


```

LL          IIIIII  BBBB8888  EEEEEEEEE  XX      XX  TTTTTTTTTT  VV      VV
LL          IIIIII  BBBB8888  EEEEEEEEE  XX      XX  TTTTTTTTTT  VV      VV
LL          II      BB      BB  EE          XX      XX  TT          VV      VV
LL          II      BB      BB  EE          XX      XX  TT          VV      VV
LL          II      BB      BB  EE          XX      XX  TT          VV      VV
LL          II      BB      BB  EE          XX      XX  TT          VV      VV
LL          II      BBBB8888  EEEEEEEEE  XX      XX  TT          VV      VV
LL          II      BBBB8888  EEEEEEEEE  XX      XX  TT          VV      VV
LL          II      BB      BB  EE          XX      XX  TT          VV      VV
LL          II      BB      BB  EE          XX      XX  TT          VV      VV
LL          II      BB      BB  EE          XX      XX  TT          VV      VV
LL          II      BB      BB  EE          XX      XX  TT          VV      VV
LL          II      BB      BB  EE          XX      XX  TT          VV      VV
LLLLLLLLLLL IIIIII  BBBB8888  EEEEEEEEE  XX      XX  TT          VV      VV
LLLLLLLLLLL IIIIII  BBBB8888  EEEEEEEEE  XX      XX  TT          VV      VV

```

```

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
LL          II      SS
LLLLLLLLLLL IIIIII  SSSSSSSS
LLLLLLLLLLL IIIIII  SSSSSSSS

```

.....

LIBSEXTV
Table of contents

(2) 49
(3) 72

DECLARATIONS
LIBSEXTV - extract and sign extend a field

```
0000 1 .TITLE LIBSEXTV - extract a signed extended variable bit field
0000 2 .IDENT /1-002/ ; File: LIBSEXTV.MAR
0000 3
0000 4
0000 5 *****
0000 6 *
0000 7 * COPYRIGHT (c) 1978, 1980, 1982, 1984 BY *
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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: General Utility Library
0000 31
0000 32 : ABSTRACT:
0000 33
0000 34 : Return a longword field which has been extracted from the specified
0000 35 : variable bit field.
0000 36
0000 37 : ENVIRONMENT: User Mode, AST Reentrant
0000 38
0000 39 --
0000 40 : AUTHOR: Donald G. Petersen, CREATION DATE: 30-Dec-77
0000 41
0000 42 : MODIFIED BY:
0000 43
0000 44 : Donald G. Petersen, : VERSION 00
0000 45 : 01 - Original
0000 46 : 1-001 - Update version number and copyright notice. JBS 16-NOV-78
0000 47 : 1-002 - Add '-' to PSECT directive. JBS 21-DEC-78
```

```
0000 49 .SBTTL DECLARATIONS
0000 50 :
0000 51 : INCLUDE FILES:
0000 52 :
0000 53 :
0000 54 :
0000 55 : MACROS:
0000 56 :
0000 57 :
0000 58 :
0000 59 : EQUATED SYMBOLS:
0000 60 :
0000 61 :
0000 62 :
0000 63 : OWN STORAGE:
0000 64 :
0000 65 :
0000 66 :
0000 67 : PSECT DECLARATIONS:
0000 68 :
00000000 69 .PSECT _LIB$CODE PIC, SHR, LONG, EXE, NOWRT
0000 70
```

```

0000 72      .SBTTL LIB$EXTV - extract and sign extend a field
0000 73      :++
0000 74      : FUNCTIONAL DESCRIPTION:
0000 75      :
0000 76      : Return a signed extended longword field which has been extracted from the
0000 77      : specified variable bit field. If a size of zero is specified, then a zero
0000 78      : is returned. Specifying a size greater than 31 results in a reserved
0000 79      : operand fault.
0000 80      :
0000 81      : CALLING SEQUENCE:
0000 82      :
0000 83      : field.wlu.v = LIB$EXTV (pos.rl.r, size.rbu.r, base.rv.r)
0000 84      :
00000004 0000 85      : POSITION = 4 ; Adr. of longword containing position
00000008 0000 86      : SIZE = 8 ; Adr. of byte containing size of field
0000000C 0000 87      : BASE = 12 ; Adr. of base of field
0000 88      :
0000 89      :
0000 90      : INPUT PARAMETERS:
0000 91      :
0000 92      : NONE
0000 93      :
0000 94      : IMPLICIT INPUTS:
0000 95      :
0000 96      : NONE
0000 97      :
0000 98      : OUTPUT PARAMETERS:
0000 99      :
0000 100     : NONE
0000 101     :
0000 102     : IMPLICIT OUTPUTS:
0000 103     :
0000 104     : NONE
0000 105     :
0000 106     : FUNCTION VALUE:
0000 107     :
0000 108     : field
0000 109     :
0000 110     : SIDE EFFECTS:
0000 111     :
0000 112     : $$$ROPRAND - reserved operand fault for size greater than 31
0000 113     :
0000 114     :--
0000 115     :
0000 116     :
0000 117     : .ENTRY LIB$EXTV, ^M<> ;Entry point
0002 118     :
50 0C BC 08 BC 04 BC EE 0002 119     : EXTV @POSITION(AP), @SIZE(AP), -
000A 120     : @BASE(AP), R0 ; extract
04 000A 121     : RET
000B 122     : .END

```

LIB\$EXTV
Symbol table

BASE = 0000000C
LIB\$EXTV = 00000000 RG 01
POSITION = 00000004
SIZE = 00000008

! Psect synopsis !

PSECT name	Allocation	PSECT No.	Attributes
ABS	00000000 (0.)	00 (0.)	NOPIC USR CON ABS LCL NOSHR NOEXE NORD NOWRT NOVEC BYTE
_LIB\$CODE	00000008 (11.)	01 (1.)	PIC USR CON REL LCL SHR EXE RD NOWRT NOVEC LONG

! Performance indicators !

Phase	Page faults	CPU Time	Elapsed Time
Initialization	29	00:00:00.03	00:00:01.94
Command processing	102	00:00:00.30	00:00:02.02
Pass 1	63	00:00:00.22	00:00:02.52
Symbol table sort	0	00:00:00.00	00:00:00.00
Pass 2	37	00:00:00.15	00:00:01.52
Symbol table output	1	00:00:00.00	00:00:00.00
Psect synopsis output	2	00:00:00.02	00:00:00.02
Cross-reference output	0	00:00:00.00	00:00:00.00
Assembler run totals	236	00:00:00.73	00:00:08.03

The working set limit was 900 pages.
1166 bytes (3 pages) of virtual memory were used to buffer the intermediate code.
There were 10 pages of symbol table space allocated to hold 4 non-local and 0 local symbols.
122 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=LISS:LIBEXTV/OBJ=OBJ\$:LIBEXTV MSRCS:LIBEXTV/UPDATE=(ENHS:LIBEXTV)

