


```

LL      IIIIII  BBBB8888  LL      PPPPPPPP  LL      IIIIII  NN      NN  EEEEEEEEE
LL      IIIIII  BBBB8888  LL      PPPPPPPP  LL      IIIIII  NN      NN  EEEEEEEEE
LL      II      BB      88  LL      PP      PP  LL      II      NN      NN  EE
LL      II      BB      88  LL      PP      PP  LL      II      NN      NN  EE
LL      II      BB      88  LL      PP      PP  LL      II      NNNN   NN  EE
LL      II      BBBB8888  LL      PPPPPPPP  LL      II      NNNN   NN  EE
LL      II      BBBB8888  LL      PPPPPPPP  LL      II      NN  NN  NN  EEEEEEE
LL      II      BB      88  LL      PP      PP  LL      II      NN  NN  NN  EEEEEEE
LL      II      BB      88  LL      PP      PP  LL      II      NN      NN  EE
LL      II      BB      88  LL      PP      PP  LL      II      NN      NN  EE
LL      II      BB      88  LL      PP      PP  LL      II      NN      NN  EE
LLLLLLLLLLLL  IIIIII  BBBB8888  LLLLLLLLLL  PP      LLLLLLLLLL  IIIIII  NN      NN  EEEEEEEEE
LLLLLLLLLLLL  IIIIII  BBBB8888  LLLLLLLLLL  PP      LLLLLLLLLL  IIIIII  NN      NN  EEEEEEEEE

```

```

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
LLLLLLLLLLLL  IIIIII  SSSSSSSS
LLLLLLLLLLLL  IIIIII  SSSSSSSS

```

```

1 0001 0 MODULE LIB$LP_LINES (%TITLE'Fetch number of lines per page'
2 0002 0 IDENT = '1-003' ! File: LIBLPLINE.B32 Edit: SBL1003
3 0003 0 ) =
4 0004 1 BEGIN
5 0005 1
6 0006 1 *****
7 0007 1 *
8 0008 1 * COPYRIGHT (c) 1978, 1980, 1982, 1984 BY *
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25 0025 1 *
26 0026 1 *
27 0027 1 *****
28 0028 1
29 0029 1
30 0030 1 ++
31 0031 1 FACILITY: General Purpose Library
32 0032 1
33 0033 1 ABSTRACT:
34 0034 1
35 0035 1 Contains a routine to return the system-wide default Line Printer length,
36 0036 1 as determined by the logical name SYS$LP_LINES.
37 0037 1
38 0038 1 ENVIRONMENT: User mode - AST reentrant
39 0039 1
40 0040 1 AUTHOR: Richard Grove and Steven Lionel, CREATION DATE: 10-Sep-1979
41 0041 1
42 0042 1 EDIT HISTORY:
43 0043 1
44 0044 1 1-001 - Original.
45 0045 1 1-002 - Improve comments and remove OTSMAC. JBS 31-OCT-1979
46 0046 1 1-003 - Use LIBPROLOG. Change high limit from 99 to 255. SBL 18-Jan-1983
47 0047 1 !<BLF/PAGE>

```

LIB\$LP_LINES
1-003

Fetch number of lines per page
Declarations

L 7
16-Sep-1984 01:07:12
14-Sep-1984 12:39:08

VAX-11 Bliss-32 V4.0-742
[LIBRTL.SRC]LIBLPLINE.B32;1

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```

: 49      0048 1 %SBTTL'Declarations'
: 50      0049 1
: 51      0050 1 : PROLOGUE FILE:
: 52      0051 1 :
: 53      0052 1
: 54      0053 1 REQUIRE 'RTLIN:LIBPROLOG':           ! LIB$ declarations
: 55      0124 1
: 56      0125 1 :
: 57      0126 1 : TABLE OF CONTENTS:
: 58      0127 1 :
: 59      0128 1
: 60      0129 1 FORWARD ROUTINE
: 61      0130 1     LIB$LP_LINES:                   ! Get default Line Printer length
: 62      0131 1
: 63      0132 1 :
: 64      0133 1 : MACROS:
: 65      0134 1 :
: 66      0135 1 :     NONE
: 67      0136 1 :
: 68      0137 1 : EQUATED SYMBOLS:
: 69      0138 1 :
: 70      0139 1 :     NONE
: 71      0140 1 :
: 72      0141 1 : OWN STORAGE:
: 73      0142 1 :
: 74      0143 1 :     NONE
: 75      0144 1 :
: 76      0145 1 : EXTERNAL REFERENCES:
: 77      0146 1 :
: 78      0147 1 :
: 79      0148 1 EXTERNAL ROUTINE
: 80      0149 1     OTSSCVT_TI_L;                   ! Convert ASCII text string to longword integer
: 81      0150 1

```

LIB

Sym
ALI
ALI
FOU
HIC
LIB
LIB
LIB
LIB
LOW
LUP
LUP
OK
RES
SC

PSI

.

-L

-L

Ph

In

Com

Pat

Sym

Pat

Sym

Pat

Th

30

Th

28

0

Ma

-S

0

```
83 0151 1 %SBTTL'LIB$LP_LINES - Fetch number of lines per page'
84 0152 1 GLOBAL ROUTINE LIB$LP_LINES =
85 0153 1
86 0154 1 |++
87 0155 1 | FUNCTIONAL DESCRIPTION:
88 0156 1 |
89 0157 1 |     LIB$LP_LINES computes the default number of lines on a
90 0158 1 |     line-printer page. This procedure (or an equivalent computation)
91 0159 1 |     should be used by all native-mode VAX/VMS utilities that produce
92 0160 1 |     "listing" files and do pagination.
93 0161 1 |
94 0162 1 |     U.S. standard paper stock permits 66 lines of printing on a
95 0163 1 |     physical page. From this value, the utility should deduct:
96 0164 1 |
97 0165 1 |     1. 3 lines for top margin
98 0166 1 |     2. 3 lines for bottom margin
99 0167 1 |     3. 3 lines for listing heading information, consisting of:
100 0168 1 |
101 0169 1 |         1. Language-processor identification line
102 0170 1 |         2. Source-program identification line
103 0171 1 |         3. One blank line
104 0172 1 |
105 0173 1 |     The algorithm used by LIB$LP_LINES is:
106 0174 1 |
107 0175 1 |         1. Translate the logical name SYS$LP_LINES
108 0176 1 |         2. Convert the ASCII value obtained to a binary integer
109 0177 1 |         3. Verify that the resulting value is in the range [30:255].
110 0178 1 |         4. If any of the steps above fail, return the default U.S.
111 0179 1 |            paper size of 66 lines.
112 0180 1 |
113 0181 1 |     CALLING SEQUENCE:
114 0182 1 |
115 0183 1 |         LP_length.wl.v = LIB$LP_LINES ( )
116 0184 1 |
117 0185 1 |     FORMAL PARAMETERS:
118 0186 1 |
119 0187 1 |         NONE
120 0188 1 |
121 0189 1 |     IMPLICIT INPUTS:
122 0190 1 |
123 0191 1 |         System-wide (or user-defined) logical name SYS$LP_LINES
124 0192 1 |
125 0193 1 |     IMPLICIT OUTPUTS:
126 0194 1 |
127 0195 1 |         NONE
128 0196 1 |
129 0197 1 |     ROUTINE VALUE:
130 0198 1 |
131 0199 1 |         Default number of lines on a Physical Line Printer page.
132 0200 1 |
133 0201 1 |
134 0202 1 |
135 0203 1 |
136 0204 1 |
137 0205 1 |
138 0206 1 |
139 0207 1 |
```

```

140 0208 1 | If the logical name translation or conversion to binary
141 0209 1 | fails, a default value of 66 is returned.
142 0210 1 |
143 0211 1 | SIDE EFFECTS:
144 0212 1 |
145 0213 1 | NONE
146 0214 1 |
147 0215 1 | --
148 0216 1 |
149 0217 2 | BEGIN
150 0218 2 |
151 0219 2 | LOCAL
152 0220 2 | LOGDES : BLOCK [8, BYTE], | String descriptor for logical name
153 0221 2 | NUMBER, | Accumulator for integer conversion
154 0222 2 | NUMDES : BLOCK [8, BYTE], | String descriptor for translated string
155 0223 2 | NUMSTR : VECTOR [LNMSC_NAMLENGTH, BYTE]; | Buffer for translated string
156 0224 2 |
157 0225 2 | +
158 0226 2 | Initialize descriptors for logical name and translated string
159 0227 2 | -
160 0228 2 | LOGDES [DSC$B_CLASS] = DSC$K_CLASS_S;
161 0229 2 | LOGDES [DSC$B_DTYPE] = DSC$K_DTYPE_T;
162 0230 2 | LOGDES [DSC$W_LENGTH] = %CHARCOUNT('SYS$LP_LINES');
163 0231 2 | LOGDES [DSC$A_POINTER] = UPLIT BYTE('SYS$LP_LINES');
164 0232 2 | NUMDES [DSC$B_CLASS] = DSC$K_CLASS_S;
165 0233 2 | NUMDES [DSC$B_DTYPE] = DSC$K_DTYPE_T;
166 0234 2 | NUMDES [DSC$W_LENGTH] = LNMSC_NAMLENGTH;
167 0235 2 | NUMDES [DSC$A_POINTER] = NUMSTR [0];
168 0236 2 | +
169 0237 2 | Translate and convert the logical name SYS$LP_LINES to determine
170 0238 2 | default number of lines on LP listing page.
171 0239 2 | -
172 0240 2 |
173 0241 3 | IF $TRNLOG (LOGNAM - LOGDES, RSLBUF = NUMDES, RSLLEN = NUMDES [DSC$W_LENGTH])
174 0242 2 | THEN
175 0243 2 |
176 0244 2 | IF OTSS$CVT_TI_L (NUMDES, NUMBER, 4, 1)
177 0245 2 | THEN
178 0246 2 |
179 0247 2 | IF .NUMBER GEQ 30 AND .NUMBER LEQ 255 THEN RETURN .NUMBER;
180 0248 2 |
181 0249 2 | +
182 0250 2 | The default value for U.S. standard paper stock is 66.
183 0251 2 | -
184 0252 2 | RETURN 66;
185 0253 1 | END;

```

! of routine LIB\$LP_LINES

```

.TITLE LIB$LP_LINES Fetch number of lines per page
.IDENT \1-003\
.PSECT _LIB$CODE, NOWRT, SHR, PIC, 2
.ASCII \SYS$LP_LINES\
.EXTRN OTSS$CVT_TI_L, SYS$TRNLOG

```

53 45 4E 49 4C 5F 50 4C 24 53 59 53 0000 P.AAA:

			0000	00000		.ENTRY	LIB\$LP_LINES, Save nothing	:	0152	
	5E	FEEC	CE	9E	00002	MOVAB	-276(SP), SP	:		
F8	AD	010E000C	8F	D0	00007	MOVL	#17694732, LOGDES	:	0230	
FC	AD	E2	AF	9E	0000F	MOVAB	P.AAA, LOGDES+4	:	0231	
FO	AD	010E00FF	8F	D0	00014	MOVL	#17694975, NUMDES	:	0234	
F4	AD	04	AE	9E	0001C	MOVAB	NUMSTR, NUMDES+4	:	0235	
			7E	7C	00021	CLRQ	-(SP)	:	0241	
			7E	D4	00023	CLRL	-(SP)	:		
			FO	AD	9F	00025	PUSHAB	NUMDES	:	
			FO	AD	9F	00028	PUSHAB	NUMDES	:	
			F8	AD	9F	0002B	PUSHAB	LOGDES	:	
00000000G	00		06	FB	0002E	CALLS	#6, SYS\$TRNLOG	:		
	26		50	E9	00035	BLBC	R0, 1\$:		
			01	DD	00038	PUSHL	#1	:	0244	
			04	DD	0003A	PUSHL	#4	:		
			08	AE	9F	0003C	PUSHAB	NUMBER	:	
			FO	AD	9F	0003F	PUSHAB	NUMDES	:	
00000000G	00		04	FB	00042	CALLS	#4, OTS\$CVT_TI_L	:		
	12		50	E9	00049	BLBC	R0, 1\$:		
	1E		6E	D1	0004C	CMPL	NUMBER, #30	:	0247	
			0D	19	0004F	BLSS	1\$:		
000000FF	8F		6E	D1	00051	CMPL	NUMBER, #255	:		
			04	14	00058	BGTR	1\$:		
	50		6E	D0	0005A	MOVL	NUMBER, R0	:		
			04	0005D		RET		:		
	50	42	8F	9A	0005E	MOVZBL	#66, R0	:	0252	
			04	00062		RET		:	0253	

: Routine Size: 99 bytes, Poutine Base: _LIB\$CODE + 000C

```

: 186      0254  1
: 187      0255  1 END
: 188      0256  1
: 189      0257  0 ELUDOM

```

!End of module LIB\$LP_LINES

PSECT SUMMARY

Name	Bytes	Attributes
_LIB\$CODE	111	NOVEC, NOWRT, RD, EXE, SHR, LCL, REL, CON, PIC, ALIGN(2)

Library Statistics

File	Symbols		Pages Mapped	Processing Time
	Total	Loaded		
_\$255\$DUA28:[SYSLIB]STARLET.L32;1	9776	10	581	00:00.8
_\$255\$DUA28:[LIBRTL.OBJ]RTL.LIB.L32;1	36	0	8	00:00.1

LIB\$LP_LINES
1-003

Fetch number of lines per page
LIB\$LP_LINES - Fetch number of lines per page

C 8
16-Sep-1984 01:07:12
14-Sep-1984 12:39:08

VAX-11 Bliss-32 V4.0-742
[LIBRTL.SRC]LIBLPLINE.B32;1

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LII
1-

COMMAND QUALIFIERS

BLISS/CHECK=(FIELD,INITIAL,OPTIMIZE)/NOTRACE/LIS=LISS:LIBLPLINE/OBJ=OBJ\$:LIBLPLINE MSRCS:LIBLPLINE/UPDATE=(ENHS:LIBLPLINE
)

: Size: 99 code + 12 data bytes
: Run Time: 00:03.0
: Elapsed Time: 00:13.5
: Lines/CPU Min: 5122
: Lexemes/CPU-Min: 18877
: Memory Used: 51 pages
: Compilation Complete

