


```

SSSSSSSS TTTT TTTT T RRRRRRRR UU UU CCCCCCCC DDDDDDDD EEEEEEEEE EEEEEEEEE FFFFFFFF
SSSSSSSS TTTT TTTT T RRRRRRRR UU UU CCCCCCCC DDDDDDDD EEEEEEEEE EEEEEEEEE FFFFFFFF
SS TT RR RR UU UU CC DD DD EEEEEEEEE FFFFFFFF
SS TT RR RR UU UU CC DD DD EEEEEEEEE FFFFFFFF
SS TT RR RR UU UU CC DD DD EEEEEEEEE FFFFFFFF
SSSSSS TT RRRRRRRR UU UU CC DD DD EEEEEEEEE FFFFFFFF
SSSSSS TT RRRRRRRR UU UU CC DD DD EEEEEEEEE FFFFFFFF
SS TT RR RR UU UU CC DD DD EEEEEEEEE FFFFFFFF
SS TT RR RR UU UU CC DD DD EEEEEEEEE FFFFFFFF
SS TT RR RR UU UU CC DD DD EEEEEEEEE FFFFFFFF
SSSSSS TT RRRRRRRR UU UU CC DD DD EEEEEEEEE FFFFFFFF
SSSSSS TT RRRRRRRR UU UU CC DD DD EEEEEEEEE FFFFFFFF

```

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RRRRRRRR EEEEEEEEE QQQQQQ
RRRRRRRR EEEEEEEEE QQQQQQ
RR RR EE QQ QQ
RR RR EE QQ QQ
RR RR EE QQ QQ
RRRRRRRR EEEEEEEEE QQ QQ
RRRRRRRR EEEEEEEEE QQ QQ
RR RR EE QQ QQ
RR RR EE QQ QQ
RR RR EE QQ QQ
RR RR EEEEEEEEE QQQQ QQ
RR RR EEEEEEEEE QQQQ QQ

```

STRUCDEF -- DECLARATION FILE FOR DATA STRUCTURE DEFINITION
AND ACCESS MACROS USED IN THE VAX DEBUGGER

Version: 'V04-000'

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*****
*
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WRITTEN BY
Bert Beander August, 1981.

MODULE FUNCTION:
This REQUIRE file contains all macros used in defining and accessing
data structures (BLISS BLOCKS) in the VAX Debugger. These symbolic
names should always be used in BLISS Field-References.

DATA STRUCTURE DEFINITION AND ACCESS

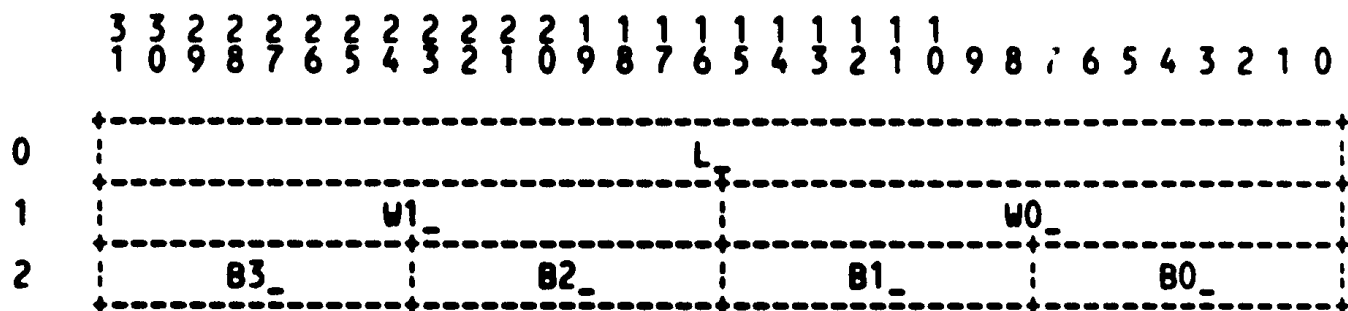
The following macros must be used in defining field names for all data structures in the Debugger. These macros supply the position, size, and sign-extension values when used in FIELD declarations for BLOCK and BLOCKVECTOR data structures. The various generic forms (as specified by the letters in the names) are as follows:

- A Materialized address
- L Longword
- W Zero-extended word
- B Zero-extended byte
- V Zero-extended bit field
- SW Sign-extended word
- SB Sign-extended byte
- SV Sign-extended bit field

The "A" form should be used whenever the field being defined is such that only the address of the field may be materialized in a structure reference; that is, fetch and store operations on the field are not valid. An example of such a field is an ASCII string.

Each of the "V" and "SV" forms take one or two parameters. The first parameter is the bit position within the longword (or byte) and the second is the field size in bits. The second parameter is optional; if omitted, it defaults to 1. Thus V(5) means bit 5 while V(5,3) means the 3-bit field starting at bit 5 and ending at bit 7. Bit positions are counted from the low-order (least significant) end of the longword, starting at zero.

The following data structure picture shows the locations of the various fields that can be specified. Note how the bit positions are numbered along the top of the illustration.



MACRO

- A_ = 0, 0, 0 % ! Address of a longword
- A0_ = 0, 0, 0 % ! Address of byte 0
- A1_ = 8, 0, 0 % ! Address of byte 1

```

A2_   = 16, 0, 0 %;      ! Address of byte 2
A3_   = 24, 0, 0 %;      ! Address of byte 3

L_    = 0, 32, 0 %;      ! Longword
W_    = 0, 16, 0 %;      ! Word, zero-extended
B_    = 0, 8, 0 %;       ! Byte, zero-extended

W0_   = 0, 16, 0 %;      ! Word 0 zero-extended
W1_   = 16, 16, 0 %;     ! Word 1 zero-extended

B0_   = 0, 8, 0 %;       ! Byte 0 zero-extended
B1_   = 8, 8, 0 %;       ! Byte 1 zero-extended
B2_   = 16, 8, 0 %;      ! Byte 2 zero-extended
B3_   = 24, 8, 0 %;      ! Byte 3 zero-extended

V_(P,S) = P, %IF %NULL(S) %THEN 1 %ELSE S %FI, 0 %, ! Unsigned bit field

V0_(P,S) = P, %IF %NULL(S) %THEN 1 %ELSE S %FI, 0 %, ! Bits in B0_
V1_(P,S) = (P+8), %IF %NULL(S) %THEN 1 %ELSE S %FI, 0 %, ! Bits in B1_
V2_(P,S) = (P+16), %IF %NULL(S) %THEN 1 %ELSE S %FI, 0 %, ! Bits in B2_
V3_(P,S) = (P+24), %IF %NULL(S) %THEN 1 %ELSE S %FI, 0 %, ! Bits in B3_

SW_   = 0, 16, 1 %;      ! Word, sign-extended
SB_   = 0, 8, 1 %;       ! Byte, sign-extended

SW0_  = 0, 16, 1 %;      ! Word 0 sign-extended
SW1_  = 16, 16, 1 %;     ! Word 1 sign-extended

SB0_  = 0, 8, 1 %;       ! Byte 0 sign-extended
SB1_  = 8, 8, 1 %;       ! Byte 1 sign-extended
SB2_  = 16, 8, 1 %;      ! Byte 2 sign-extended
SB3_  = 24, 8, 1 %;      ! Byte 3 sign-extended

SV_(P,S) = P, %IF %NULL(S) %THEN 1 %ELSE S %FI, 1 %, ! Signed bit field

SV0_(P,S) = P, %IF %NULL(S) %THEN 1 %ELSE S %FI, 1 %, ! Bits in B0_
SV1_(P,S) = (P+8), %IF %NULL(S) %THEN 1 %ELSE S %FI, 1 %, ! Bits in B1_
SV2_(P,S) = (P+16), %IF %NULL(S) %THEN 1 %ELSE S %FI, 1 %, ! Bits in B2_
SV3_(P,S) = (P+24), %IF %NULL(S) %THEN 1 %ELSE S %FI, 1 %, ! Bits in B3_

```

```

! END OF STRUCDEF.REQ

```

This image displays a grid of 100 small, faded screenshots of various VAX/VMS system utilities and diagnostic tools. The screenshots are arranged in a 10x10 grid. Some of the visible titles and content include:

- TRACEMSG MDL**: A screen showing message tracing details.
- TRACE**: A screen showing system trace information.
- TRACE MAP**: A screen showing a map of trace data.
- STRUCDEF REQ**: A screen showing structure definition requirements.
- TBKLIB REQ**: A screen showing backup library requirements.
- TBKPROLOG REQ**: A screen showing backup prolog requirements.
- STRUCDEF LIS**: A screen showing structure definition lists.
- TBKDST REQ**: A screen showing backup destination requirements.

The screenshots are mostly illegible due to fading, but they represent a comprehensive set of system utilities.