



```

BBBBBBBBB      AAAAAA      SSSSSSSS      CCCCCCCC      AAAAAA      NN      NN      TTTTTTTTTT      YY      YY      PPPPPPPP
BBBBBBBBB      AAAAAA      SSSSSSSS      CCCCCCCC      AAAAAA      NN      NN      TTTTTTTTTT      YY      YY      PPPPPPPP
BB      BB      AA      AA      SS      CC      AA      AA      NN      NN      TT      YY      YY      PP      PP
BB      BB      AA      AA      SS      CC      AA      AA      NN      NN      TT      YY      YY      PP      PP
BB      BB      AA      AA      SS      CC      AA      AA      NN      NN      TT      YY      YY      PP      PP
BBBBBBBBB      AA      AA      SSSSSS      CC      AA      AA      NN      NN      TT      YY      YY      PPPPPPPP
BBBBBBBBB      AA      AA      SSSSSS      CC      AA      AA      NN      NN      TT      YY      YY      PPPPPPPP
BB      BB      AAAAAAAAAA      SS      CC      AAAAAAAAAA      NN      NN      TT      YY      YY      PP
BB      BB      AAAAAAAAAA      SS      CC      AAAAAAAAAA      NN      NN      TT      YY      YY      PP
BB      BB      AA      AA      SS      CC      AA      AA      NN      NN      TT      YY      YY      PP
BB      BB      AA      AA      SS      CC      AA      AA      NN      NN      TT      YY      YY      PP
BBBBBBBBB      AA      AA      SSSSSSSS      CCCCCCCC      AA      AA      NN      NN      TT      YY      YY      PP
BBBBBBBBB      AA      AA      SSSSSSSS      CCCCCCCC      AA      AA      NN      NN      TT      YY      YY      PP

```

```

LL      IIIIII      SSSSSSSS
LL      IIIIII      SSSSSSSS
LL      II      SS
LL      II      SS
LL      II      SS
LL      II      SS
LL      II      SSSSSS
LL      II      SSSSSS
LL      II      SS
LL      II      SS
LL      II      SS
LL      II      SS
LLLLLLLLLL      IIIIII      SSSSSSSS
LLLLLLLLLL      IIIIII      SSSSSSSS

```

```

1 0001 0 MODULE BASSCANTYPAHEAD (
2 0002 0 IDENT = '1-005'
3 0003 0 ) =
4 0004 1 BEGIN
5 0005 1
6 0006 1 *****
7 0007 1 *
8 0008 1 * COPYRIGHT (c) 1978, 1980, 1982, 1984 BY
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25 0025 1 *
26 0026 1 *
27 0027 1 *****
28 0028 1
29 0029 1
30 0030 1 ++
31 0031 1 FACILITY: BASIC-PLUS-2 Miscellaneous I/O
32 0032 1
33 0033 1 ABSTRACT:
34 0034 1
35 0035 1 This module contains the BASIC CANTYPA function,
36 0036 1 which cancels type-ahead.
37 0037 1
38 0038 1 ENVIRONMENT: VAX-11 User Mode
39 0039 1
40 0040 1 AUTHOR: John Sauter, CREATION DATE: 01-MAY-1979
41 0041 1
42 0042 1 MODIFIED BY:
43 0043 1
44 0044 1 1-001 - Original.
45 0045 1 1-002 - Set up ISB$A USER_FP. JBS 25-JUL-1979
46 0046 1 1-003 - Cancel typeahead immediately, instead of waiting till
47 0047 1 the next read. PLL 28-Jul-81
48 0048 1 1-004 - Use LIB$GET_EF to allocate an event flag, instead of using the
49 0049 1 default efn_zero. PLL 30-Nov-81
50 0050 1 1-005 - Declare LIB$STOP to be external. RNG 05-Jan-82
51 0051 1 --
52 0052 1
53 0053 1 !<BLF/PAGE>

```

! File: BASCANTYP.B32 EDIT:RNG1005

```

55 0054 1  | SWITCHES:
56 0055 1  |
57 0056 1  |
58 0057 1  |
59 0058 1  | SWITCHES ADDRESSING_MODE (EXTERNAL = GENERAL, NONEXTERNAL = WORD_RELATIVE);
60 0059 1  |
61 0060 1  |
62 0061 1  | LINKAGES:
63 0062 1  |
64 0063 1  |
65 0064 1  | REQUIRE 'RTLIN:OTSLNK';           ! Define linkages
66 0493 1  |
67 0494 1  |
68 0495 1  | TABLE OF CONTENTS:
69 0496 1  |
70 0497 1  |
71 0498 1  | FORWARD ROUTINE
72 0499 1  |     BASSCANTYPAHEAD;           ! Cancel type ahead
73 0500 1  |
74 0501 1  |
75 0502 1  | INCLUDE FILES:
76 0503 1  |
77 0504 1  |
78 0505 1  | REQUIRE 'RTLML:OTSLUB';         ! Get LUB definitions
79 0645 1  |
80 0646 1  | REQUIRE 'RTLML:OTSISB';         ! Get ISB definitions
81 0814 1  |
82 0815 1  | REQUIRE 'RTLIN:RTLPSECT';       ! Macros for defining psects
83 0910 1  |
84 0911 1  | LIBRARY 'RTLSTARLE';           ! System symbols
85 0912 1  |
86 0913 1  |
87 0914 1  | MACROS:
88 0915 1  |
89 0916 1  |     NONE
90 0917 1  |
91 0918 1  | EQUATED SYMBOLS:
92 0919 1  |
93 0920 1  |     NONE
94 0921 1  |
95 0922 1  | PSECTS:
96 0923 1  |
97 0924 1  | DECLARE_PSECTS (BAS);          ! Declare psects for BASS$ facility
98 0925 1  |
99 0926 1  | OWN STORAGE:
100 0927 1  |
101 0928 1  |     NONE
102 0929 1  |
103 0930 1  | EXTERNAL REFERENCES:
104 0931 1  |
105 0932 1  |
106 0933 1  | EXTERNAL ROUTINE
107 0934 1  |     LIB$GET_EF,                 ! allocate an event flag
108 0935 1  |     LIB$FREE_EF,                ! deallocate an event flag
109 0936 1  |     LIB$STOP,                   ! stop process and return status
110 0937 1  |     BASS$OPEN_ZERO : NOVALUE,   ! Open channel zero
111 0938 1  |     BASS$CB_PUSH : JSB_CB_PUSH NOVALUE, ! Load register CCB

```

```
: 112      0939 1      BAS$$CB_POP : JSB_CB_POP NOVALUE,      ! Done with register CCB
: 113      0940 1      BAS$$STOP_IO : NOVALUE;          ! Signal fatal I/O error
: 114      0941 1
: 115      0942 1      !+
: 116      0943 1      ! The following are the error codes used in this module.
: 117      0944 1      !-
: 118      0945 1
: 119      0946 1      EXTERNAL LITERAL
: 120      0947 1      BAS$$K_IO_CHANOT : UNSIGNED (8);      ! Channel not open.
: 121      0948 1
```

```

123 0949 1 GLOBAL ROUTINE BASSCANTYPAHEAD (           ! Cancel type ahead
124 0950 1     CHAN                               ! Channel on which to cancel type ahead
125 0951 1     ) =
126 0952 1
127 0953 1 |++
128 0954 1 | FUNCTIONAL DESCRIPTION:
129 0955 1 |
130 0956 1 |     Suppress type ahead on the terminal open on the specified
131 0957 1 |     channel.
132 0958 1 |
133 0959 1 | FORMAL PARAMETERS:
134 0960 1 |
135 0961 1 |     CHAN.r.l.v     The channel whose terminal to suppress type
136 0962 1 |                     ahead on.
137 0963 1 |
138 0964 1 | IMPLICIT INPUTS:
139 0965 1 |
140 0966 1 |     NONE
141 0967 1 |
142 0968 1 | IMPLICIT OUTPUTS:
143 0969 1 |
144 0970 1 |     LUB$V_PTA     Suppress type-ahead.
145 0971 1 |
146 0972 1 | ROUTINE VALUE:
147 0973 1 | COMPLETION CODES:
148 0974 1 |
149 0975 1 |     SSS_NORMAL
150 0976 1 |
151 0977 1 | SIDE EFFECTS:
152 0978 1 |
153 0979 1 |     Signals if an error is encountered.
154 0980 1 |     BASS$CB_PUSH will signal if the channel number is invalid.
155 0981 1 |     Signals BASSK_IO_CHANOT if the channel is not open.
156 0982 1 |
157 0983 1 | --
158 0984 1 |
159 0985 2     BEGIN
160 0986 2
161 0987 2     BUILTIN
162 0988 2         FP;
163 0989 2
164 0990 2     GLOBAL REGISTER
165 0991 2         CCB = K_CCB_REG : REF BLOCK [, BYTE];
166 0992 2
167 0993 2     LOCAL
168 0994 2         FMP : REF BLOCK [, BYTE],
169 0995 2         EVENT_FLAG,
170 0996 2         STATUS,
171 0997 2         DEVNAM_DESC : BLOCK [8, BYTE];
172 0998 2
173 0999 2     FMP = .FP;
174 1000 2 |++
175 1001 2 | Get the CCB for the channel.
176 1002 2 |
177 1003 2 |
178 1004 3     IF (.CHAN EQL 0)
179 1005 2     THEN

```

```

180      1006      BEGIN
181      1007      +
182      1008      - The user is referencing his controlling terminal.
183      1009      +
184      1010      -   BASS$CB_PUSH (LUB$K_LUN_INPU, LUB$K_ILUN_MIN);
185      1011      +
186      1012      - If the controlling terminal is not yet open, open it.
187      1013      +
188      1014      -   IF ( NOT .CCB [LUB$V_OPENED]) THEN BASS$OPEN_ZERO (.FMP [SF$L_SAVE_FP]);
189      1015      +
190      1016      -   END
191      1017      ELSE
192      1018      BEGIN
193      1019      +
194      1020      - This is an ordinary channel.
195      1021      +
196      1022      -   BASS$CB_PUSH (.CHAN, LUB$K_LUN_MIN);
197      1023      +
198      1024      -   END;
199      1025      +
200      1026      -   CCB [ISB$A_USER_FP] = .FMP [SF$L_SAVE_FP];
201      1027      +
202      1028      - If the channel is not now open, give an error signal.
203      1029      +
204      1030      -   IF ( NOT .CCB [LUB$V_OPENED]) THEN BASS$STOP_IO (BASS$K_IO_CHANOT);
205      1031      +
206      1032      - This code formerly set the PTA bit and then let RMS do the actual
207      1033      +   purge at the record level. This method, however, might purge things
208      1034      -   typed after the cancel typeahead was issued. So cancel typeahead now
209      1035      +   by doing a read virtual block of 0 characters.
210      1036      -
211      1037      +
212      1038      -
213      1039      +
214      1040      - $ASSIGN will translate SYSS$INPUT to a device name.
215      1041      +
216      1042      -
217      1043      +
218      1044      -   DEVNAM_DESC [DSC$W_LENGTH] = %CHARCOUNT ('SYSS$INPUT');
219      1045      +   DEVNAM_DESC [DSC$B_DTYPE] = DSC$K_DTYPE_Z;
220      1046      -   DEVNAM_DESC [DSC$B_CLASS] = DSC$K_CLASS_S;
221      1047      +   DEVNAM_DESC [DSC$A_POINTER] = UPLIT('SYSS$INPUT');
222      1048      -
223      1049      +   STATUS = $ASSIGN (DEVNAM = DEVNAM_DESC, CHAN = CHAN);
224      1050      -   IF (NOT .STATUS) THEN LIB$STOP (.STATUS);
225      1051      +
226      1052      -   STATUS = LIB$GET_EF (EVENT_FLAG);
227      1053      +   IF (NOT .STATUS) THEN LIB$STOP (.STATUS);
228      1054      -
229      1055      +   STATUS = $QIOW (EFN = .EVENT_FLAG, CHAN = .CHAN,
230      1056      -   P   FUNC = IOS_READVBLK+IOSM_PURGE,
231      1057      +   P   P1 = .CCB [LUB$A_BUF_BEG], P2 = 0);
232      1058      -   IF (NOT .STATUS) THEN LIB$STOP (.STATUS);
233      1059      +
234      1060      -   STATUS = LIB$FREE_EF (EVENT_FLAG);
235      1061      +   IF (NOT .STATUS) THEN LIB$STOP (.STATUS);
236      1062      -

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: 237      1063  2      STATUS = $DASSGN (CHAN = .CHAN);
: 238      1064  2      IF (NOT .STATUS) THEN LIB$STOP (.STATUS);
: 239      1065  2      |
: 240      1066  2      | + We are done with register CCB.
: 241      1067  2      | -
: 242      1068  2      |
: 243      1069  2      |
: 244      1070  1      BAS$$CB_POP ();
                        RETURN TSS$_NORMAL);
                        END;

```

! end of BASSCANTYPAHEAD

				.TITLE	BASSCANTYPAHEAD		
				.IDENT	\1-005\		
				.PSECT	_BASSCODE,NOWRT, SHR, PIC,2		
00 00 00 54 55 50 4E 49 24 53 59 53 00000 P.AAA:					.ASCII	\SYSSINPUT\<0><0><0>	:
				.EXTRN	LIB\$GET_EF, LIB\$FREE_EF		
				.EXTRN	LIB\$STOP, BASS\$OPEN_ZERO		
				.EXTRN	BAS\$\$CB_PUSH, BAS\$\$CB_POP		
				.EXTRN	BAS\$\$STOP_IO, BAS\$K_IO_CHANOT		
				.EXTRN	SYSS\$ASSIGN, SYSS\$QIOQ		
				.EXTRN	SYSS\$DASSGN		
				.ENTRY	BASSCANTYPAHEAD, Save R2,R3,R4,R5,R11	:	0949
55 00000000G	00	083C	00000	MOVAB	BAS\$\$CB_PUSH, R5	:	
54 00000000G	00	9E	00002	MOVAB	LIB\$STOP, R4	:	
5E		0C	C2 00010	SUBL2	#12, SP	:	
53		5D	D0 00013	MOVL	FP, FMP	:	0999
	04	AC	D5 00016	TSTL	CHAN	:	1004
		18	12 00019	BNEQ	1\$	:	
50		08	CE 0001B	MNEGL	#8, R0	:	1010
52		07	CE 0001E	MNEGL	#7, R2	:	
		65	16 00021	JSB	BAS\$\$CB_PUSH	:	
14	FC	AB	E8 00023	BLBS	-4(CCB), 2\$	:	1015
	OC	A3	DD 00027	PUSHL	12(FMP)	:	
00000000G	00	01	FB 0002A	CALLS	#1, BASS\$OPEN_ZERO	:	
		08	11 00031	BRB	2\$	:	1004
		50	D4 00033	CLRL	R0	:	1023
	04	AC	D0 00035	MOVL	CHAN, R2	:	
		65	16 00039	JSB	BAS\$\$CB_PUSH	:	
FF4C	CB	OC	A3 D0 0003B	MOVL	12(FMP), -180(CCB)	:	1026
	OB	FC	AB E8 00041	BLBS	-4(CCB), 3\$	:	1031
	7E	00G	8F 9A 00045	MOVZBL	#BAS\$K_IO_CHANOT, -(SP)	:	
00000000G	00	01	FB 00049	CALLS	#1, BASS\$STOP_IO	:	
04	AE	01000009	8F D0 00050	MOVL	#16777225, DEVNAM_DESC	:	1044
08	AE	99	AF 9E 00058	MOVAB	P.AAA, DEVNAM_DESC+4	:	1047
		7E	7C 0005D	CLRQ	-(SP)	:	1049
		04	AC 9F 0005F	PUSHAB	CHAN	:	
		10	AE 9F 00062	PUSHAB	DEVNAM_DESC	:	
00000000G	00	04	FB 00065	CALLS	#4, SYSS\$ASSIGN	:	
	52	50	D0 0006C	MOVL	R0, STATUS	:	
	05	52	E8 0006F	BLBS	STATUS, 4\$	:	1050
		52	DD 00072	PUSHL	STATUS	:	
	64	01	FB 00074	CALLS	#1, LIB\$STOP	:	
		5E	DD 00077	PUSHL	SP	:	1052
00000000G	00	01	FB 00079	CALLS	#1, LIB\$GET_EF	:	

	52		50	D0	00080	MOVL	R0, STATUS		
	05		52	E8	00083	BLBS	STATUS, 5\$		1053
			52	DD	00086	PUSHL	STATUS		
	64		01	FB	00088	CALLS	#1, LIB\$STOP		
			7E	7C	0008B	5\$: CLRQ	-(SP)		1057
			7E	7C	0008D	CLRQ	-(SP)		
			7E	D4	0008F	CLRL	-(SP)		
		BC	AB	DD	00091	PUSHL	-68(CCB)		
			7E	7C	00094	CLRQ	-(SP)		
			7E	D4	00096	CLRL	-(SP)		
	7E	0831	8F	3C	00098	MOVZWL	#2097, -(SP)		
		04	AC	DD	0009D	PUSHL	CHAN		
		2C	AE	DD	000A0	PUSHL	EVENT FLAG		
00000000G	00		0C	FB	000A3	CALLS	#12, SYSSQIOW		
	52		50	D0	000AA	MOVL	R0, STATUS		
	05		52	E8	000AD	BLBS	STATUS, 6\$		1058
			52	DD	000B0	PUSHL	STATUS		
	64		01	FB	000B2	CALLS	#1, LIB\$STOP		
			5E	DD	000B5	6\$: PUSHL	SP		1060
00000000G	00		01	FB	000B7	CALLS	#1, LIB\$FREE_EF		
	52		50	D0	000BE	MOVL	R0, STATUS		
	05		52	E8	000C1	BLBS	STATUS, 7\$		1061
			52	DD	000C4	PUSHL	STATUS		
	64		01	FB	000C6	CALLS	#1, LIB\$STOP		
		04	AC	DD	000C9	7\$: PUSHL	CHAN		1063
00000000G	00		01	FB	000CC	CALLS	#1, SYSSDASSGN		
	52		50	D0	000D3	MOVL	R0, STATUS		
	05		52	E8	000D6	BLBS	STATUS, 8\$		1064
			52	DD	000D9	PUSHL	STATUS		
	64		01	FB	000DB	CALLS	#1, LIB\$STOP		
		00000000G	00	16	000DE	8\$: JSB	BASS\$CB_POP		1068
	50		01	D0	000E4	MOVL	#1, R0		1069
			04	000E7		RET			1070

; Routine Size: 232 bytes, Routine Base: \_BAS\$CODE + 000C

```

: 245      1071  1
: 246      1072  1 END
: 247      1073  1
: 248      1074  0 ELUDOM

```

! end of module BASSCANTYPAHEAD

PSECT SUMMARY

Name	Bytes	Attributes
_BAS\$CODE	244	NOVEC, NOWRT, RD, EXE, SHR, LCL, REL, CON, PIC, ALIGN(2)

Library Statistics

File	----- Total	Symbols Loaded	----- Percent	Pages Mapped	Processing Time
:_\$255\$DUA28:[SYSLIB]STARLET.L32;1	9776	15	0	581	00:01.2

COMMAND QUALIFIERS

BLISS/CHECK=(FIELD,INITIAL,OPTIMIZE)/NOTRACE/LIS=LIS\$:BASCANTYP/OBJ=OBJ\$:BASCANTYP MSRC\$:BASCANTYP/UPDATE=(ENH\$:BASCANTYP)

: Size: 232 code + 12 data bytes  
: Run Time: 00:10.7  
: Elapsed Time: 00:25.1  
: Lines/CPU Min: 6005  
: Lexemes/CPU-Min: 40277  
: Memory Used: 157 pages  
: Compilation Complete

