

00010

XLIST

01970
00010

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00040
00050   EXTERNAL WSYNC, STOSQD, ILLOUT
00060   EXTERNAL STODAT, IOSET, SETBYT, CKS12, ADVBFF
00070   EXTERNAL SETIOD, PTRSAV, PTRCHN, PTRRET, PIOMOD
00080   INTERNAL PTRINT
00090
00100   ;PTR DEVICE DATA BLOCK LINKAGE
00110
00120   EXTERNAL PTRDB, PTRDAT, PTRCHR, PTRIOS, PTRSER, PTRMOD, PTRBUF
00130   EXTERNAL PTRADR, PTRPTR, PTRCTR, PTRSVC, PTRSV1
00140   ENTRY PTRDSP
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00150
00160 ,PARAMETER ASSIGNMENTS
00170 , PTR CONTROL REGISTER
00180 PTRDON=10; DONE FLAG
00190 PTRBSY=20; BUSY FLAG
00200 PTRBIN=40; BINARY READ MODE
00210 POW=400; POWER. ON=1
00220
00230 , SPECIAL IO STATUS WORD ASSIGNMENTS
00240 PTRERR=2000
00250 PTRFCI=200000
00260 PTRPOW=100000
00270 , SPECIAL ASCII CHARACTERS
00280 NULL=200
00290 RUBOUT=377
00300 S2EOF=232; END OF FILE
00310 , PI CONTROL REGISTER
00320 PION=200
00330 PIOFF=400
00340
00350 REPEAT 0,<
00360 ,PTR DATA BLOCK
00370 PTRDAT: SIXBIT "PTR"
00380 PTRCHR: 41
00390 PTRIOS: 0
00400 PTRSER: EXP PTRDSP
00410 PTRMOD: XWD 1000+PROG,10403
00420 0
00430 PTRBUF: 0
00440 PTRADR: XWD PROG,0
00450 PTRPTR: 0
00460 PTRCTR: 0
00470 PTRSVC: 0
00480 PTRSV1: 0
00490 >

00500
00510 ,PTR SERVICE DISPATCH TABLE
00520
00530 PTRDSP: JRST PTRREL ;RELEASE
00540 POPJ PDP,; CLOSE
00550 JRST ILLOUT ;OUTPUT
00560 JRST PTRINP; INPUT
00570
000000 254000 000134'
000001 263140 000000
000002 254000 000000
000003 254000 000004'

```

			00580		
			00590		
			00600		
000004	607000	000002	00610	PTRINP:	TLNN IOS,IOBEG;
000005	254000	000013	00620		JRST PTRIN1;
000006	661000	000004	00630		TLO IOS,IOFST;
000007	260140	000000	00640		PUSHJ PDP,SETBYT;
			00650		
000010	202040	000000	00660		MOVEM TAC,PTRPTR;
000011	710700	000400	00670		CONSZ PTR,POW;
000012	661000	100000	00680		TLO IOS,PTRPOW;
000013	660000	010000	00690	PTRIN1:	TRO IOS,IOACT;
000014	135040	000000	00700		LDB TAC,PIOMOD
000015	201100	000000	00710		MOVEI TAC1, PTRCHN;
000016	306040	000014	00720		CAIN TAC,B;
000017	271100	000040	00730		ADDI TAC1,PTRBIN;
000020	201040	000010	00740		MOVEI TAC,PTRDON ;SET CONSO INTERRUPT FLAG
000021	542040	000032	00750		HRRM TAC,PTRINT
000022	627000	000002	00760		TLZN IOS,IOBEG;
000023	254000	000027	00770		JRST PTRIN4;
000024	202000	000000	00780		MOVEM IOS,PTRIOS;
000025	710602	000020	00790		CONO PTR,PTRBSY(TAC1);
000026	263140	000000	00800		POPJ PDP,;
			00810		
000027	202000	000024	00820	PTRIN4:	MOVEM IOS,PTRIOS;
000030	710602	000010	00830		CONO PTR,PTRDON(TAC1);
000031	263140	000000	00840		POPJ PDP,;
			00850		

VIRGIN DEVICE? (IOBEG=1?)
NO
IOFST:=1. NEXT ITEM WILL BE FIRST ITEM
TAC0-5:=TAC12-13:=0,TAC6-11:=BYTE SIZE

TAC14-17:=PROG
PTRPTR:=C(TAC)
IS POWER ON?
YES. PTRPOW:=1
IOACT:=1

TAC1:=PTR PI CHANNEL ASSIGNME
MODE=BINARY?
YES. ALPHA/BINARY:=BINARY

VIRGIN DEVICE? (IOBEG=1?)
NO
PTRIOS:=C(IOUS)
PTR BUSY FLAG:=1,ASSIGN INTER
INPUT RETURN-VIRGIN DEVICE

PTRIOS:=C(IOUS)
PTR DONE FLAG:=1,ASSIGN INTER

			00860		
			00870		
000032	710740	000010	00880	PTRINT:	CONSO PTR, PTRDON ; INTERRUPT. IS DONE FLAG = 1?
000033	254000	000032'	00890		JRST PTRINT ; NO. IF PTR IS IN FLAG LIST, THIS LOC
000034	331000	000027'	00900		SKIPL PTRIOS ; DISCONNECT REQUEST? (IODISC=1?)
000035	710440	000000	00910		DATAI PTR, PTRSV1 ; PTRSV1: = DATA WORD
000036	264000	000000	00920		JSR PTRSAV ; SAVE ACCUMULATORS AND ESTABLISH PDP
000037	201300	000000	00930		MOVEI DEVDAT, PTRDAT ; DEVDAT: = PTR SIXBIT
000040	260140	000000	00940		PUSHJ PDP, IOSET ; PROG:=C(JBTADR18-35), ITEM:=C(DEVCTR)
000041	200000	000034'	00950		MOVE IOS, PTRIOS ; IOS:=C(PTRIOS)
000042	200240	000035'	00960		MOVE DAT, PTRSV1 ; DAT:=C(PTRSV1)
000043	710740	000400	00970		CONSO PTR, POW ; PTR POWER ON?
000044	254000	000075'	00980		JRST PTREND ; NO
000045	667000	100000	00990		TLO IOS, PTRPOW ; PTRPOW=1? PTRPOW:=1
000046	254000	000131'	01000		JRST PTREX1 ; NO
000047	623000	400000	01010		TLZE IOS, IODISC
000050	254000	000121'	01020		JRST PTREX
000051	623000	200000	01030		TLZE IOS, PTRFCI ; IS PTRFCI=1?
000052	200240	000000	01040		MOVE DAT, PTRSVC ; YES. DAT:=C(PTRSVC)
000053	602000	000014	01050	PTRIN0:	TRNE IOS, B ; MODE=BINARY?
000054	254000	000061'	01060		JRST PTRI0 ; YES
000055	302240	000200	01070		CAIE DAT, NULL ; LAST CHARACTER NULL OR RUBOUT?
000056	306240	000377	01080		CAIN DAT, RUBOUT
000057	254000	000131'	01090		JRST PTREX1 ; YES
000060	322240	000131'	01100		JUMPE DAT, PTREX1 ; DAT=0?
			01110		
000061	260140	000000	01120	PTRI0:	PUSHJ PDP, STODAT ; NO STORE DATA WORD.
000062	255000	000000	01130		JFCL ; CHECKSUM ERROR
000063	254000	000065'	01140		JRST PTRI1 ; BLOCK FULL OR BLOCK COMPLETE
000064	254000	000131'	01150		JRST PTREX1 ; DATA STORED CORRECTLY.
			01160		
000065	260140	000000	01170	PTRI1:	PUSHJ PDP, ADVBFF ; ADVANCE BUFFER
000066	661000	400000	01180		TLO IOS, IODISC; NEXT BUFFER IS FULL. IODISC:=1
000067	602000	000040	01190		TRNE IOS, IOCON; NEXT BUFFER IS EMPTY. CONTINUOUS? (IOC
000070	661000	400000	01200		TLO IOS, IODISC; NON-CONT. OPERATION. IODISC:=1
000071	661000	000004	01210	PTRI2:	TLO IOS, IOFST; IOFST:=1. NEXT ITEM IS FIRST ITEM OF A
000072	623000	000001	01220		TLZE IOS, IOW; IN A WAIT? IOW:=0
000073	260140	000000	01230		PUSHJ PDP, SETIOD; IOWS:=1
000074	254000	000131'	01240		JRST PTREX1

			01250	
			01260	
			01270	, COME HERE WHEN THE READER IS SHUT OFF
			01280	
			01290	
000075	630000	000137'	01300	PTREND: TDZ IOS,[XWD PTRPOW,IOACT] ;PTRPOW:=0,IOACT:=0
000076	260140	000134'	01310	PUSHJ PDP, PTRREL ;CLEAR PTR AND CONSO FLAG
000077	135040	000014'	01320	LDB TAC, PIOMOD
000100	661000	000040	01330	TLO IOS, IOEND ;IOEND:=1
000101	602040	000014	01340	TRNE TAC, B ;MODE=A,AL
000102	254000	000114'	01350	JRST PTREIB ;NO
000103	201240	000232	01360	MOVEI DAT, S2EOF; EOF CHAR
000104	260140	000061'	01370	PUSHJ PDP, STODAT ;STORE DATA WORD
000105	254000	000062'	01380	JRST PTRI0+1 ;CHECKSUM ERROR
000106	254000	000111'	01390	JRST .+3 ;BLOCK FULL OR BLOCK COMPLETE
000107	260140	000000	01400	PTREI: PUSHJ PDP, STOSQD; FINISH THIS BUFFER, STORE WORD COUNT
000110	330000	000000	01410	SKIP
000111	260140	000065'	01420	PUSHJ PDP, ADVBFF ;ADVANCE BUFFER
000112	330000	000000	01430	SKIP
000113	254000	000071'	01440	JRST PTRI2
			01450	
000114	302040	000014	01460	PTREIB: CAIE TAC, B ;MODE=BINARY?
000115	254000	000107'	01470	JRST PTREI ;NO
000116	607000	000004	01480	TLNN IOS, IOFST ;IOFST=1?
000117	660000	002000	01490	TRO IOS, PTRERR ;NO. PTRERR:=1. BINARY BLOCK INCOMPLE
000120	254000	000071'	01500	JRST PTRI2

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                                01510
                                01520
                                01530      ,DISCONNECT PTR
000121  337020 000000      01540      PTREX:   SKIPG @PTRADR      ;IOUSE=1?
000122  254000 000125'    01550      JRST PTREX0      ;YES.
000123  710440 000042'    01560      DATAI PTR,PTRSV1
000124  254000 000053'    01570      JRST PTRIN0
                                01580
000125  710440 000052'    01590      PTREX0:  DATAI PTR,PTRSV1  ;SAVE LAST DATA WORD FROM PTR
000126  260140 000134'    01600      PUSHJ PDP,PTRREL  ;CLEAR PTR AND CONSO FLAG
000127  661000 200000      01610      TLO IOS,PTRFCI    ;PTRFCI:=1
000130  620000 010000      01620      TRZ IOS,IOACT     ;IOACT:=0
                                01630
000131  202200 000000      01640      PTREX1:  MOVEM ITEM,PTRCTR  ;PTRCTR:=C(ITEM)
000132  202000 000041'    01650      MOVEM IOS,PTRIOS  ;PTRIOS:=C(IOS)
000133  254000 000000      01660      JRST PTRRET      ;RESTORE ACCUMULATORS AND DISMISS INTER
                                01670
                                01680      INTERNAL PTRINI
                                01690
                                01700
000134  710600 000000      01710      PTRINI:
000135  513000 000032'    01720      PTRREL:  CONO PTR,0      ;CLEAR PTR CONTROL
000136  263140 000000      01730      HLLZS PTRINT     ;CLEAR CONSO FLAG
                                01740      POPJ PDP,
000137  100000 010000      01750      END,
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THERE ARE NO ERRORS

PROGRAM BREAK IS 000140

A	000000	INT
AC1	000015	INT
AC2	000016	INT
AC3	000017	INT
ADVBFF	000111	EXT
AL	000001	INT
ASSCON	400000	INT
ASSPRG	200000	INT
R	000014	INT
BUFPNT	000012	INT
BUFWRD	000013	INT
CKS12	000000	EXT
CLOSR	002000	INT
CLSIN	000002	INT
CLSOUT	000001	INT
D	000017	INT
DAT	000005	INT
DCL	000001	INT
DCW	020000	INT
DDI	000007	INT
DDO	000006	INT
DDTMEM	000037	INT
DDTSYM	000036	INT
DEN	000004	INT
DEVADR	000007	INT
DEVBUF	000006	INT
DEVCHR	000001	INT
DEVCTR	000011	INT
DEVDAT	000006	INT
DEVIAD	000007	INT
DEVIOS	000002	INT
DEVLOG	000005	INT
DEVMOD	000004	INT
DEVNAM	000000	INT
DEVOAD	000010	INT
DEVPTR	000010	INT
DEVSER	000003	INT
DGF	000012	INT
DIN	000003	INT
DLK	000005	INT
DOU	000002	INT
DR	000016	INT
DRL	000000	INT
DSI	000011	INT
DSO	000010	INT
DTW	040000	INT
DVAVAL	000040	INT
DVCDR	100000	INT
DVDIR	000004	INT
DVDIRI	400000	INT
DVIN	000002	INT
DVLPT	040000	INT
DVMTA	000020	INT
DVOUT	000001	INT
DVTY	000010	INT

PTRSER - PAPER TAPE READER SERVICE ROUTINE
 SYMBOL TABLE

ENTRB	020000	INT
I	000010	INT
IB	000013	INT
IBUFB	200000	INT
ILLOUT	000002'	EXT
INITR	400000	INT
INPB	010000	INT
IO	000020	INT
IOACT	010000	INT
IOREG	000002	INT
IORKTL	040000	INT
IOCON	000040	INT
IODEND	020000	INT
IODERR	200000	INT
IODISC	400000	INT
IODONE	400000	INT
IODTER	100000	INT
IOFND	000040	INT
IOFST	000004	INT
IOIMPM	400000	INT
IONRCK	000100	INT
IORDEL	000100	INT
IORET	000020	INT
IOS	000000	INT
IOSET	000040'	EXT
IOSTRT	000010	INT
IOUSE	400000	INT
IOW	000001	INT
IOWC	000020	INT
IOWS	400000	INT
ITEM	000004	INT
JBFADR	000000	INT
JBFCR	000002	INT
JBFPTR	000001	INT
JBUF	000005	INT
JDAT	000011	INT
JERR	002000	INT
JIOW	100000	INT
JNA	004000	INT
LOOKR	040000	INT
MTW	010000	INT
NULL	000200	
OBUFB	100000	INT
OUTPB	004000	INT
PDP	000003	INT
PICHN	000100	INT
PIOFF	000400	
PIOMOD	000077'	EXT
PION	000200	
POW	000400	
PROG	000007	INT
PTRADR	000121'	EXT
PTRBIN	000040	
PTRBSY	000020	
PTRBUF	000000	EXT

PTRCHN	000015'	EXT
PTRCHR	000000	EXT
PTRCTR	000131'	EXT
PTRDAT	000037'	EXT
PTRDB	000000	EXT
PTRDON	000010	
PTRDSP	000000'	INT
PTREI	000107'	
PTREIB	000114'	
PTREND	000075'	
PTRERR	002000	
PTREX	000121'	
PTREX0	000125'	
PTREX1	000131'	
PTRFCI	200000	
PTRI0	000061'	
PTRI1	000065'	
PTRI2	000071'	
PTRIN0	000053'	
PTRIN1	000013'	
PTRIN4	000027'	
PTRINI	000134'	INT
PTRINP	000004'	
PTRINT	000032'	INT
PTRIOS	000132'	EXT
PTRMOD	000000	EXT
PTRPOW	100000	
PTRPTR	000010'	EXT
PTRREL	000134'	
PTRRFT	000133'	EXT
PTRSAV	000036'	EXT
PTRSER	000000	EXT
PTRSV1	000123'	EXT
PTR SVC	000125'	EXT
RUR0UT	000377	
RUN	200000	INT
RUNABL	204000	INT
S2FOF	000232	
SETBYT	000007'	EXT
SETIOD	000073'	EXT
STODAT	000104'	EXT
STOSQD	000107'	EXT
TAC	000001	INT
TAC1	000002	INT
TEM	000010	INT
TTYATC	020000	INT
TTYUSE	010000	INT
USRM0D	010000	INT
UU0	000014	INT
WSYNC	000000	EXT

END OF ASSEMBLY