

BBBBBBBBBBBBBB		000000000		000000000		TTTTTTTTTTTTTT		SSSSSSSSSSSS
BBBBBBBBBBBBBB		000000000		000000000		TTTTTTTTTTTTTT		SSSSSSSSSSSS
BBBBBBBBBBBBBB		000000000		000000000		TTTTTTTTTTTTTT		SSSSSSSSSSSS
BBB	BBB	000	000	000	000	TTT	SSS	
BBB	BBB	000	000	000	000	TTT	SSS	
BBB	BBB	000	000	000	000	TTT	SSS	
BBB	BBB	000	000	000	000	TTT	SSS	
BBB	BBB	000	000	000	000	TTT	SSS	
BBB	BBB	000	000	000	000	TTT	SSS	
BBBBBBBBBBBBBB		000	000	000	000	TTT	SSS	
BBBBBBBBBBBBBB		000	000	000	000	TTT	SSS	
BBBBBBBBBBBBBB		000	000	000	000	TTT	SSS	
BBB	BBB	000	000	000	000	TTT	SSS	
BBB	BBB	000	000	000	000	TTT	SSS	
BBB	BBB	000	000	000	000	TTT	SSS	
BBB	BBB	000	000	000	000	TTT	SSS	
BBB	BBB	000	000	000	000	TTT	SSS	
BBB	BBB	000	000	000	000	TTT	SSS	
BBBBBBBBBBBBBB		000000000		000000000		TTTTTTTTTTTTTT		SSSSSSSSSSSS
BBBBBBBBBBBBBB		000000000		000000000		TTTTTTTTTTTTTT		SSSSSSSSSSSS
BBBBBBBBBBBBBB		000000000		000000000		TTTTTTTTTTTTTT		SSSSSSSSSSSS

```
AAAAAA  CCCCCCCC  TTTTTTTTTT  IIIIIII  MM  MM  AAAAAA  GGGGGGGG  EEEEEEEEEE
AAAAAA  CCCCCCCC  TTTTTTTTTT  IIIIIII  MM  MM  AAAAAA  GGGGGGGG  EEEEEEEEEE
AA      AA      CC      TT      MM  MM  AA      AA  GG      EE
AA      AA      CC      TT      MMMM MMMM AA      AA  GG      EE
AA      AA      CC      TT      MM  MM  AA      AA  GG      EE
AA      AA      CC      TT      MM  MM  AA      AA  GG      EE
AA      AA      CC      TT      MM  MM  AA      AA  GG      EE
AAAAAAAA CC      TT      MM  MM  AAAAAAAAAA GG  GGGGGG  EEEEEEEEE
AAAAAAAA CC      TT      MM  MM  AAAAAAAAAA GG  GGGGGG  EEEEEEEEE
AA      AA      CC      TT      MM  MM  AA      AA  GG      EE
AA      AA      CC      TT      MM  MM  AA      AA  GG      EE
AA      AA      CCCCCCCC TT      IIIIIII MM  MM  AA      AA  GGGGGG  EEEEEEEEE
AA      AA      CCCCCCCC TT      IIIIIII MM  MM  AA      AA  GGGGGG  EEEEEEEEE
```

```
LL      IIIIIII  SSSSSSSS
LL      IIIIIII  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
LLLLLLLLL IIIIIII  SSSSSSSS
LLLLLLLLL IIIIIII  SSSSSSSS
```

(2) 48  
(3) 68

DECLARATIONS  
BOO\$ACTIMAGE

```

0000 1 .TITLE ACTIMAGE - ACTIVATE NEXT IMAGE
0000 2 .IDENT 'V04-000'
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: STANDALONE SYSGEN
0000 31 :
0000 32 : ABSTRACT:
0000 33 : This module allows an image to activate another image in its
0000 34 : place. The running image is run down and the specified
0000 35 : image is activated.
0000 36 :
0000 37 : ENVIRONMENT: User and Exec modes, P0 and P1 space
0000 38 :
0000 39 : AUTHOR: STEVE BECKHARDT, CREATION DATE: 26-Sep-1979
0000 40 :
0000 41 : MODIFIED BY:
0000 42 :
0000 43 : V03-001 MSH0054 Michael S. Harvey 30-May-1984
0000 44 : Replace obsolete image activator scratch space symbol.
0000 45 :
0000 46 :--

```

```
0000 48 .SBTTL DECLARATIONS
0000 49 :
0000 50 : INCLUDE FILES:
0000 51 :
0000 52 :
0000 53 :
0000 54 : MACROS:
0000 55 :
0000 56 :
0000 57 :
0000 58 : EQUATED SYMBOLS:
0000 59 :
0000 60 :
0000 61 :
0000 62 : OWN STORAGE:
0000 63 :
0000 64 :
0000 65 :
00000000 66 .PSECT BOO$ACTIMAGE, RD, NOWRT, EXE
```

```

0000 68      .SBTTL BOO$ACTIMAGE
0000 69      :++
0000 70      : FUNCTIONAL DESCRIPTION:
0000 71      :
0000 72      : This routine runs down the current image and activates the
0000 73      : specified image. It does this by copying code into the
0000 74      : image header buffer in the control region and jumping to it.
0000 75      : This code sets up the image name in the image header buffer
0000 76      : and then jumps into PROCSTART to activate the image.
0000 77      :
0000 78      : CALLING SEQUENCE:
0000 79      :
0000 80      : CALLS BOO$ACTIMAGE
0000 81      :
0000 82      : INPUT PARAMETERS:
0000 83      :
0000 84      : 4(AP)          Address of image name descriptor
0000 85      :
0000 86      : IMPLICIT INPUTS:
0000 87      :
0000 88      : NONE
0000 89      :
0000 90      : OUTPUT PARAMETERS:
0000 91      :
0000 92      : NONE
0000 93      :
0000 94      : IMPLICIT OUTPUTS:
0000 95      :
0000 96      : NONE
0000 97      :
0000 98      : COMPLETION CODES:
0000 99      :
0000 100     : NONE
0000 101     :
0000 102     : SIDE EFFECTS:
0000 103     :
0000 104     : NONE
0000 105     :
0000 106     :--
0000 107     :
0000 108     BOO$ACTIMAGE::
0000 109     .WORD 0
0002 110
0002 111     $CMEXEC_S      B^10$, (AP)      : Change to exec mode
000E 112     RET                          : Should never return here
000F 113
007C 114 10$: .WORD ^M<R2,R3,R4,R5,R6>
0011 115
5E 56 50 01 D0 0011 116     MOVL #1,R0                          : Exec mode
00000000'9F40 D0 0014 117     MOVL @#CTL$AL_STACK[R0],SP      : Reset exec stack
00000000'9F 9E 001C 118     MOVAB @#IAC$AL_IMGACTBUF,R6    : Get address of image activator
0023 119     : scratch area
0023 120     MOVCL S^#CDSIZE,B^20$, (R6)    : Move code
66 2E'AF 24' 28 0023 121     MOVL 4(AP),R5                    : Get address of image name descriptor
55 04 AC D0 0028 122     JMP (R6)                          : Jump to moved code
002E 123
002E 124 20$: ;

```

```
002E 125 ; This code doesn't get executed here. Rather, it is moved
002E 126 ; into the image activator scratch area in the control region
002E 127 ; and executed there.
002E 128
5C 00000000'9F DE 002E 129 MOVAL @#MMG$IMGHDRBUF,AP ; Make AP point to image hdr buffer
      6C 65 DO 0035 130 MOVL (R5), (AP) ; Move size of image name
      04 AC 0B AC DE 0038 131 MOVAL 8(AP), 4(AP) ; Set up pointer to image name
08 AC 04 B5 6C 28 003D 132 MOVCL (AP), @4(R5), 8(AP) ; Move image name
      03 DD 0043 133 PUSHL #3 ; Access mode to run down (user)
00000000'GF 01 FB 0045 134 CALLS #1, G^SYSS$RUNDWN ; Run down user mode
      00000000'GF 17 004C 135 JMP G^EXE$PROCIMGACT ; Activate image
      00000024 0052 136 ;
      0052 137 CDSIZE = .-20$ ; Size of code to move
      0052 138
      0052 139
      0052 140
0052 141 .END
```

ACTIMAGE  
Symbol table

- ACTIVATE NEXT IMAGE

C 8

15-SEP-1984 23:37:27 VAX/VMS Macro V04-00  
4-SEP-1984 23:02:12 [BOOTS.SRC]ACTIMAGE.MAR;1

Page 5  
(3)

BOOSACTIMAGE	00000000	RG	01
CDSIZE	= 00000024		
CTL\$AL STACK	*****	X	01
EXE\$PROCIMGACT	*****	X	01
IAC\$AL IMGACTBUF	*****	X	01
MMG\$IMGHDRBUF	*****	X	01
SYSS\$CMEXEC	*****	GX	01
SYSS\$RUNDWN	*****	X	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			
BOOSACTIMAGE	00000052 ( 82.)	01 ( 1.)	NOPIC USR	CON	REL	LCL	NOSHR	EXE	RD	NOWRT	NOVEC	BYTE			

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

Phase	Page faults	CPU Time	Elapsed Time
Initialization	17	00:00:00.10	00:00:01.33
Command processing	96	00:00:00.73	00:00:05.57
Pass 1	72	00:00:00.61	00:00:02.41
Symbol table sort	0	00:00:00.00	00:00:00.00
Pass 2	32	00:00:00.30	00:00:00.67
Symbol table output	2	00:00:00.01	00:00:00.01
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	220	00:00:01.78	00:00:10.02

The working set limit was 1200 pages.  
 1796 bytes (4 pages) of virtual memory were used to buffer the intermediate code.  
 There were 10 pages of symbol table space allocated to hold 8 non-local and 2 local symbols.  
 141 source lines were read in Pass 1, producing 11 object records in Pass 2.  
 2 pages of virtual memory were used to define 2 macros.

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

Macro library name	Macros defined
_\$255\$DUA28:[BOOTS.OBJ]BOOTS.MLB;1	0
_\$255\$DUA28:[SYS.OBJ]LIB.MLB;1	0
_\$255\$DUA28:[SYSLIB]STARLET.MLB;2	2
TOTALS (all libraries)	2

13 GETS were required to define 2 macros.

There were no errors, warnings or information messages.

MACRO/LIS=LIS\$:ACTIMAGE/OBJ=OBJ\$:ACTIMAGE MSRC\$:ACTIMAGE/UPDATE=(ENH\$:ACTIMAGE)+EXECMLS/LIB+LIB\$:BOOTS.MLB/LIB



0036 AH-BT13A-SE  
VAX/VMS V4.0

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