

```
* ) 9BEG
* ) 9ENT TAPE2 TAPE4 TAPE6
```

```
% =====
% = 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)
```

TAPE 246 : SYMB

```
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 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'
INTEGER ARRAY PERIFILE(40),BUFFER(140),YESNO(40)
```

```
SUBR TAPE2
INTEGER SAVB,SAVL,PARPO
TAPE2: A=:PARPO
```

```
A:=:B=:SAVB
A:=:L=:SAVL
PARPO; CALL GDEST
CALL TPDU2
SAVB=:B
SAVL=:L
EXIT
```

RRUS

```
SUBR TAPE4
INTEGER SAVB,SAVL,PARPO
TAPE4: A=:PARPO
A:=:B=:SAVB
A:=:L=:SAVL
PARPO; CALL GDEST
CALL TPDU4
SAVB=:B
SAVL=:L
EXIT
```

RBUS

```
SUBR TAPE6
INTEGER SAVB,SAVL,PARPO
TAPE6: A=:PARPO
A:=:B=:SAVB
A:=:L=:SAVL
PARPO; CALL GDEST
CALL TPDU6
SAVB=:B
SAVL=:L
EXIT
```

RBUS

```
SUBR GDEST
DISP 0
INTEGER POINTER P1
PSID
INTEGER LUN
GDEST: A:=:B
P1=:LUN; "AA"=:B
LUN=:DESTFILE
EXIT
```

RBUS

%%%%%%%%%%

% DUMP TAPE-2 TO PAPER-TAPE

```
SUBR TPDU2
TPDU2: "AA"=:B
A=:L="LINK2"
```

```
% GIVE TAPE-FEED
CALL TFEED
```

```
% COPY TEXT TO THE TAPE
"TXP2"; CALL COPYTEXT; "TXST"; CALL COPYTEXT
"TXTR"; CALL COPYTEXT
```

```
% COPY (SINTRAN)BPUN2 TO THE TAPE
X="BPUN2"; T=:1; *MON 50; MON 65
A=:SOURCEFILE; CALL COPYFILE
```

```
% COPY TEXT TO PAPER-TAPE
"TXT11"; CALL COPYTEXT
```

```
% ULIST2 TO PAPER-TAPE
T=:SOURCEFILE; *MON 43; MON 65
X="ULST2"; T=:1; *MON 50; MON 65
A=:SOURCEFILE; CALL COPYFILE
```

```
% COPY TEXT TO THE PAPER-TAPE
"TXE2"; CALL COPYTEXT
```

```
% GIVE TAPE-FEED
CALL TFEED
```

```
% CLOSE ALL FILES
T=-1; *MON 43; JMP **1
GO LINK2
```

RBUS

%%%%%%%%%%

% DUMP TAPE-4 TO PAPER-TAPE

```
SUBR TPDU4
TPDU4: "AA"=:B
A=:L="LINK2"
```

```
% GIVE TAPE-FEED
CALL TFEED
```

```
%TEXT TO PAPER-TAPE
"TXP4"; CALL COPYTEXT; "TXST"; CALL COPYTEXT
"TYT10"; CALL COPYTEXT
```

```
% COPY (SINTRAN)BPUN1 TO PAPER-TAPE
X:="PPUN1"; T:=1; *MON 50; MON 65
A=:SOURCEFILE; CALL COPYFILE
```

```
% TEXT TO PAPER-TAPE
"TXT11"; CALL COPYTEXT
```

```
% COPY (SINTRAN)ULIST1 TO PAPER-TAPE
T=:SOURCEFILE; *MON 43; MON 65
X:="ULST1"; T:=1; *MON 50; MON 65
A=:SOURCEFILE; CALL COPYFILE; GO L1; *)FILL
```

```
% TEXT TO PAPER-TAPE
L1: "TXT13"; CALL COPYTEXT
    "TXE4"; CALL COPYTEXT
```

```
% GIVE TAPE-FEED
CALL TFEED
% CLOSE ALL FILES
T:=-1; *MON 43; JMP **1
GO LINK2
```

RBUS

```
%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%
% DUMP TAPE-6 ON PAPER-TAPE
```

SUBR TPDU6

```
TPDU6: "AA"=:B
      A=:L:="LINK2"
```

```
% GIVE TAPE-FEED
CALL TFEED
```

```
% TEXT TO PAPER-TAPE
"TXP6"; CALL COPYTEXT; "TXST"; CALL COPYTEXT
"TXT9"; CALL COPYTEXT
```

```
% COPY (SINTRAN)BPUN4 TO PAPER-TAPE
X:="BPUN4"; T:=1; *MON 50; MON 65
A=:SOURCEFILE; CALL COPYFILE
```

```
% TEXT TO PAPER-TAPE
"TXT11"; CALL COPYTEXT
```

```
% ULIST4 TO PAPER-TAPE
T=:SOURCEFILE; *MON 43; MON 65
X:="ULST4"; T:=1; *MON 50; MON 65
A=:SOURCEFILE; CALL COPYFILE
```

```
"TXE6"; CALL COPYTEXT
```

```
% GIVE TAPE-FEED
CALL TFEED
```

```
% CLOSE ALL-FILES
T:=-1; *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 8READTEXT
8READTEXT: 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/0177; T=:SAVT; EXIT
```

RPUS

```
%  
% 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
```

RPUS

```
%  
% 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
```

RPUS

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

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

```
%  
% 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
```

RPUS

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

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

RPUS

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

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

```
%  
% 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

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\$

'

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\$

'

TXST, '% LOADING SEQUENCE: TAPE-1-2-3-4-5-6-7

% TYPE 2,0\$ TO CONTINUE LOADING.

1,0\$

'

TXP2, '2,1\$

% THIS IS TAPE-2

% =====

'

TXP4, '2,1\$

% THIS IS TAPE-4

% =====

'

TXP6, '2,1\$

% THIS IS TAPE-6

% =====

'

TXE2, '2,1\$

% PLACE TAPE-3 IN READER AND TYPE 2,0\$  
1,0\$  
,

TXE4, '2,1\$  
% PLACE TAPE-5 IN READER AND TYPE 2,0\$  
1,0\$  
,

TXE6, '2,1\$  
% PLACE TAPE-7 IN READER AND TYPE 2,0\$  
1,0\$  
,

)9END

)9EOF

@

@EOF