED NO START ADDRESS
00261           01F8  A311              TM       A3,A4                   IS START ADDRESS RELOCATABLE
00262           01FA  5000  F           RF(0)    CLEN1                   NO
00263           01FC  9306              ADR      A3,A9                   YES
00264           01FE  EB06              CWR      A3,A9
00265           0200  5A76              RB(2)    CLCO1                   TEST IF ADDRESS
00266           0202  EB0A              CWR      A3,A10
00267           0204  5E7A              RB(6)    CLCO1                   CORRECT , NO HALT
00268           0206  A320        CLEN1  ANK.L   A3,/FFFE
                0208  FFFE
00269           020A  8341              ST       A3,COREND
                020C  0000  F
00270           020E  8140        CLEN3A LD      A1,BUFF+6               UPDATE BASE ADDRESS
                0210  0000  F
00271           0212  9141              AD.S     A1,BADDR
                0214  0096  R
00272           0216  9184              ADR      A9,A1
00273           0218  E98A              CWR      A9,A10
00274           021A  5AC2              RB(2)    PROLO
00275           021C  8120              LDK.L    A1,OFLMSG
                021E  005A  R
00276           0220  0206              LDK      A2,6
00277           0222  F697              CFR      A14,A13
00278           0224  207F              HLT                              OVERFLOW ON LENGTH
00279                               *
00280                               ********************************************************************************
00281                               *
00282           0226              BUFF   RES     35
00283           026C  FFFF              DATA     /FFFF
00284           026E  0000        COREND DATA    0
00285                               *
00286                               *
00287                               ********************************************************************************
00288                               MNLD   EQU     PROLO
00289                                      END                    length = 372 words
        SYMBOL TABLE

  ASR      0010  A   PTR      0020  A   S        0001  A   H        0000  A
  OUTMSG   0068  R   INR      0006  R   CFZON    0066  R   CKOK     0080  R
  ERCKSM   0022  R   CKERMG   002C  R   SYSMG    0038  R   STAD     0056  R
  ECMSG    0056  R   OFLMSG   005A  R   OTR      006E  R   SYSMSG   0080  **
  MNLD     015A  R   COREND   026E  R   BADDR    0096  R   RAFL     0098  R
  BUFF     0226  R   INP2     00A4  R   SWITCH   0128  R   OBJINP   00AA  R
  END2     00CC  R   OBJIN1   00C2  R   FIRST    00C6  R   PROLO1   0168  R
  STOP     00E0  R   ASCINP   00E4  R   END1     00F8  R   ASCII    0156  R
  OBJEC    0152  R   PROLO    015A  R   ABA      0000  A   PROGLD   0166  R
  CLCODE   018E  R   CLIMOD   01C8  R   CLEND    01F4  R   CLCO1    018C  R
  CLCO1A   0194  R   CLCO2    01A0  R   CLCO4    01A4  R   CLCO5    01AA  R
  CLCO7    01BC  R   CLIM1    01CE  R   CLIM2    01E2  R   CLIM3    01EC  R
  CLEN3A   020E  R   CLEN1    0206  R

          UND.LAB.    00001
          ASS.ERR.    00001
:EOS

:EOF
A::EOF

EXIT
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