TAPE1357: 54 MB

```
*)9BEG
*)9ENT TAPE1 TAPE3 TAPE5 TAPE7

% ====================================
% = ROUTINE  16.1                    =
% ====================================

%
% PROGRAM TO LAY OUT A SINTRAN III SYSTEM
% ON A PAPER-TAPE
%
% VALID FOR: S-III 79.07.15.A
%
% MODIFIED : 79.06.12  (BHQ)




BASE AA
INTEGER FORM,CUNIT,CHCB,SAVX,SAVT,BUFFP:=BUFFER
INTEGER DESTFILE,SOURCEFILE
INTEGER POINTER OUTTEXT:=9OUTTEXT,READTEXT:=8READTEXT,INBT:=9INBT
INTEGER POINTER OUTBT:=9OUTBT,MOVCHAR:=9MOVCHAR,TFEED:=9TFEED
INTEGER POINTER STSPACE:=9STSPACE,STAPO:=9STAPO,STCHAR:=9STCHAR
INTEGER POINTER MON70:=9MON70,COPYTEXT:=TEXTCOPY,COPYFILE:=FILECOPY
INTEGER POINTER LINK1,LINK2
ESAB

INTEGER APERIFILE:='$PERIPHERAL FILE NAME: '
INTEGER SYSTEM:='SYSTEM'
INTEGER PTERMINATE:='$--- FINISHED ---$'
INTEGER FILCOPY:='COPY-FILE ('
INTEGER ARRAY PERIFILE(40),BUFFER(140),YESNO(40)

INTEGER SAVB,SAVL,LUN
DISP 0
INTEGER POINTER PDEST,JOBNO      % PARAMETER POINTERS
PSID
DISP 7
INTEGER FINO                     % DISPLACEMENT IN FILE-NAMES
PSID

%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%
%% CONFIGURATION INDEPENDENT FILES.
%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%
INTEGER BPUN1:='(SINTRAN)BPUN1:SYMB'
INTEGER BPUN2:='(SINTRAN)BPUN2:SYMB'
INTEGER BPUN4:='(SINTRAN)BPUN4:SYMB'
INTEGER ULST1:='(SINTRAN)ULIST1:SYMB'
INTEGER ULST2:='(SINTRAN)ULIST2:SYMB'
INTEGER ULST4:='(SINTRAN)ULIST4:SYMB'

%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%
%% CONFIGURATION DEPENDANT FILES. (USER-NAME MUST BE 7 CHARACTERS.)
%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%
INTEGER BPUN5:='(AUX-SIN)BPUN-00-5:SYMB'
INTEGER BPUN6:='(AUX-SIN)BPUN-00-6:SYMB'
INTEGER BPUN7:='(AUX-SIN)BPUN-00-7:SYMB'
INTEGER BPUN8:='(AUX-SIN)BPUN-00-8:SYMB'
INTEGER BPUNA:='(AUX-SIN)BPUN-00-A:BPUN'
INTEGER BPUNB:='(AUX-SIN)BPUN-00-B:BPUN'
INTEGER BPUNE:='(AUX-SIN)BPUN-00-E:BPUN'
INTEGER BPUNX:='(AUX-SIN)BPUN-00-X:BPUN'
INTEGER LSIST:='(AUX-SIN)LIST-00:SYMB'

%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%
%% JOB NUMBERS IN ASCII. (00-99)
%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%
@ICR;
INTEGER ARRAY JBNO:=(
30060,30061,30062,30063,30064,30065,30066,30067,30070,30071,
30460,30461,30462,30463,30464,30465,30466,30467,30470,30471,
31060,31061,31062,31063,31064,31065,31066,31067,31070,31071,
31460,31461,31462,31463,31464,31465,31466,31467,31470,31471,
32060,32061,32062,32063,32064,32065,32066,32067,32070,32071,
32460,32461,32462,32463,32464,32465,32466,32467,32470,32471,
33060,33061,33062,33063,33064,33065,33066,33067,33070,33071,
33460,33461,33462,33463,33464,33465,33466,33467,33470,33471,
34060,34061,34062,34063,34064,34065,34066,34067,34070,34071,
34460,34461,34462,34463,34464,34465,34466,34467,34470,34471);
@CR;


%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%
%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%



SUBR   TAPE1
TAPE1: A:=:B=:SAVB; A:=:L=:SAVL
       CALL MODNA; CALL TPDU1
```

```
        SAVB=:B; SAVL=:L
        EXIT
RBUS

SUBR    TAPE3
TAPE3:  A:=:B=:SAVB; A:=:L=:SAVL
        CALL MODNA; CALL TPDU3
        SAVB=:B; SAVL=:L
        EXIT
RBUS

SUBR    TAPE5
TAPE5:  A:=:B=:SAVB; A:=:L=:SAVL
        CALL MODNA; CALL TPDU5
        SAVB=:B; SAVL=:L
        EXIT
RBUS

SUBR    TAPE7
TAPE7:  A:=:B=:SAVB; A:=:L=:SAVL
        CALL MODNA; CALL TPDU7
        SAVB=:B; SAVL=:L
        EXIT
RBUS
%%%
```

```
% OPEN THE NEXT BINARY FILE AND COPY TO PAPER-TAPE
        T:=SOURCEFILE; *MON 43; MON 65
        X:="LSIST"; T:=1; *MON 50; MON 65
        A=:SOURCEFILE; CALL COPYFILE

% COPY TEXT TO THE PAPER-TAPE
        "TXE1"; CALL COPYTEXT

% GIVE TAPE-FEED
        CALL TFEED

% CLOSE ALL FILES AND RETURN
        T:=SOURCEFILE; *MON 43; JMP *+1
        GO LINK2
RBUS


%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%
% DUMP TAPE-3 ON PAPER-TAPE
%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%

SUBR TPDU3

TPDU3: "AA"=:B
        A:=L=:"LINK2"

% GIVE TAPE-FEED
        CALL TFEED

% TEXT TO PAPER-TAPE
        "TXP3"; CALL COPYTEXT
        "TXST"; CALL COPYTEXT
        "TXT8"; CALL COPYTEXT

% COPY FILE TO PAPER-TAPE
X:="BPUNE";T:=1;*MON 50;MON 65
A=:SOURCEFILE;CALL COPYFILE

%TEXT TO DISKETTE
"TXE3"; CALL COPYTEXT

% GIVE TAPE-FEED
        CALL TFEED

% CLOSE ALL-FILES AND RETURN
        T:=SOURCEFILE; *MON 43; JMP *+1
        GO LINK2
RBUS


%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%
% PUNCH TAPE-5 TO PAPER-TAPE
%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%

SUBR TPDU5

TPDU5: "AA"=:B
        A:=L=:"LINK2"

% GIVE TAPE-FEED
        CALL TFEED

% TEXT TO DISKETTE
        "TXP5"; CALL COPYTEXT
        "TXST"; CALL COPYTEXT
        "TX13A"; CALL COPYTEXT
        T:=SOURCEFILE; *MON 43; MON 65
        X:="BPUNX"; T:=1; *MON 50; MON 65
        A=:SOURCEFILE; CALL COPYFILE
        "TX13B"; CALL COPYTEXT
        "TXT14"; CALL COPYTEXT

% COPY FILE TO PAPER-TAPE (BPUN-1-A)
        X:="BPUNA"; T:=1; *MON 50; MON 65
        A=:SOURCEFILE; CALL COPYFILE
        "TXT15"; CALL COPYTEXT
        "TXE5"; CALL COPYTEXT

% GIVE TAPE-FEED
        CALL TFEED

% CLOSE ALL FILES AND RETURN
        T:=SOURCEFILE; *MON 43; JMP *+1
        GO LINK2
RBUS


%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%
% PUNCH TAPE-7 TO PAPER-TAPE
%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%

SUBR TPDU7

TPDU7: "AA"=:B
```

```
          := =: ...K2

% GIVE TAPE-FEED
        CALL TFEED

% TEXT TO PAPER-TAPE
        "TXP7"; CALL COPYTEXT
        "TXST"; CALL COPYTEXT
        "TXT8"; CALL COPYTEXT

% COPY BPUN-1-8 TO PAPER-TAPE
        X:="BPUN8"; T:=1; *MON 50; MON 65
        A=:SOURCEFILE; CALL COPYFILE

% TEXT TO DISKETTE
        "TXT5"; CALL COPYTEXT
        "TXT6"; CALL COPYTEXT
        "TXT7"; CALL COPYTEXT
% CLOSE ALL FILES AND RETURN
        T:=SOURCEFILE; *MON 43; JMP *+1
        GO LINK2
RBUS

% READTEXT
% SUBROUTINE TO READ A TEXT STRING FROM THE TERMINAL
% THE INPUT SHOULD BE TERMINATED WITH CARRIAGE RETURN
%
% ENTRY: T=ADDRESS OF THE ARRAY WHERE THE TEXT STRING SHOULD
%        BE STORED
%
% RETURN: TEXT STRING TERMINATED WITH THE CHARACTER "!" IN THE ARRAY
%

SUBR &READTEXT
&READTEXT: A:=L=:"LINK1"
        X:=0; T=:D
        DO CALL INBT WHILE A><15
              IF A=21 THEN ##_; CALL OUTBT; X:=0; GO NEXT FI
              IF A=1 THEN ##^; CALL OUTBT; X-1; GO NEXT FI
              IF X>100 GO NEXT
              T:=D; *SBYT; AAX 1
NEXT:   OD; T:=D; ##'; *SBYT
        GO LINK1
RBUS

%
% INBT
% SUBROUTINE TO READ ONE CHARACTER FROM THE TERMINAL
%
% RETURN: A=CHARACTER
%

SUBR 9INBT
9INBT: T=:SAVT:=1; *MON 1; MON 65
       A/%177; T:=SAVT; EXIT
RBUS


%
% MOVCHAR
% SUBROUTINE TO MOVE CHARACTERS FROM A TEXT STRING TO AN ARRAY
%
% ENTRY: T=ADDRESS OF TEXT STRING
%

SUBR 9MOVCHAR
9MOVCHAR: A:=L=:"LINK1"
        T=:D; X:=0
        DO T:=D; *LBYT
           WHILE A><##'; CALL STCHAR; X+1
        OD; GO LINK1
RBUS

%
% STCHAR
% SUBROUTINE TO STORE ONE CHARACTER IN THE ARRAY NAMED BUFFER
%
% ENTRY: A=CHARACTER
%

SUBR 9STCHAR
9STCHAR: X=:SAVX:=CHCB; T:=BUFFP; *SBYT
        MIN CHCB; X:=SAVX; EXIT
RBUS

%
% STAPO - STSPACE
% SUBROUTINES TO STORE A SPACE OR A "'" IN THE ARRAY NAMED BUFFER
%

SUBR 9STAPO,9STSPACE
9STAPO: ##'; GO STCHAR
9STSPACE: 40; GO STCHAR
RBUS

%
```

```
% OUTTEXT
% SUBROUTINE TO PRINT A TEXT STRING ON THE TERMINAL
%
% ENTRY: A=ADDRESS OF THE TEXT STRING
%

SUBR 9OUTTEXT
9OUTTEXT: T:=L=:"LINK1"
        A=:D; X:=0
        DO T:=D; *LBYT
           WHILE A><##'
              IF A=##$ THEN 15; CALL OUTBT; 12 FI
              CALL OUTBT; X+1
        OD; GO LINK1
RBUS


%
% OUTBT
% SUBROUTINE TO OUTPUT ONE CHARACTER ON THE TERMINAL
%
% ENTRY: A=CHARACTER
%

SUBR 9OUTBT
9OUTBT: T=:SAVT:=1; *MON 2; MON 65
        EXIT
RBUS

%
% MON70
% SUBROUTINE TO EXECUTE THE MONITOR CALL COMND (MON 70)
%

SUBR 9MON70
9MON70: A:=BUFFP; *MON 70; EXIT
RBUS


%
% COPYTEXT
% SUBROUTINE TO COPY A TEXT STRING TO THE PAPER-TAPE
%
% ENTRY: A=ADDRESS OF TEXT STRING
%

SUBR TEXTCOPY
TEXTCOPY: A=:D; X:=0
        DO
              T:=D; *LBYT; AAX 1
          WHILE A><##'
              * BSET ZRO 70 DA; BSKP ZRO 60 DA; BSET BCM 70 DA
              * BSKP ZRO 50 DA; BSET BCM 70 DA; BSKP ZRO 40 DA
              * BSET BCM 70 DA; BSKP ZRO 30 DA; BSET BCM 70 DA
              * BSKP ZRO 20 DA; BSET BCM 70 DA; BSKP ZRO 10 DA
              * BSET BCM 70 DA; BSKP ZRO 00 DA; BSET BCM 70 DA
              T:=DESTFILE; *MON 2; MON 65
        OD; EXIT
RBUS


%
% COPYFILE
% SUBROUTINE TO COPY A FILE TO THE PAPER-TAPE
%

SUBR FILECOPY
FILECOPY: DO
              T:=SOURCEFILE; *MON 1; JMP OUT
              T:=DESTFILE; *MON 2; MON 65
        OD
OUT:    IF A=3 THEN EXIT FI
        *MON 65
RBUS


% TFEED
% SUBROUTINE TO GIVE TAPE-FEED

SUBR 9TFEED
INTEGER NOFEE:=100
9TFEED:"AA"=:B
        T:=L=:"LINK1"
        "AA"=:B
        A:=0; X:=NOFEE
        DO WHILE X><0
              T:=DESTFILE
              *MON 2; MON 65
              *AAX -1
        OD
        GO LINK1
RBUS


@MAC
```

```
)9RLPL
)9SCLC
TXT0,  '
XXX=4000 % RJO 06/06/78!!!!!!!!!!
YYY=100
ZZZ=4000
)9TABL XXX YYY ZZZ
'
TXT1, ')CLEAR

CRMAX=175777
CLM=100
COADR=30000
LONG=30000
XDSKT=0

)MCDEF REMOV
MSTYP=2
DEVNO=500
DASA=10
DRES=2000
MACAD=1000
BLTS=DRES
RTAD=4200
99MRE=MACAD
Q=3600
R

)MCDEF FIXED
MSTYP=2
DEVNO=500
DASA=100010
DRES=102000
MACAD=101000
BLTS=DRES
RTAD=104200
99MRE=MACAD
Q=103600
R

)MCDEF DRUM
MSTYP=0
DEVNO=540
DASA=40
DRES=4000
MACAD=2000
BLTS=DRES
RTAD=10400
99MRE=MACAD
Q=7400
R

)MCDEF BD33
MSTYP=3
DEVNO=1540
DASA=2
MACAD=200
DRES=400
BLTS=DRES
RTAD=1040
99MRE=MACAD
Q=740
R

)MCDEF BD38
MSTYP=4
DEVNO=1540
DASA=2
MACAD=200
DRES=400
BLTS=DRES
RTAD=1040
99MRE=MACAD
Q=740
R
)MCDEF BD66
MSTYP=3
DEVNO=1540
DASA=2
MACAD=200
DRES=400
BLTS=DRES
RTAD=1040
99MRE=MACAD
Q=740
R

)MCDEF BD75
MSTYP=4
DEVNO=1540
DASA=2
MACAD=200
DRES=400
BLTS=DRES
RTAD=1040
```

```
        =
Q=740
)KILL XDSKT
&

)MCDEF BD288
MSTYP=5
DEVNO=1540
DASA=2
MACAD=200
DRES=400
BLTS=DRES
RTAD=1040
99MRE=MACAD
Q=740
XDSKT=100000
&
)MCDEF BDREM
MSTYP=6
DEVNO=1540
DASA=2
MACAD=200
DRES=400
BLTS=DRES
RTAD=1040
99MRE=MACAD
Q=740
&
)MCDEF BDFIX
MSTYP=6
DEVNO=1540
DASA=100002
MACAD=100200
DRES=100400
BLTS=DRES
RTAD=101040
99MRE=MACAD
Q=100740
&


2,1$
%%
%% CHOOSE MASS STORAGE BY GIVING ONE OF THE FOLLOWING CODES
%% FOLLOWED BY CARRIAGE RETURN AND LINE FEED
%%
%% IF SYSTEM ON BIG-DISC 33 MEGABYTES, TYPE: BD33
%% IF SYSTEM ON BIG-DISC 38 MEGABYTES, TYPE: BD38
%% IF SYSTEM ON BIG-DISC 66 MEGABYTES, TYPE: BD66
%% IF SYSTEM ON BIG-DISC 75 MEGABYTES, TYPE: BD75
%% IF SYSTEM ON BIG-DISC 288 MEGABYTES, TYPE: BD288
%% IF SYSTEM ON REMOVABLE CARTRIDGE DISC, TYPE: REMOV
%% IF SYSTEM ON FIXED CARTRIDGE DISC, TYPE: FIXED
%% IF SYSTEM ON DRUM, TYPE: DRUM
%% IF SYSTEM ON REMOVABLE PHOENIX DISC, TYPE: BDREM
%% IF SYSTEM ON FIXED PHOENIX DISC, TYPE: BDFIX
%%
%% TYPE 2,0$ AND WHEN THE MACHINE ANSWERS WITH CARRIAGE RETURN
%% AND LINE FEED, TYPE 2,0$ TO CONTINUE
1,0$
'


TXT3, '
)9BYTT MSTYP DEVNO COADR LONG CLM BLTS MACAD CRMAX MACAD DASA
2,0,2$
)9READ
'


TXT5, '2,1$
%%
%% ALL CORRECTIONS (PATCHES) EXCEPT IN THE FILE SYSTEM AND
%% RT-LOADER MAY BE DONE NOW.
%%
%% AFTER YOUR CORRECTIONS, TYPE 2,0$
1,0$
'


TXT6, '30/DRES
2/XDSKT
)GJEM
)KILL CRMAX
CRMAX=77777
)9BYTT MSTYP DEVNO COADR LONG CLM BLTS DRES CRMAX MACAD DASA
'
TXT7, '2,1$
%%
%% IF YOU WANT A CTOM-TAPE, (SEE MACM-MANUAL)
%% TYPE 1,0,3$ AND )9CTOM
%%
%%
%% AFTERWARDS,
%% THE SINTRAN III SYSTEM MAY BE STARTED BY TYPING 22!
%%
1,0$
'
TXT8,  '2,0,2$
```

```
)9READ
'
TXT9,  '
)9BYTT MSTYP DEVNO COADR LONG CLM BLTS DRES CRMAX MACAD DASA
2,0,2$
)9READ
'
TXT10, '2,1$
%%
%% ALL CORRECTIONS (PATCHES) IN THE FILE SYSTEM MAY BE DONE NOW
%% AFTER YOUR CORRECTIONS, TYPE 2,0$
%%
1,0$
2,1$
%%
%% TYPE 2,0$ AND WHEN THE MACHINE ANSWERS WITH CARRIAGE RETURN
%% AND LINE FEED, TYPE 2,0$ TO CONTINUE
%%
2,0$
)9BYTT MSTYP DEVNO COADR LONG CLM BLTS RTAD CRMAX MACAD DASA
2,0,2$
)9READ
'
TXT11, '2,0$
'
TXT12, '2,0$
'
TXT13, '2,1$
%%
%% ALL CORRECTIONS (PATCHES) IN THE RT-LOADER MAY BE DONE NOW
%% AFTER YOUR CORRECTIONS, TYPE 2,0$, AND WHEN THE MACHINE
%% ANSWERS WITH CARRIAGE RETURN AND LINE FEED,
%% TYPE 2,0$ TO CONTINUE
%%
1,0$
'
TX13A, '
)9BYTT F G C D B N Q A L H
10,0,10$
)9READ
'
TX13B, '
10,1$
%% DUMPING OF SPOOLING-PROGRAM DONE
10,0$
'
TXT14, '
)9BYTT MSTYP DEVNO COADR LONG CLM BLTS 99MRE CRMAX MACAD DASA
2,0,2$
)9READ
'
TXT15, '2,1$
%%
%% ALL CORRECTIONS IN THE "PAGING-OFF" AREA MAY BE DONE NOW
%%
1,0$
'
TXST,  '% LOADING SEQUENCE: TAPE-1-2-3-4-5-6-7
% TYPE 2,0$ TO CONTINUE LOADING.
1,0$
'
TXP1,  '2,1$
% SINTRAN-III 79.07.15 LOAD:

% SINTRAN CONSISTS OF SEVEN TAPES.
% WHEN STARTING, EACH TAPE WILL IDENTIFY ITSELF.
% TAPES CAN THEN BE CHANGED TO MAINTAIN
% CORRECT LOADING SEQUENCE.

% THIS IS TAPE-1 (CONFIGURATION-DEPENDENT)
% ======================================
'
TXP3,  '2,1$
% THIS IS TAPE-3 (CONFIGURATION-DEPENDENT)
% ======================================
'
TXP5,  '2,1$
% THIS IS TAPE-5 (CONFIGURATION-DEPENDENT)
% ======================================
'
TXP7,  '2,1$
% THIS IS TAPE-7 (CONFIGURATION-DEPENDENT)
% ======================================
'
TXE1,  '2,1$
% PLACE TAPE-2 IN READER AND TYPE 2,0$
1,0$
'
TXE3,  '2,1$
% PLACE TAPE-4 IN READER AND TYPE 2,0$
1,0$
'
TXE5,  '2,1$
% PLACE TAPE-6 IN READER AND TYPE 2,0$
1,0$
'
```