

PPPPPPPPPPPP		AAAAA		SSSSSSSSSSSS	RRRRRRRRRRRR		TTTTTTTTTTTTTT	LLL
PPPPPPPPPPPP		AAAAA		SSSSSSSSSSSS	RRRRRRRRRRRR		TTTTTTTTTTTTTT	LLL
PPPPPPPPPPPP		AAAAA		SSSSSSSSSSSS	RRRRRRRRRRRR		TTTTTTTTTTTTTT	LLL
PPP	PPP	AAA	AAA	SSS	RRR	RRR	TTT	LLL
PPP	PPP	AAA	AAA	SSS	RRR	RRR	TTT	LLL
PPP	PPP	AAA	AAA	SSS	RRR	RRR	TTT	LLL
PPP	PPP	AAA	AAA	SSS	RRR	RRR	TTT	LLL
PPP	PPP	AAA	AAA	SSS	RRR	RRR	TTT	LLL
PPP	PPP	AAA	AAA	SSS	RRR	RRR	TTT	LLL
PPP	PPP	AAA	AAA	SSS	RRR	RRR	TTT	LLL
PPPPPPPPPPPP		AAA	AAA	SSSSSSSSSS	RRRRRRRRRRRR		TTT	LLL
PPPPPPPPPPPP		AAA	AAA	SSSSSSSSSS	RRRRRRRRRRRR		TTT	LLL
PPPPPPPPPPPP		AAA	AAA	SSSSSSSSSS	RRRRRRRRRRRR		TTT	LLL
PPP		AAAAAAAAAAAAAAAA			RRR	RRR	TTT	LLL
PPP		AAAAAAAAAAAAAAAA		SSS	RRR	RRR	TTT	LLL
PPP		AAAAAAAAAAAAAAAA		SSS	RRR	RRR	TTT	LLL
PPP		AAA	AAA	SSS	RRR	RRR	TTT	LLL
PPP		AAA	AAA	SSS	RRR	RRR	TTT	LLL
PPP		AAA	AAA	SSS	RRR	RRR	TTT	LLL
PPP		AAA	AAA	SSS	RRR	RRR	TTT	LLL
PPP		AAA	AAA	SSSSSSSSSSSS	RRR	RRR	TTT	LLLLLLLLLLLLLLLL
PPP		AAA	AAA	SSSSSSSSSSSS	RRR	RRR	TTT	LLLLLLLLLLLLLLLL
PPP		AAA	AAA	SSSSSSSSSSSS	RRR	RRR	TTT	LLLLLLLLLLLLLLLL

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PPPPPPPP      AAAAAA      SSSSSSSS      AAAAAA      BBBB BBBB      SSSSSSSS      LL
PPPPPPPP      AAAAAA      SSSSSSSS      AAAAAA      BBBB BBBB      SSSSSSSS      LL
PP      PP      AA      AA      SS      AA      AA      BB      BB      SS      LL
PP      PP      AA      AA      SS      AA      AA      BB      BB      SS      LL
PP      PP      AA      AA      SS      AA      AA      BB      BB      SS      LL
PP      PP      AA      AA      SS      AA      AA      BB      BB      SS      LL
PPPPPPPP      AA      AA      SSSSSS      AA      AA      BBBB BBBB      SSSSSS      LL
PPPPPPPP      AA      AA      SSSSSS      AA      AA      BBBB BBBB      SSSSSS      LL
PP      AAAAAAAAAA      SS      AAAAAAAAAA      BB      BB      SS      LL
PP      AAAAAAAAAA      SS      AAAAAAAAAA      BB      BB      SS      LL
PP      AA      AA      SS      AA      AA      BB      BB      SS      LL
PP      AA      AA      SS      AA      AA      BB      BB      SS      LL
PP      AA      AA      SSSSSSSS      AA      AA      BBBB BBBB      SSSSSSSS      LLLLLLLLLL
PP      AA      AA      SSSSSSSS      AA      AA      BBBB BBBB      SSSSSSSS      LLLLLLLLLL

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LL      I I I I I      SSSSSSSS
LL      I I I I I      SSSSSSSS
LL      I      SS
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LLLLLLLLLL      I I I I I      SSSSSSSS
LLLLLLLLLL      I I I I I      SSSSSSSS

```

(2) 46  
(3) 75

DECLARATIONS  
PASSABS\_L - Take absolute value unchecked

```
0000 1 .TITLE PASSABS_L - Return absolute value
0000 2 .IDENT /1-001/ ; File: PASABSL.MAR Edit: SBL1001
0000 3
0000 4 :
0000 5 :*****
0000 6 :*
0000 7 :* COPYRIGHT (c) 1978, 1980, 1982, 1984 BY *
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0000 19 :* AND SHOULD NOT BE CONSTRUED AS A COMMITMENT BY DIGITAL EQUIPMENT *
0000 20 :* CORPORATION. *
0000 21 :*
0000 22 :* DIGITAL ASSUMES NO RESPONSIBILITY FOR THE USE OR RELIABILITY OF ITS *
0000 23 :* SOFTWARE ON EQUIPMENT WHICH IS NOT SUPPLIED BY DIGITAL. *
0000 24 :*
0000 25 :*
0000 26 :*****
0000 27 :
0000 28 :
0000 29 :++
0000 30 : FACILITY: Pascal Language Support
0000 31 :
0000 32 : ABSTRACT:
0000 33 :
0000 34 : This module contains PASSABS_L, which returns the absolute value
0000 35 : of a longword without checking for overflow.
0000 36 :
0000 37 : ENVIRONMENT: Runs at any access mode, AST Reentrant
0000 38 :
0000 39 : AUTHOR: Steven B. Lionel, CREATION DATE: 4-Nov-1980
0000 40 :
0000 41 : MODIFIED BY:
0000 42 :
0000 43 : 1-001 - Original. SBL 4-Nov-1980
0000 44 :--
```

```
0000 46      .SBTTL  DECLARATIONS
0000 47      :
0000 48      : LIBRARY MACRO CALLS:
0000 49      :
0000 50      :     NONE
0000 51      :
0000 52      : EXTERNAL DECLARATIONS:
0000 53      :
0000 54      :     .DSABL  GBL           ; Force all external symbols to be declared
0000 55      :     NONE
0000 56      :
0000 57      : MACROS:
0000 58      :
0000 59      :     NONE
0000 60      :
0000 61      : EQUATED SYMBOLS:
0000 62      :
0000 63      :     NONE
0000 64      :
0000 65      : OWN STORAGE:
0000 66      :
0000 67      :     NONE
0000 68      :
0000 69      : PSECT DECLARATIONS:
0000 70      :
00000000 71      : .PSECT _PASSCODE PIC, USR, CON, REL, LCL, SHR, -
0000 72      :     EXE, RD, NOWRT, LONG
0000 73
```

03  
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- Return absolute value

PASSABS\_L - Take absolute value unchecked

```

0000 75 .SBTTL PASSABS_L - Take absolute value unchecked
0000 76 :++
0000 77 : FUNCTIONAL DESCRIPTION:
0000 78 :
0000 79 : This routine returns the absolute value of a signed longword
0000 80 : integer without checking for overflow. If the argument is
0000 81 : -2**31, the result returned is -2**31.
0000 82 :
0000 83 : CALLING SEQUENCE:
0000 84 :
0000 85 : Result.wl.v = PASSABS_L (Long.rl.r)
0000 86 :
0000 87 : FORMAL PARAMETERS:
0000 88 :
0000 89 : Long - Signed longword argument
0000 90 :
0000 91 : IMPLICIT INPUTS:
0000 92 :
0000 93 : NONE
0000 94 :
0000 95 : IMPLICIT OUTPUTS:
0000 96 :
0000 97 : NONE
0000 98 :
0000 99 : ROUTINE VALUE:
0000 100 :
0000 101 : The absolute value of the argument unless the argument is -2**31
0000 102 : in which case -2**31 is returned.
0000 103 :
0000 104 : SIDE EFFECTS:
0000 105 :
0000 106 : NONE
0000 107 :
0000 108 :--
0000 109 :
0000 110 .ENTRY PASSABS_L, ^M<> ; Integer overflow must be disabled
0002 111
50 04 BC D0 0002 112 MOVL @4(AP), R0 ; Fetch argument
03 18 0006 113 BGEQ 10$ ; Done if not negative
50 50 CE 0008 114 MNEGL R0, R0 ; Take absolute value
04 000B 115 10$: RET ; End of routine PASSABS_L
000C 116
000C 117 .END ; End of module PASSABS_L

```

PASSABS\_L  
Symbol Table

- Return absolute value

K 12

16-SEP-1984 01:21:44 VAX/VMS Macro V04-00  
6-SEP-1984 11:29:58 [PASRTL.SRC]PASABSL.MAR;1

Page 4  
(3)

PASSABS\_L 00000000 RG 01

+-----+  
! Psect synopsis !  
+-----+

PSECT name	Allocation	PSECT No.	Attributes														
ABS	00000000 ( 0.)	00 ( 0.)	NOPIC	USR	CON	ABS	LCL	NOSHR	NOEXE	NORD	NOWRT	NOVEC	BYTE				
_PASSCODE	0000000C ( 12.)	01 ( 1.)	PIC	USR	CON	REL	LCL	SHR	EXE	RD	NOWRT	NOVEC	LONG				

+-----+  
! Performance indicators !  
+-----+

Phase	Page faults	CPU Time	Elapsed Time
Initialization	10	00:00:00.06	00:00:01.29
Command processing	81	00:00:00.65	00:00:03.62
Pass 1	59	00:00:00.31	00:00:01.91
Symbol table sort	0	00:00:00.00	00:00:00.00
Pass 2	37	00:00:00.25	00:00:01.27
Symbol table output	2	00:00:00.01	00:00:00.63
Psect synopsis output	1	00:00:00.02	00:00:00.02
Cross-reference output	0	00:00:00.00	00:00:00.00
Assembler run totals	192	00:00:01.31	00:00:08.75

The working set limit was 750 pages.  
1105 bytes (3 pages) of virtual memory were used to buffer the intermediate code.  
There were 10 pages of symbol table space allocated to hold 1 non-local and 1 local symbols.  
117 source lines were read in Pass 1, producing 10 object records in Pass 2.  
0 pages of virtual memory were used to define 0 macros.

+-----+  
! Macro library statistics !  
+-----+

Macro library name	Macros defined
_\$255\$DUA28:[SYSLIB]STARLET.MLB;2	0

0 GETS were required to define 0 macros.

There were no errors, warnings or information messages.

MACRO/ENABLE=SUPPRESSION/DISABLE=(GLOBAL,TRACEBACK)/LIS=LIS\$:PASABSL/OBJ=OBJ\$:PASABSL MSRC\$:PASABSL/UPDATE=(ENH\$:PASABSL)

PASRT1 LIS	PASMACROS REQ	PASPROLOG REQ
PASFCB SDL	PASPEDEF REQ	PASABSL LIS
PASRT2 LIS	PASBUGCOD REQ	PASCARD2 LIS
PASRT3 LIS	PASRTL MAP	PASCLOSE2 LIS
PASRT4 LIS	PASEXTERN REQ	PASKDB REQ
PASRT5 LIS	PASLIB REQ	PASPFU REQ
PASRT6 LIS	PASBIN LIS	PASCONVER LIS
PASRT7 LIS	PASLOCK2 LIS	