

RCSL: 43-GL16
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; KEYWORD: MUS, INITIALIZATION, LISTING.
; ABSTRACT: MUS SYSTEM INITIALIZATION.
; ASCII PAPER TAPE RCSL 43-GL17.
; REL. BIN PAPER TAPE RCSL 43-GL18.

; ***** INIT MONITOR *****

.NREL
.TXTM 1
.TITL MUICO
.RDX 10
.ENT 18
R12=110
I0=247

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I8:      INTDS      ; SYSTEM START;
        DIA      0 24      ; INTERRUPT DISABLE;
        LDA      1 I2      ; SENSE(MT0,STATUS);
        AND      0,1 SZK   ; IF STATUS AND ERROR THEN
        HALT     ; HALT;
        NIQC     30      ; CLEAR AUTOLOAD;
        LDA      0 .NL     ;
        DDAS     0 29     ; CLEAR DISPLAY;
        SKPBZ    29      ;
        JMP      .-1      ;
        LDA      0 I29     ;
        DDAS     0 T10    ; HOMEUP;
        INC     0,0      ;
        INC     0,0      ;
        SKPBZ    T10     ;
        JMP      .-1      ;
        DDAS     0 T10    ;
        SKPBZ    T10     ; ERASE EOF
        JMP      .-1      ;
        IORST    ; RESET ALL DEVICES;
        LDA      0 MASK   ;
        MSKO     0      ; MASK OUT(MASK);
        LDA      0 FREQUENCY ;
        DDAS     0 RTC    ; START(RTC,FREQUENCY);
        LDA      1 PROGRAM ;
        STA      1 I0     ; PROGRAM:= PROGRAM CHAIN HEAD;
        LDA      2 FFIRST ;
        STA      2 16     ; INDEX:= BASE PROCESS;
        LDA      2 PROCESS ; OLD:= PROCESS CHAIN;
I10:    SUB      0,0      ; NEXT PROCESS;
        LDA#     3 16     ; PROC:= 0.INCR(INDEX);
        MOV#     3,3 SNR   ; IF PROC=0 THEN
        JMP      I10     ; GOTO NEXT PROCESS;
        STA      0 CHAIN,2 ; CHAIN,OLD:=0;
        INC#     3,3 SNR   ; IF PROC=-1 THEN
        JMP      I11     ; GOTO CLEAR DEVICE TABLE;
        STA      3 CHAIN,2 ; CHAIN,OLD:=PROC;
        MOV      3,2      ; OLD:= PROC;
        ; PROGRAM CHAIN;
        LDA      1 PROG,2  ; PROG:= PROG.PROC;
        LDA      3 I0     ;
        STA      1 CHAIN,3 ; CHAIN.PROGRAM:= PROG;
        STA      1 I0     ; PROGRAM:= PROG;
        MOV      1,3      ;
        STA      0 CHAIN,3 ; CHAIN.PROG:= 0;
        ; RUNNING QUEUE;
        JSR#     R12     ; LINK PROCESS(PROC);
        JMP      I10     ; GOTO NEXT PROCESS;
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I11:      LDA      2   CUR2      ; SET DEVICE TABLE;
          LDA      3   TABLE   ; VALUE:= .CUR
          LDA      1   TOPTABLE ; INDEX:= DEVICE TABLE+8;
I12:      STA      2   +8,3     ; SET NEXT;
          INC      3,3         ; 0.INDEX:=VALUE;
          SUB#     1,3 SZR      ; INDEX:= INDEX+1;
          JMP      I12        ; IF INDEX<>TOP OF DEV TABLE THEN
                                   ; GOTO SET NEXT;

          INC      2,2         ;
          INC      2,2         ;
          LDA      3   TABLE   ; RTC.DEVTABLE:=
          LDA      0   .RTC      ; VALUE+1
          ADD      0,3         ;
          STA      2   +0,3     ;
          SUB      2,2         ;
          LDA      1   .2048     ; CALCULATE SIZE;
                                   ; ADDR:= 0;
I13:      ; NEXT ADDR:
          ADD      1,2         ; ADDR:= ADDR+2048;
          LDA      0   +0,2     ; OLD:= 0.ADDR;
          STA      2   +0,2     ; 0.ADDR:= ADDR;
          LDA      3   +0,2     ; NEW:= 0.ADDR;
          STA      0   +0,2     ; 0.ADDR:= OLD;
          SUB      2,3 SNR      ; IF NEW=ADDR THEN
          JMP      I13         ; GOTO NEXT ADDR;
          STA      2   CORESIZE ; CORE SIZE:= ADDR;
          LDA      1   .128     ; LOADER:= CORESIZE-128;
          SUB      1,2         ;
          STA      2   FFIRST   ; FIRST FREE:= LOADER;
          JMP#     EXIT        ; EXIT;
                                   ; COMMENT: GOTO INTERRUPT RETURN;

I29:      29
.RDX 2
I2:      000000000100000
.RDX 10

; ***** END OF INIT MONITOR *****

.END I8 ; GOTO SYSTEM START;

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