


```

IIIIII  NN  NN  IIIIII  88888888  IIIIII  TTTTTTTTTT
IIIIII  NN  NN  IIIIII  88888888  IIIIII  TTTTTTTTTT
  II    NN  NN  II      88      88    II    TT
  II    NN  NN  II      88      88    II    TT
  II    NNNN NN  II      88      88    II    TT
  II    NNNN NN  II      88      88    II    TT
  II    NN  NN  II      88888888  II    TT
  II    NN  NN  II      88888888  II    TT
  II    NN  NN  II      88      88    II    TT
  II    NN  NN  II      88      88    II    TT
  II    NN  NN  II      88      88    II    TT
  II    NN  NN  II      88      88    II    TT
  II    NN  NN  IIIIII  88888888  IIIIII  TT
  IIIIII  NN  NN  IIIIII  88888888  IIIIII  TT

```

```

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
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28
29
30
31
32
33
34
35
36
37
38
39
40
41
42
43
44
45
46
47
48
49
50
51
52
53
54
55
56
57

```

0001 0 MODULE INIBIT (
0002 0
0003 0     LANGUAGE (BLISS32),
0004 0     IDENT = 'V04-000'
0005 0 ) =
0006 1 BEGIN
0007 1
0008 1 *****
0009 1 *
0010 1 *  COPYRIGHT (c) 1978, 1980, 1982, 1984 BY
0011 1 *  DIGITAL EQUIPMENT CORPORATION, MAYNARD, MASSACHUSETTS.
0012 1 *  ALL RIGHTS RESERVED.
0013 1 *
0014 1 *  THIS SOFTWARE IS FURNISHED UNDER A LICENSE AND MAY BE USED AND COPIED
0015 1 *  ONLY IN ACCORDANCE WITH THE TERMS OF SUCH LICENSE AND WITH THE
0016 1 *  INCLUSION OF THE ABOVE COPYRIGHT NOTICE. THIS SOFTWARE OR ANY OTHER
0017 1 *  COPIES THEREOF MAY NOT BE PROVIDED OR OTHERWISE MADE AVAILABLE TO ANY
0018 1 *  OTHER PERSON. NO TITLE TO AND OWNERSHIP OF THE SOFTWARE IS HEREBY
0019 1 *  TRANSFERRED.
0020 1 *
0021 1 *  THE INFORMATION IN THIS SOFTWARE IS SUBJECT TO CHANGE WITHOUT NOTICE
0022 1 *  AND SHOULD NOT BE CONSTRUED AS A COMMITMENT BY DIGITAL EQUIPMENT
0023 1 *  CORPORATION.
0024 1 *
0025 1 *  DIGITAL ASSUMES NO RESPONSIBILITY FOR THE USE OR RELIABILITY OF ITS
0026 1 *  SOFTWARE ON EQUIPMENT WHICH IS NOT SUPPLIED BY DIGITAL.
0027 1 *
0028 1 *
0029 1 *****
0030 1
0031 1 ++
0032 1
0033 1 FACILITY:  INIT Utility Structure Level 1
0034 1
0035 1 ABSTRACT:
0036 1
0037 1     This routine initializes the contents of the volume storage bitmap.
0038 1
0039 1 ENVIRONMENT:
0040 1
0041 1     STARLET operating system, including privileged system services
0042 1     and internal exec routines.
0043 1
0044 1 --
0045 1
0046 1
0047 1 AUTHOR:  Andrew C. Goldstein,  CREATION DATE:  13-Nov-1977  14:37
0048 1
0049 1 MODIFIED BY:
0050 1
0051 1     V02-003 LMP0002      L. Mark Pilant      11-Nov-1981  13:15
0052 1     Fix bitmap allocation when a large number of blocks are
0053 1     to be allocated.
0054 1
0055 1     V02-002 ACG0191     Andrew C. Goldstein,  1-Apr-1981  10:33
0056 1     Fix index file allocation at end of volume
0057 1

```

INIBIT
V04-000

```

: 58      0058 1 :      V0101  ACG0069      Andrew C. Goldstein,   9-Oct-1979  16:58
: 59      0059 1 :          Remove device data table
: 60      0060 1 :
: 61      0061 1 :      V0100  ACG00001      Andrew C. Goldstein, 10-Oct-1978  21:27
: 62      0062 1 :          Previous revision history moved to [INIT.SRC]INIT.REV
: 63      0063 1 :          **
: 64      0064 1 :
: 65      0065 1 :
: 66      0066 1 LIBRARY 'SYSS$LIBRARY:LIB.L32';
: 67      0067 1 REQUIRE 'SRC$:INIDEF.B32';
: 68      0358 1 REQUIRE 'LIBDS:[VM$LIB.OBJ]INITMSG.B32';

```

IN
VO

```

70 0490 1 GLOBAL ROUTINE INIT_BITMAP : NOVALUE =
71 0491 1
72 0492 1 ++
73 0493 1
74 0494 1 FUNCTIONAL DESCRIPTION:
75 0495 1
76 0496 1     This routine initializes the contents of the volume storage bitmap.
77 0497 1
78 0498 1
79 0499 1 CALLING SEQUENCE:
80 0500 1     INIT_BITMAP ()
81 0501 1
82 0502 1 INPUT PARAMETERS:
83 0503 1     NONE
84 0504 1
85 0505 1 IMPLICIT INPUTS:
86 0506 1     device data table
87 0507 1     allocation table
88 0508 1
89 0509 1 OUTPUT PARAMETERS:
90 0510 1     NONE
91 0511 1
92 0512 1 IMPLICIT OUTPUTS:
93 0513 1     NONE
94 0514 1
95 0515 1 ROUTINE VALUE:
96 0516 1     NONE
97 0517 1
98 0518 1 SIDE EFFECTS:
99 0519 1     storage bitmap file written
100 0520 1
101 0521 1 --
102 0522 1
103 0523 2 BEGIN
104 0524 2
105 0525 2 BUILTIN
106 0526 2     ROT;
107 0527 2
108 0528 2 LOCAL
109 0529 2     BLOCK_COUNT,           ! number of blocks in storage map
110 0530 2     MAP_LBN,               ! LBN of current bitmap block
111 0531 2     PREV_LBN,             ! start LBN + 1 of last entry processed
112 0532 2     NEXT_LBN,          ! start LBN of current allocation table entry
113 0533 2     INDEX,               ! table index of current entry
114 0534 2     BIT_COUNT,          ! number of bits to clear in storage map
115 0535 2     MAP_VBN,            ! relative block in storage map to use
116 0536 2     BIT_POS,            ! bit position of start of area
117 0537 2     BIT_IDX;            ! index into bitmap buffer
118 0538 2
119 0539 2 EXTERNAL
120 0540 2     INIT_OPTIONS      : BITVECTOR, ! command option flags
121 0541 2     ALLOC_TABLE_CNT   : VECTOR,      ! allocation block count table
122 0542 2     ALLOC_TABLE_LBN  : VECTOR,      ! allocation LBN table
123 0543 2     BITMAP_CNT,      ! block count of storage map file
124 0544 2     BITMAP_LBN,      ! starting LBN of storage map file
125 0545 2     VOLUME_SIZE,    ! size of volume rounded to next cluster
126 0546 2     CLUSTER,        ! volume cluster factor

```

```

: 127 0547 2          BUFFER          : BBLOCK,          : I/O buffer
: 128 0548 2          DEVICE_CHAR    : BBLOCK;        : device characteristics
: 129 0549 2
: 130 0550 2 EXTERNAL LITERAL
: 131 0551 2          ALLOC_MAX      : UNSIGNED (16); ! total number of entries in allocation table
: 132 0552 2
: 133 0553 2 EXTERNAL ROUTINE
: 134 0554 2          CHECKSUM2,      : compute block checksum
: 135 0555 2          WRITE_BLOCK;   : write block on volume
: 136 0556 2
: 137 0557 2
: 138 0558 2 ! Build the storage control block and write it out.
: 139 0559 2 !
: 140 0560 2
: 141 0561 2 CH$FILL (0, 512, BUFFER);
: 142 0562 2
: 143 0563 2 IF .INIT_OPTIONS[OPT_STRUCTURE1]
: 144 0564 2 THEN
: 145 0565 2 BEGIN
: 146 0566 2 MAP BUFFER : VECTOR;
: 147 0567 2 BLOCK_COUNT = .BITMAP CNT - 1;
: 148 0568 2 IF .BLOCK_COUNT GTRU T26
: 149 0569 2 THEN BLOCK_COUNT = 0;
: 150 0570 2
: 151 0571 2 (BUFFER+3)<0,8> = .BLOCK_COUNT;
: 152 0572 2 INCR J FROM 0 TO .BLOCK_COUNT - 1
: 153 0573 2 DO BUFFER[J+1] = 4096;
: 154 0574 2 BUFFER[.BLOCK_COUNT+1] = ROT (.VOLUME_SIZE, 16);
: 155 0575 2 END
: 156 0576 2
: 157 0577 2 ELSE
: 158 0578 2 BEGIN
: 159 0579 2 BUFFER[SCB$W_STRUCLEV] = SCB$C_LEVEL2 + 1;
: 160 0580 2 BUFFER[SCB$W_CLUSTER] = .CLUSTER;
: 161 0581 2 BUFFER[SCB$L_VOLSIZE] = .DEVICE_CHAR[DIB$L_MAXBLOCK];
: 162 0582 2 BUFFER[SCB$L_BLKSIZE] = (.DEVICE_CHAR[DIB$B_SECTORS]
: 163 0583 2 * .DEVICE_CHAR[DIB$B_TRACKS]
: 164 0584 2 * .DEVICE_CHAR[DIB$W_CYLINDERS])
: 165 0585 2 / .DEVICE_CHAR[DIB$L_MAXBLOCK];
: 166 0586 2 BUFFER[SCB$L_SECTORS] = .DEVICE_CHAR[DIB$B_SECTORS];
: 167 0587 2 BUFFER[SCB$L_TRACKS] = .DEVICE_CHAR[DIB$B_TRACKS];
: 168 0588 2 BUFFER[SCB$L_CYLINDER] = .DEVICE_CHAR[DIB$W_CYLINDERS];
: 169 0589 2
: 170 0590 2 CHECKSUM2 (BUFFER, $BYTEOFFSET (SCB$W_CHECKSUM));
: 171 0591 2 END;
: 172 0592 2
: 173 0593 2 WRITE_BLOCK (.BITMAP_LBN, BUFFER);
: 174 0594 2
: 175 0595 2 ! Now write the contents of the bitmap, marking off the areas listed in the
: 176 0596 2 ! allocation table. To save disk thrashing, we process the table entries
: 177 0597 2 ! in LBN order.
: 178 0598 2 !
: 179 0599 2 !
: 180 0600 2 MAP LBN = .BITMAP_LBN + 1;
: 181 0601 2 CH$FILL (-1, 512, BUFFER);
: 182 0602 2 PREV_LBN = 0;
: 183 0603 2 WHILE 1 DO

```


				52	0000G	CF	3C	00069	MOVZWL	DEVICE_CHAR+10, R2	0584			
				50			52	C4	0006E	MULL2	R2, R0	0585		
	0000G	CF		50	0000G	CF	C7	00071	DIVL3	DEVICE_CHAR+112, R0, BUFFER+8	0586			
					0000G	CF	9A	00079	MOVZBL	DEVICE_CHAR+8, BUFFER+12	0587			
					0000G	CF	9A	00080	MOVZBL	DEVICE_CHAR+9, BUFFER+16	0588			
					0000G	CF	3C	00087	MOVZWL	DEVICE_CHAR+10, BUFFER+20	0590			
				7E	01FE	8F	3C	0008E	MOVZWL	#510, -(SP)				
					0000G	CF	9F	00093	PUSHAB	BUFFER				
					0000G	CF	02	FB	00097	CALLS	#2, CHECKSUM2			
					0000G	CF	9F	0009C	5\$:	PUSHAB	BUFFER	0593		
					0000G	CF	DD	000A0		PUSHL	BITMAP_LBN			
					0000G	CF	02	FB	000A4	CALLS	#2, WRITE_BLOCK	0600		
0200	8F	FF	56		0000G	CF	01	C1	000A9	ADDL3	#1, BITMAP_LBN, MAP_LBN	0601		
			8F		0000G	CF	00	2C	000AF	MOVCS	#0, (SP), #-1, #512, BUFFER			
								000B7						
							6E	D4	000BA	CLRL	PREV_LBN	0602		
				59			01	CE	000BC	6\$:	MNEGL	#1, NEXT_LBN	0610	
				50			01	CE	000BF		MNEGL	#1, J	0613	
							16	11	000C2		BRB	8\$		
				51	0000G	CF	40	D0	000C4	7\$:	MOVL	ALLOC_TABLE_LBN[J], R1		
				6E			51	D1	000CA		CMPL	R1, PREV_LBN		
							0B	1F	000CD		BLSSU	8\$		
				59			51	D1	000CF		CMPL	R1, NEXT_LBN	0614	
							06	1E	000D2		BGEQU	8\$		
				59			51	D0	000D4		MOVL	R1, NEXT_LBN	0617	
				58			50	D0	000D7		MOVL	J, INDEX	0618	
	E2			50	00000000G	8F	F3	000DA	8\$:	AOBLEQ	#ALLOC_MAX-1, J, 7\$	0611		
		FFFFFFF		8F			59	D1	000E2		CMPL	NEXT_LBN, #-1	0621	
							03	12	000E9		BNEQ	9\$		
						0084	31	000EB		BRW	15\$			
				6E	01	A9	9E	000EE	9\$:	MOVAB	1(R9), PREV_LBN	0622		
	5A	0000G	CF	4B	0000G	CF	C7	000F2		DIVL3	CLUSTER, ALLOC_TABLE_CNT[INDEX], BIT_COUNT	0628		
	51			59	0000G	CF	C7	000FB		DIVL3	CLUSTER, NEXT_LBN, RT	0629		
	50			56	0000G	CF	C3	00101		SUBL3	BITMAP_LBN, MAP_LBN, R0			
	50			50			0C	78	00107	ASHL	#12, R0, R0			
				51			50	C2	0010B	SUBL2	R0, R1			
				58	1000	C1	9E	0010E		MOVAB	4096(R1), BIT_POS			
				8F	00001000	58	D1	00113	10\$:	CMPL	BIT_POS, #4096	0637		
							1F	1F	0011A		BLSSU	11\$		
								9F	0011C		PUSHAB	BUFFER	0639	
					0000G	CF	56	DD	00120		PUSHL	MAP_LBN		
					0000G	CF	02	FB	00122		CALLS	#2, WRITE_BLOCK		
0200	8F	FF	8F				00	2C	00127		MOVCS	#0, (SP), #-1, #512, BUFFER	0640	
					0000G	CF		0012F						
							56	D6	00132		INCL	MAP_LBN	0641	
				58	F000	C8	9E	00134		MOVAB	-4096(R8), BIT_POS	0642		
							D8	11	00139		BRB	10\$	0637	
				57	01	AA	9E	0013B	11\$:	MOVAB	1(R10), J	0645		
							2B	11	0013F		BRB	14\$		
					00	0000G	CF	58	E5	00141	12\$:	BBCC	BIT_POS, BUFFER, 13\$	0649
							58	D6	00147	13\$:	INCL	BIT_POS	0650	
					00001000	8F	58	D1	00149		CMPL	BIT_POS, #4096	0652	
							1A	1F	00150		BLSSU	14\$		
					0000G	CF	9F	00152		PUSHAB	BUFFER	0655		
							56	DD	00156		PUSHL	MAP_LBN		
					0000G	CF	02	FB	00158		CALLS	#2, WRITE_BLOCK		
0200	8F	FF	8F				00	2C	0015D		MOVCS	#0, (SP), #-1, #512, BUFFER	0656	

```

0000G CF 00165
      56 D6 00168      INCL MAP_LBN      : 0657
      58 D4 0016A      CLRL BIT_POS      : 0658
      D2 57 F5 0016C 14$: SOBGR J, T2$      : 0645
      FF4A 31 0016F      BRW 6$      : 0603
0000G CF 9F 00172 15$: PUSHAB BUFFER      : 0668
      56 DD 00176      PUSHL MAP_LBN
      02 FB 00178      CALLS #2, WRITE_BLOCK
      56 D6 0017D      INCL MAP_LBN      : 0669
0200 8F 00 6E 00 2C 0017F      MOVCS #0, (SP), #0, #512, BUFFER : 0670
      0000G CF 00186
      0000G CF C1 00189 16$: ADDL3 BITMAP_CNT, BITMAP_LBN, R0 : 0672
      56 D1 00191      CMPL MAP_LBN, R0
      OF 1E 00194      BGEQU 17$
      0000G CF 9F 00196      PUSHAB BUFFER      : 0674
      56 DD 0019A      PUSHL MAP_LBN
      02 FB 0019C      CALLS #2, WRITE_BLOCK
      56 D6 001A1      INCL MAP_LBN      : 0675
      E4 11 001A3      BRB 16$      : 0672
      04 001A5 17$: RET      : 0678
  
```

: Routine Size: 422 bytes, Routine Base: \$CODE\$ + 0000

```

: 259 0679 1
: 260 0680 1 END
: 261 0681 0 ELUDOM
  
```

PSECT SUMMARY

Name	Bytes	Attributes
\$CODE\$	422	NOVEC, NOWRT, RD, EXE, NOSHR, LCL, REL, CON, NOPIC, ALIGN(2)

Library Statistics

File	Symbols		Pages Mapped	Processing Time
	Total	Loaded Percent		
_\$255\$DUA28:[SYSLIB]LIB.L32;1	18619	18 0	1000	00:02.0

COMMAND QUALIFIERS

INIBIT
V04-000

J 2
16-Sep-1984 01:43:57
14-Sep-1984 12:35:13

VAX-11 Bliss-32 V4.0-742
DISK\$VMSMASTER:[INIT.SRC]INIBIT.B32;1 Page 9 (2)

IN
VO

: BLISS/CHECK=(FIELD,INITIAL,OPTIMIZE)/LIS=LISS:INIBIT/OBJ=OBJ\$:INIBIT MSRC\$:INIBIT/UPDATE=(ENHS:INIBIT)

: Size: 422 code + 0 data bytes
: Run Time: 00:14.5
: Elapsed Time: 00:29.3
: Lines/CPU Min: 2827
: Lexemes/CPU-Min: 34999
: Memory Used: 150 pages
: Compilation Complete

The image displays a grid of 144 small document thumbnails, arranged in 12 rows and 12 columns. Each thumbnail represents a page from a technical manual. The thumbnails contain various types of content, including text, diagrams, and tables. Several thumbnails have larger text labels overlaid on them, identifying specific sections or topics:

- INTDI LIS (row 3, column 4)
- INTIMF LIS (row 5, column 3)
- INTOSK LIS (row 7, column 1)
- INTIPAR LIS (row 7, column 5)
- INTITAP LIS (row 7, column 8)
- INTINDX LIS (row 8, column 4)
- INTIBIT LIS (row 10, column 1)