

SYSTEMS ENGINEERING LABORATORIES PROGRAM LIBRARY

PROGRAM DESCRIPTION

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Catalog Number 310006A

IDENTIFICATION: SEL 810A/B I/Ø Handler for ASR-33 and high-speed paper tape

AUTHOR: Systems Engineering Laboratories

ACCEPTED: January 1, 1968

PURPOSE: To provide a free-standing I/Ø handler to communicate with ASR-33 and high-speed Paper Tape.

COMPUTER CONFIGURATION: SEL 810A/B Computer with or without high-speed Paper Tape.

SUBROUTINES REQUIRED: UN\$PAK and CØMMØN locations (Catalog Number 300020A)

STORAGE: HKEY\$I - 15₈
BTAP\$I and HTAP\$I - 16₈
BHSP\$I and HHSP\$I - 16₈
which all call T\$INP - 153₈

HKEY\$Ø - 12₈
BTAP\$Ø and HTAP\$Ø - 16₈
BHSP\$Ø and HHSP\$Ø - 16₈
which all call T\$ØUT - 203₈

TIMING: N/A

USE: I/O handler tape is loaded after user's program. Only those handlers requested will be loaded.

CALLING

SEQUENCE: To input from/write to the ASR-33 (keyboard or paper tape) and high-speed paper tape, the calling sequence is:

CALL	(I/O handler needed)
DAC	BUF
FØRM	1, 15
FDAT	X, Y

where BUF - address of the first location of the buffer

X - number of characters per word (0 for 1 char/word, 1 for 2 chars/word)

Y - number of words in the buffer

METHOD: ASR-33 KEYBOARD

1.0 Input: I/O Handler name is HKEY\$I:

For 1 character per word a full ASCII character is stored in user's buffer in bits 8-15. For 2 characters per word ASCII characters are stored in bits 0-7 and 8-15 of user's buffer. All characters are printed on the ASR-33 when input. The remainder of the user's buffer is filled with either 1 or 2 ASCII blanks if a carriage return ('215) is encountered before the buffer is full. A delete ('377), and line feed ('212) are ignored. An ('336) will cause characters already input to be ignored plus all characters following until a carriage return is typed. This allows the user to have another attempt at typing a line which has an

METHOD:

(Cont'd)

error in it. Input is always terminated on a carriage return even if the word count Y has not been reached.

2.0 Output: I/Ø Handler name is HKEY\$Ø:

The first character is checked to see if it is one of the following characters:

- 1 Output 4 line feeds and a carriage return to simulate a skip to top of page.
- 0 Output 2 line feeds and a carriage return to double space.
- + Output 1 carriage return and no line feed.

If the first character is not one of these then 1 carriage return and line feed is issued. In no case will the first character be printed.

On encountering an ASCII blank, the remainder of the user's buffer is scanned. If all remaining characters are blanks, outputting stops. This will eliminate unnecessary carriage movement. Only the first 73 characters (or less) of the buffer are processed. This allows 1 carriage control character and 72 print positions.

3.0 HIGH SPEED PAPER TAPE READER/PUNCH ASCII data:

Input: I/Ø handler name is HHSP\$I:

The same routine as is used for keyboard input is used here. It should be noted that a zero character is also ignored, that is,

paper tape is read until a non-zero character is obtained.

Output: I/O Handler name is HHSP\$Ø:

Only check made is for trailing blanks. They are not output. The handler follows the contents of the user's buffer with a carriage return and line feed.

4.0 BINARY data:

Input: I/O handler name is BHSP\$I:

N_o special checks are made.

Output: I/O Handler name is BHSP\$Ø:

The handler follows the contents of the user's buffer with a carriage return and line feed.

5.0 PAPER TAPE READER/PUNCH ON TELETYPE

Input: I/O handler name is BTAP\$I:

Operates like high-speed paper tape input.

Output: I/O handler name is BTAP\$Ø:

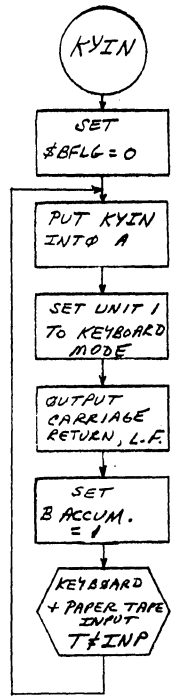
Operates like high-speed paper tape output.

SUBROUTINES: (included with this catalog number)

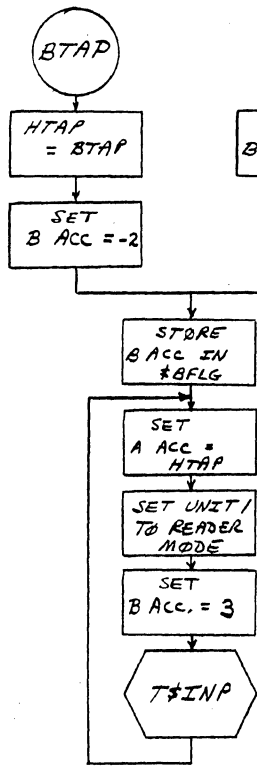
T\$INP - Main routine to allow inputting on ASR-33 and high-speed paper tape.

T\$OUT - Main routine to allow outputting on ASR-33 and high-speed paper tape.

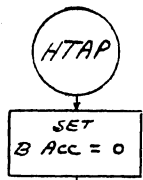
HKEY#I



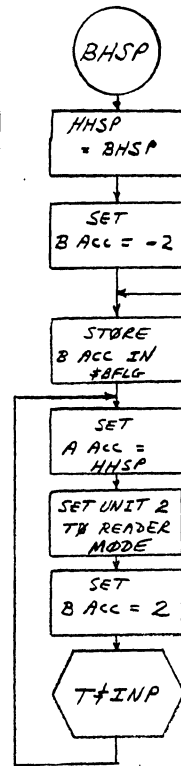
BTAP#I



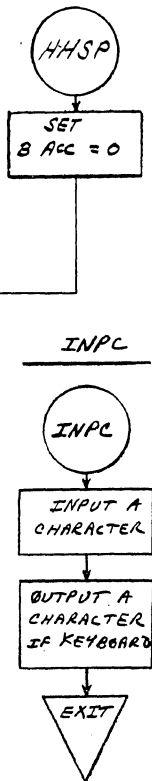
HTAP#I



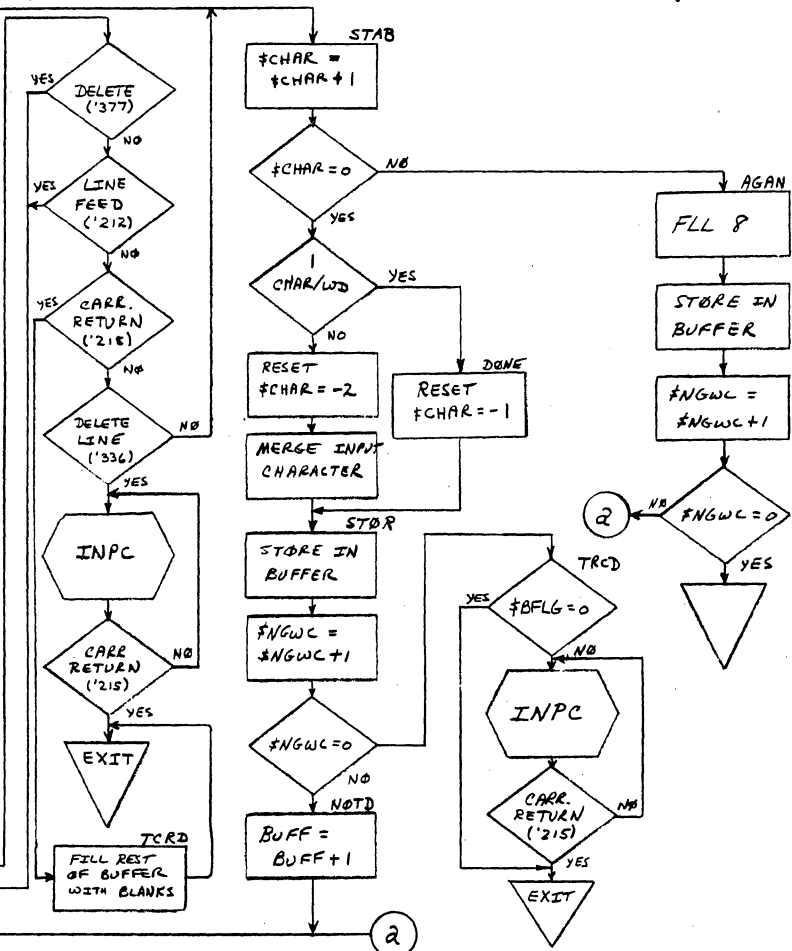
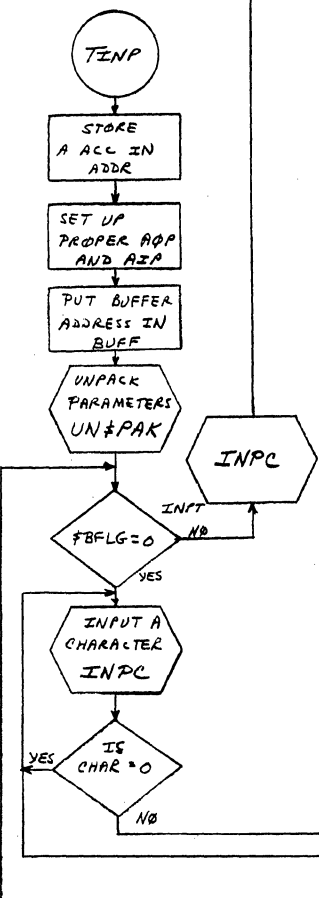
BHSP#I



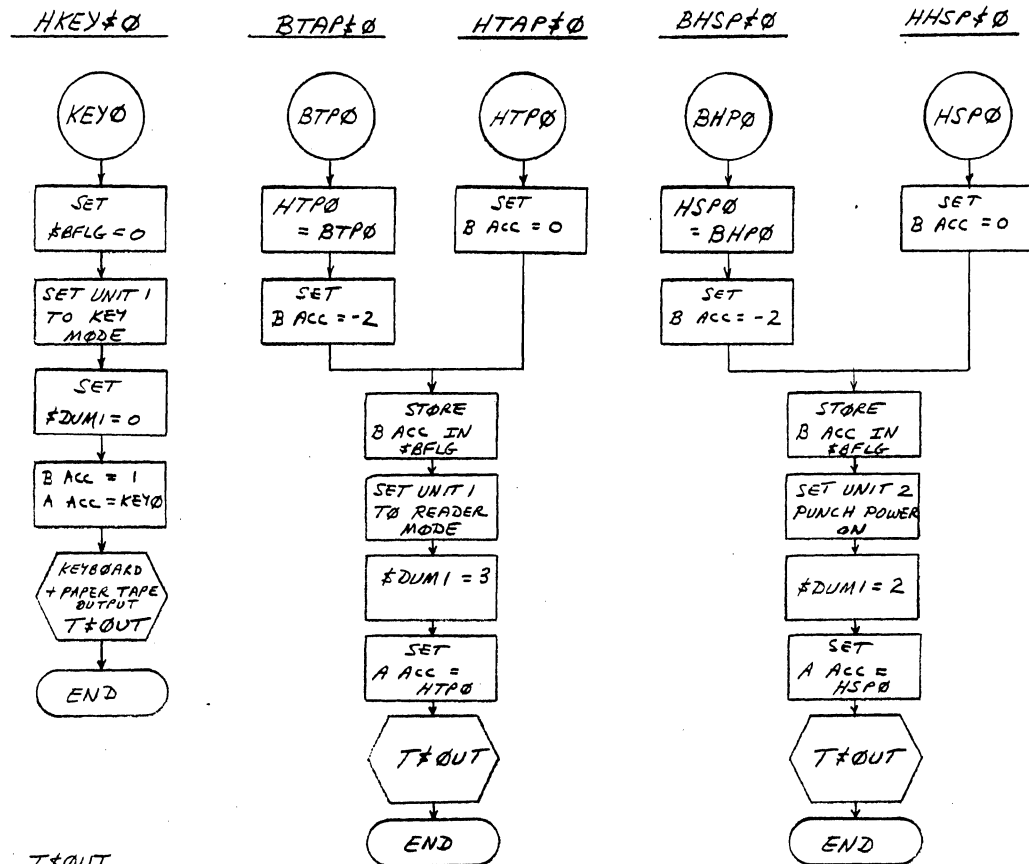
HHSP#I



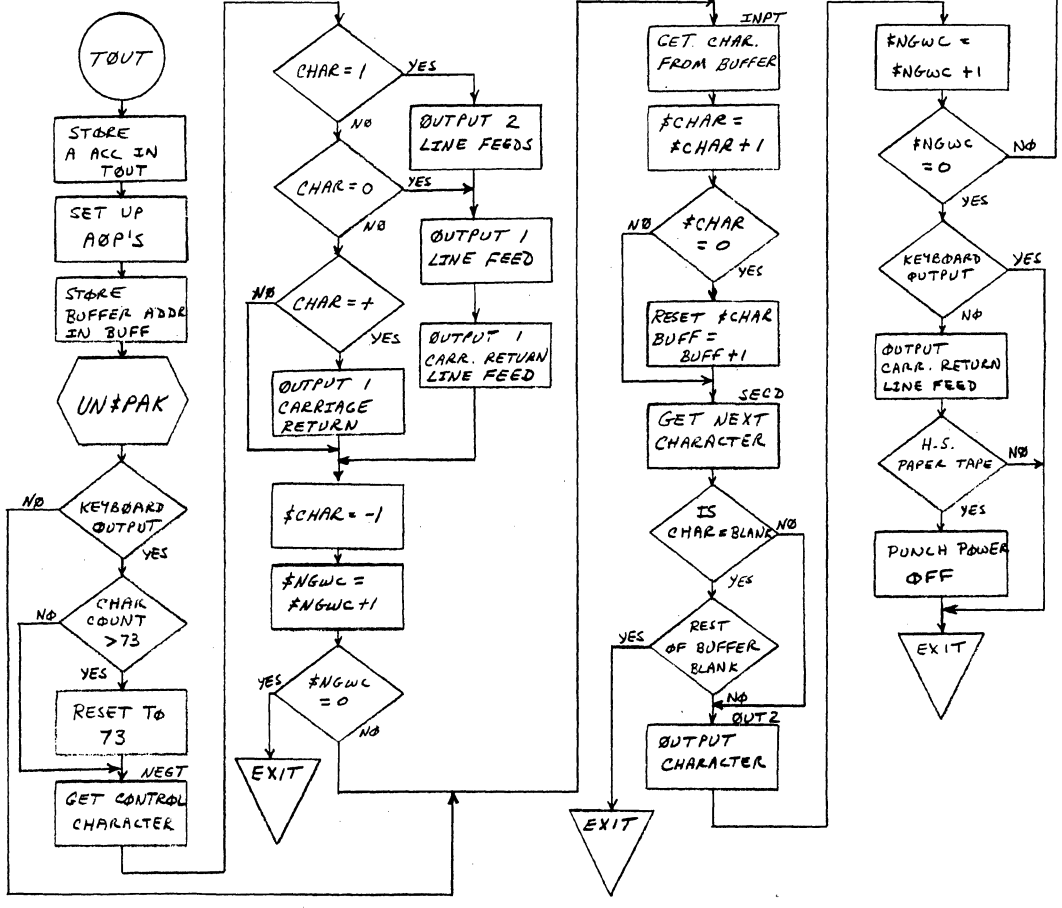
T#INP



2



T#OUT



```

0002 00000 00000000 * JANUARY 2, 1968
0003 00000 00000000 *
0004 00000 00000000 * I/O HANDLER FOR ASR-33 AND HIGH SPEED PAPER TAPE
0005 00000 00000000 *
0006 00000 00000000 * KEYBOARD INPUT HANDLER
0007 00000 00000000 *
0008 00000 00000000 REL
0009 00000 50000000 NAME HKEYSI, KYIN
0010 00000 00000000 KYIN *** ** ENTRY POINT - ASR KEYBOARD
0011 00001 02000000 LBA =0 SET BFLG FOR ASCII
0012 00002 52100000 STB SBFLG
0013 00003 01100000 LAA KYIN ADDRESS OF CALLING SEQUENCE
0014 00004 00130101 CFU 1,W
0015 00005 00002000 DATA '2000 KEYBOARD MODE
0016 00006 00170501 MOP 1,W
0017 00007 00106400 DATA '106400 CARRIAGE RETURN
0018 00010 00170501 MOP 1,W
0019 00011 00105000 DATA '105000 LINE FEED
0020 00012 02000001 LBA =1 FLAG AS KEYBOARD INPUT
0021 00013 55100000 CALL T$INP
0022 00014 11100003 BRU KYIN+3
0023 00015 70400000 END
KYIN 00000
ERRORS 0000 00000

```


0001	00000	00000000	*ASR	PAPER TAPE HANDLER	
0002	00000	00000000	*		
0003	00000	00000000	REL		
0004	00000	50000000	NAME	BTAPSI,BTAP	
0005	00000	50000005	NAME	HTAPSI,HTAP	
0006	00000	00000000	BTAP	*** **	ENTRY POINT - ASR BINARY TAPE
0007	00001	01100000	LAA	*-1	
0008	00002	03100005	STA	HTAP	
0009	00003	02077776	LBA	=-2	SET FLAG FOR BINARY
0010	00004	11100007	BRU	**+3	
0011	00005	00000000	HTAP	*** **	ENTRY POINT - ASR ASCII PAPER TAPE
0012	00006	02000000	LBA	=0	SET FLAG FOR ASCII
0013	00007	52100000	STB	\$BFLG	
0014	00010	01100005	LAA	HTAP	ADDRESS OF CALLING SEQUENCE
0015	00011	00130101	CEU	1,W	
0016	00012	00004000	DATA	*4000	READER MODE
0017	00013	02000003	LBA	=3	FLAG AS ASR PAPER TAPE INPUT
0018	00014	55100000	CALL	TSIN0	
0019	00015	11100010	BRU	HTAP+3	RESTART INPUT - DELETE ENCOUNTERED
0020	00016	70400000	END		
	BTAP	00000			
	HTAP	00005			
ERRORS	0000	00000			

1	PAGE	0003	SEL 810A-B I/O HANDLER	J.P. GUDFREY	CATALOG NO. 310006A
0001	00000	00000000	*HSP	TAPE INPUT HANDLER	
0002	00000	00000000	*		
0003	00000	00000000	REL		
0004	00000	50000000	NAME	BHSP#1, BHSP	
0005	00000	50000005	NAME	HHSP#1, HHSP	
0006	00000	00000000	BHSP	*** **	ENTRY POINT - HSP BINARY
0007	00001	01100000	LAA	*-1	
0008	00002	03100005	STA	HHSP	
0009	00003	02077776	LBA	=-2	SET BFLG FOR BINARY
0010	00004	11100007	BRU	**+3	
0011	00005	00000000	HHSP	*** **	ENTRY POINT - HSP ASCII
0012	00006	02000000	LBA	=0	SET BFLG FOR ASCII
0013	00007	52100000	STB	%BFLG	
0014	00010	01100005	LAA	HHSP	ADDRESS OF CALLING SEQUENCE
0015	00011	00130102	CEU	2,W	
0016	00012	00001000	DATA	'1000	READER MODE
0017	00013	02000002	LBA	=2	
0018	00014	55100000	CALL	TSINP	
0019	00015	11100010	BRU	HHSP+3	RESTART INPUT - DELETE ENCOUNTERED
0020	00016	70400000	END		
		BHSP	00000		
		HHSP	00005		
ERRORS	0000	00000			

0001	00000	00000000	* TINP	-	KEYBOARD AND PAPER TAPE INPUT ROUTINE
0002	00000	00000000	*		
0003	00000	00000000	REL		
0004	00000	50000000	NAME	TSINP, TINP	
0005	00000	00000000	TINP	*** **	ADDRESS OF HANDLER CALLING TINP
0006	00001	03100143	STA	ADDR	ORIGINAL CALLING ADDRESS
0007	00002	01500143	LAA	ADDR.1	
0008	00003	03100134	STA	API	
0009	00004	01500147	LAA	BUFF.1	
0010	00005	03100136	STA	API	
0011	00006	01300143	LAA*	ADDR	
0012	00007	03100147	STA	BUFF	STORE BUFFER ADDRESS
0013	00010	01100143	LAA	ADDR	
0014	00011	55100000	CALL	UN\$PAK	UNPACK DATA WORD AND SET FLAGS
0015	00012	03100143	STA	ADDR	
0016	00013	50500000	INPT	LAA	\$BFLG
0017	00014	00000022	SAZ		BINARY INPUT
0018	00015	11100141	BRU	RIN1	YES
0019	00016	12100133	SPB	INPC	NO
0020	00017	00000022	SAZ		
0021	00020	11100022	BRU	**2	
0022	00021	11100016	BRU	INPT+3	IGNORE ZERO
0023	00022	15000377	CMA	= '377	
0024	00023	11100025	BRU	**2	
0025	00024	11100016	BRU	INPT+3	IGNORE DELETE
0026	00025	15000212	CMA	= '212	
0027	00026	11100030	BRU	**2	
0028	00027	11100016	BRU	INPT+3	IGNORE LINE FEED
0029	00030	15000215	CMA	= '215	
0030	00031	11100033	BRU	**2	
0031	00032	11100074	BRU	TCRD	TERMINATE ON CARRIAGE RETURN
0032	00033	15000336	CMA	= '336	
0033	00034	11100044	BRU	STAB	
0034	00035	11100037	BRU	**2	DELETE LINE OF INPUT
0035	00036	11100044	BRU	STAB	
0036	00037	12100133	SPB	INPC	INPUT CHARACTER
0037	00040	06000215	SMA	= '215	
0038	00041	00000022	SAZ		WAS IT A CARRIAGE RETURN
0039	00042	11100037	BRU	*-3	NO

0040	00043	11300000	BRU*	TINP	GO START AGAIN
0041	00044	00000005	STAB	TAB	
0042	00045	56100000	IMS	\$CHAR	IS CHAR/WORD COUNT = 0
0043	00046	11100067	BRU	AGAN	NO
0044	00047	50500000	LAA	\$CFLG	YES
0045	00050	00000023	SAN		ONE CHAR/WORD
0046	00051	11100063	BRU	DONE	YES
0047	00052	51500000	STA	\$CHAR	NO
0048	00053	01300147	LAA*	BUFF	
0049	00054	00000030	ØBA		
0050	00055	03300147	STØR	STA* BUFF	STORE CHARACTER (S)
0051	00056	56100000	IMS	\$NGWC	INCREMENT CHAR COUNT
0052	00057	11100061	BRU	NØTD	
0053	00060	11100123	BRU	TRCD	TERMINATE
0054	00061	14100147	NØTD	IMS BUFF	INCREMENT BUFFER ADDRESS
0055	00062	11100013	BRU	INPT	GO DO MORE I/O
0056	00063	01077777	DØNE	LAA =-1	
0057	00064	51500000	STA	\$CHAR	RESET CHAR COUNT
0058	00065	00000004	TBA		
0059	00066	11100055	BRU	STØR	
0060	00067	00001013	AGAN	FLL 8	LEFT ADJUST CHARACTER
0061	00070	04300147	STB*	BUFF	STORE LAST CHARACTER
0062	00071	56100000	IMS	\$NGWC	INCREMENT CHAR COUNT
0063	00072	11100013	BRU	INPT	GO DO MORE I/O
0064	00073	11300143	BRU*	ADDR	RETURN USER
0065	00074	50500000	TCRD	LAA \$CHAR	
0066	00075	56500000	CMA	\$CFLG	
0067	00076	11100105	BRU	FILL	
0068	00077	11100105	BRU	FILL	
0069	00100	01300147	LAA*	BUFF	
0070	00101	02000240	LBA	= '240	
0071	00102	00000030	ØBA		
0072	00103	03300147	STA*	BUFF	
0073	00104	14100147	IMS	BUFF	
0074	00105	02020240	FILL	LBA = '120240	DOUBLE SPACE
0075	00106	50500000	LAA	\$CFLG	
0076	00107	00000023	SAN		ONE CHAR/WORD
0077	00110	02000240	LBA	= '240	
0078	00111	04300147	STB*	BUFF	

0001	00000	00000000	* KEYBOARD OUTPUT HANDLER		
0002	00000	00000000	*		
0003	00000	00000000	REL		
0004	00000	50000000	NAME HKEYIO,KEYO		
0005	00000	00000000	KEYO *** **	ENTRY POINT - ASR KEYBOARD	
0006	00001	02000000	LBA =0		
0007	00002	52100000	STB SBFLG	SET TO NOT BINARY	
0008	00003	00130101	CEU 1,W		
0009	00004	00002000	DATA +2000	KEY MODE	
0010	00005	00000003	CLA		
0011	00006	51500000	STA \$DUM1		
0012	00007	02000001	LBA =1	FLAG AS KEYBOARD OUTPUT	
0013	00010	01100000	LAA KEYO	ADDRESS OF CALLING SEQUENCE	
0014	00011	55100000	CALL T\$OUT		
0015	00012	70400000	END		
		KEYO	00000		
ERRORS	0000	00000			

```

0001 00000 00000000 * ASR PAPER TAPE HANDLER FOR OUTPUT
0002 00000 00000000 *
0003 00000 00000000 REL
0004 00000 50000005 NAME HTAP0,HTP0
0005 00000 50000000 NAME BTAP0,BTP0
0006 00000 00000000 BTP0 *** ** ENTRY POINT - ASR BINARY
0007 00001 01100000 LAA *-1
0008 00002 03100005 STA HTP0
0009 00003 02077776 LBA =-2 SET BFLG FOR BINARY
0010 00004 11100007 BRU +=3
0011 00005 00000000 HTP0 *** ** ENTRY POINT - ASR ASCII
0012 00006 02000000 LBA =0
0013 00007 52100000 STB $BFLG
0014 00010 00130101 CEU 1,W
0015 00011 00004000 DATA *4000 READER MODE
0016 00012 02000003 LBA =3 FLAG AS ASR PAPER TAPE OUTPUT
0017 00013 52100000 STB $DUM1
0018 00014 01100005 LAA HTP0 ADDRESS OF CALLING SEQUENCE
0019 00015 55100000 CALL TSOUT
0020 00016 70400000 END

      BTP0 00000
      HTP0 00005
ERRORS 0000 00000

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```

0001 00000 00000000 * HSP TAPE OUTPUT HANDLER
0002 00000 00000000 *
0003 00000 00000000 REL
0004 00000 50000005 NAME HHSPR0,HSP0
0005 00000 50000000 NAME BHSPR0,BHP0
0006 00000 00000000 BHP0 *** ** ENTRY POINT - HSP BINARY
0007 00001 01100000 LAA *-1
0008 00002 03100005 STA HSP0
0009 00003 02077776 LBA =-2 SET BFLG FOR BINARY
0010 00004 11100007 BRU **+3
0011 00005 00000000 HSP0 *** ** ENTRY POINT - HSP ASCII
0012 00006 02000000 LRA =0
0013 00007 52100000 STB $BFLG
0014 00010 00130102 CEU 2,W
0015 00011 00004000 DATA '4000 PUNCH POWER ON
0016 00012 02000002 LBA =2 FLAG AS HSP TAPE OUTPUT
0017 00013 52100000 STB $DUM1
0018 00014 01100005 LAA HSP0 ADDRESS OF CALLING SEQUENCE
0019 00015 55100000 CALL T$OUT
0020 00016 70400000 END
      BHP0 00000
      HSP0 00005
ERRORS 0000 00000

```

0001 00000 00000000 * T\$OUT - KEYBOARD AND PAPER TAPE OUTPUT ROUTINE

0002 00000 00000000 *

0003 00000 00000000

REL

0004 00000 50000000

NAME T\$OUT,T\$UIT

0005 00000 00000000

T\$UT *** **

0006 00001 03100000

STA T\$UT

0007 00002 01500177

LAA BUFF,1

SET UP AOP'S

0008 00003 03100110

STA \$UT2

0009 00004 03100120

STA CF+1

0010 00005 03100122

STA CF+3

0011 00006 01300000

LAA* T\$UT

0012 00007 03100177

STA BUFF

STORE BUFFER ADDRESS

0013 00010 01100000

LAA T\$UT

0014 00011 55100000

CALL UNSPAK

UNPACK DATA WORD AND SET FLAGS

0015 00012 03100000

STA T\$UT

0016 00013 50500000

LAA \$DUM1

IS IT KEYBOARD OUTPUT

0017 00014 00000022

SAZ

0018 00015 11100070

BRU INPT

NO

0019 00016 01077667

LAA =-73

YES

0020 00017 56500000

CMA \$NGWC

BUFFER LARGER THAN 73

0021 00020 00000033

NOP

0022 00021 11100023

BRU **2

NO

0023 00022 51500000

STA \$NGWC

RESET TO -73

0024 00023 50500000

LAA \$CFLG

0025 00024 00000024

SAP

ONE CHAR/WORD

0026 00025 11100032

BRU NEGT

NO

0027 00026 01300177

LAA* BUFF

YES

0028 00027 14100177

IMS BUFF

0029 00030 00001016

LSL 8

0030 00031 11100033

BRU **2

0031 00032 01300177

NEGT LAA* BUFF

0032 00033 00001015

RSL 8

GET FIRST CHARACTER

0033 00034 15000261

CMA =:261

CHECK FOR PAGE EJECT

0034 00035 11100037

BRU **2

0035 00036 11100051

BRU PAGE

0036 00037 15000253

CMA =:253

CHECK FOR +

0037 00040 11100042

BRU **2

0038 00041 11100046

BRU N\$LF

0039 00042 15000260

CMA =:260

CHECK FOR DOUBLE SPACE

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0040	00043	11100057	BRU	CRLF	
0041	00044	11100055	BRU	TWCL	
0042	00045	11100057	BRU	CRLF	ASSUME FIRST CHAR BLANK
0043	00046	00170501	NBLF MØP	1,W	
0044	00047	00106400	DATA	'106400	
0045	00050	11100063	BRU	CRLF+4	
0046	00051	00170501	PAGE MØP	1,W	PAGE EJECT
0047	00052	00105000	DATA	'105000	LINE FEED
0048	00053	00170501	MØP	1,W	
0049	00054	00105000	DATA	'105000	LINE FEED
0050	00055	00170501	TWCL MØP	1,W	
0051	00056	00105000	DATA	'105000	LINE FEED
0052	00057	00170501	CRLF MØP	1,W	
0053	00060	00106400	DATA	'106400	CARRIAGE RETURN
0054	00061	00170501	MØP	1,W	
0055	00062	00105000	DATA	'105000	LINE FEED
0056	00063	01077777	LAA	=-1	
0057	00064	51500000	STA	%CHAR	RESET CHAR/WORD COUNTER
0058	00065	56100000	IMS	%NGWC	INCREMENT CHAR COUNT
0059	00066	11100070	BRU	*+2	
0060	00067	11300000	BRU*	TØUT	RETURN
0061	00070	01300177	INPT LAA*	BUFF	LOAD ONE WORD OF BUFFER
0062	00071	56100000	IMS	%CHAR	
0063	00072	11100103	BRU	SECD	FIRST OF 2 CHAR/WORD
0064	00073	02077776	LBA	=-2	
0065	00074	50500000	LAA	%CFLG	
0066	00075	00000023	SAN		
0067	00076	02077777	LBA	=-1	
0068	00077	52100000	STB	%CHAR	RESET CHAR/WORD COUNTER
0069	00100	01300177	LAA*	BUFF	
0070	00101	14100177	IMS	BUFF	INCREMENT BUFFER ADDRESS
0071	00102	00001016	LSL	8	
0072	00103	00001015	SECD RSL	8	PROCESS FIRST OF TWO CHARACTERS
0073	00104	15000240	CMA	=1240	IS TI A BLANK
0074	00105	11100107	BRU	*+2	NØ
0075	00106	11100132	BRU	CHEK	CHECK REST OF BUFFER
0076	00107	00001016	LSL	8	
0077	00110	00170100	ØUT2 MØP	0,W	
0078	00111	56100000	IMS	%NGWC	INCREMENT CHAR COUNT

0079	00112	11100070	BRU	INPT	GO GET NEXT CHAR
0080	00113	50500000	LAA	\$DUM1	
0081	00114	00000022	SAZ		IS IT KEYBOARD OUTPUT
0082	00115	11100117	BRU	CF	NO
0083	00116	11300000	BRU*	TOUT	RETURN
0084	00117	01100060	CF	LAA	CRLE+1
0085	00120	00170100	AOP	0,W	CARRIAGE RETURN
0086	00121	01100062	LAA	CRLE+3	
0087	00122	00170100	AOP	0,W	LINE FEED
0088	00123	50500000	LAA	\$DUM1	
0089	00124	06000003	SMA	=3	
0090	00125	00000023	SAN		IS IT HSP OUTPUT
0091	00126	11300000	BRU*	TOUT	NO, RETURN
0092	00127	00130102	CEU	2,W	YES
0093	00130	00002000	DATA	'2000	PUNCH POWER OFF
0094	00131	11300000	BRU*	TOUT	RETURN
0095	00132	50500000	CHEK	LAA	\$BFLG
0096	00133	00000024	SAP		IS IT BINARY OUTPUT
0097	00134	11100174	BRU	SET	YES
0098	00135	01100177	LAA	BUFF	NO
0099	00136	03100176	STA	BUFA	
0100	00137	50500000	LAA	\$NGWC	
0101	00140	05000001	AMA	=1	
0102	00141	51500000	STA	\$I0FG	
0103	00142	50500000	LAA	\$CFLG	TWO CHAR/WORD
0104	00143	00000023	SAN		YES
0105	00144	11100161	BRU	RIGT	CHECK RIGHT CHAR ONLY
0106	00145	01300176	DOUB	LAA*	BUFA
0107	00146	15020240	CMA	=120240	DOUBLE BLANK
0108	00147	11100174	BRU	SET	NON-BLANK, STOP LOOKING
0109	00150	11100152	BRU	**2	
0110	00151	11100174	BRU	SET	
0111	00152	14100176	IMS	BUFA	INCREMENT BUFFER ADDRESS
0112	00153	56100000	IMS	\$I0FG	
0113	00154	11100156	BRU	**2	
0114	00155	11100113	BRU	OUT2+3	
0115	00156	56100000	IMS	\$I0FG	
0116	00157	11100145	BRU	DOUB	GO CHECK NEXT TWO CHARS
0117	00160	11100113	BRU	OUT2+3	

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0118	00161	01300176	RIGT	LAA*	BUFA	
0119	00162	00001016		LSL	8	
0120	00163	00001015		RSL	8	
0121	00164	15000240		CMA	=*240	
0122	00165	11100174	BRU	SET		NON-BLANK, STOP LOOKING
0123	00156	11100170	BRU	**2		
0124	00167	11100174	BRU	SET		
0125	00170	14100176	IMS	BUFA		INCREMENT BUFFER ADDRESS
0126	00171	56100000	IMS	\$I0FG		
0127	00172	11100161	BRU	RIGT		GO CHECK NEXT CHAR
0128	00173	11100113	BRU	OUT2+3		
0129	00174	01020000	SET	LAA	=*120000	RESTORE BLANK
0130	00175	11100110	BRU	OUT2		
0131	00176	00000001	BUFA	BSS	1	
0132	00177	00000001	BUFF	BSS	1	
0133	00200	00170101	AOP	1,W		KEYBOARD OUTPUT
0134	00201	00170102	AOP	2,W		HSP TAPE OUTPUT
0135	00202	00170101	AOP	1,W		ASP PAPER TAPE OUTPUT
0136	00203	70400000	END			

TOUT 00000

NEGT 00032

NOLF 00046

PAGE 00051

TWCL 00055

CRLF 00057

INPT 00070

SECD 00103

OUT2 00110

CF 00117

CHEK 00132

D0UB 00145

RIGT 00161

SET 00174

BUFA 00176

BUFF 00177

ERRORS 0000 00000