

FILEID**LIBINISHR

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(1) 49 HISTORY : Detailed Current Edit History
(2) 61 DECLARATIONS
(3) 120 LIB\$IMAGE_INISHR - Linkable image initialization dispatcher

0000 1 .TITLE LIB\$IMAGE_INISHR : Shareable image initialization
0000 2 .IDENT 'V04-00' : File: LIBINISHR.MAR
0000 3
0000 4 :
0000 5 :*****
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0000 24 :
0000 25 :
0000 26 :*****
0000 27 :
0000 28 :++
0000 29 : FACILITY: RUN-TIME UTILITY PROCEDURE LIBRARY
0000 30 :
0000 31 : ENVIRONMENT: User mode - not re-entrant.
0000 32 : Called only once per image activation.
0000 33 :
0000 34 :
0000 35 : ABSTRACT:
0000 36 :
0000 37 : LIB\$IMAGE_INISHR is a software architecture procedure which permits any
0000 38 : linkable (shareable) image to specify an initialization procedure
0000 39 : to be called before the image is activated.
0000 40 :
0000 41 : The initialization procedure can perform any once per-image activation
0000 42 : initialization which cannot be performed by the usual compile-time and
0000 43 : link-time static data initialization.
0000 44 :--
0000 45 :
0000 46 :
0000 47 : VERSION: 0
0000 48 :
0000 49 : .SBttl HISTORY : Detailed Current Edit History
0000 50 :
0000 51 : HISTORY:
0000 52 :
0000 53 : AUTHOR: Alan D. Eldridge 6-Apr-1984
0000 54 :
0000 55 : Stolen from LIB\$INITIALIZE
0000 56 :
0000 57 : MODIFIED BY:

LIB\$IMAGE_INISHR
V04-00

I 15
; Shareable image initialization 16-SEP-1984 00:10:43 VAX/VMS Macro V04-00
HISTORY ; Detailed Current Edit History 6-SEP-1984 11:08:06 [LIBRTL.SRC]LIBINISHR.MAR;1 Page 2 (1)
0000 58 :
0000 59 :

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0000 61 .SBTTL DECLARATIONS
0000 62
0000 63
0000 64 : INCLUDE FILES:
0000 65
0000 66
0000 67 : EXTERNAL SYMBOLS:
0000 68
0000 69 .DSABL GBL ; Force .EXTRN declarations for externals
0000 70
0000 71 : MACROS:
0000 72
0000 73
0000 74
0000 75 : PSECT DECLARATIONS:
0000 76
0000 77
0000 78 The following psects bracket the table within the linkable image. All
0000 79 table entries within the image should be made via a .ADDRESS -- f-xup
0000 80 occurs just before LIB\$IMAGE_INISHR (and hence the table entries) is
0000 81 called.
0000 82
0000 83
0000 84
00000000 85 .PSECT LIB\$IMAGE_INISHRZ NOPIC,USR,CON,REL,GBL,NOSHR,NOEXE,RD,NOWRT,LONG
0000 86
0000 87 INIT_TABLE_BEG: ; First entry in table
0000 88
0000 89
00000000 90 .PSECT LIB\$IMAGE_INISHR_ NOPIC,USR,CON,REL,GBL,NOSHR,NOEXE,RD,NOWRT,LONG
0000 91 ; Contribution from OT\$STARTUP
0000 92
0000 93
00000000 94 .PSECT LIB\$IMAGE_INISHR NOPIC,USR,CON,REL,GBL,NOSHR,NOEXE,RD,NOWRT,LONG
0000 95 ; Contributions from rest of library
0000 96 ; and users
0000 97
0000 98
00000000 99 .PSECT LIB\$IMAGE_INISHRS NOPIC,USR,CON,REL,GBL,NOSHR,NOEXE,RD,NOWRT,LONG
0000 100
00000000 101 INIT_TABLE_END: .LONG 0 ; End of initialization list
0004 102
0004 103 ; The code for this module
0004 104
0004 105
0004 106 : EQUATED SYMBOLS:
0004 107
0004 108
0004 109 : OWN STORAGE:
0004 110
0004 111
00000000 112 .PSECT _LIB\$DATA PIC,USR,CON,REL,LCL,NOSHR,NOEXE,RD,WRT
0000 113
00000004 114 DISP_PTR: ; OWN variable containing pointer to
0000 115 .BLKL 1 ; initialization dispatch table
0004 116
00000000 117 .PSECT _LIB\$CODE_NOSHR PIC,USR,CON,REL,LCL,SHR,EXE,RD,NOWRT

LIB\$IMAGE_INISHR
V04-00

: Shareable image initialization
DECLARATIONS

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16-SEP-1984 00:10:43 VAX/VMS Macro V04-00
6-SEP-1984 11:08:06 [LIBRTL.SRC]LIBINISHR.MAR;1 Page 6 (2)

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0000 120 .SBTTL LIB\$IMAGE_INISHR - Linkable image initialization dispatcher

0000 121
0000 122 :++
0000 123 : FUNCTIONAL DESCRIPTION:

0000 124 LIB\$IMAGE_INISHR is a library procedure for initializing linkable
0000 125 (shareable) image procedures and data at run-time which cannot be
0000 126 statically at compile-time or link-time.

0000 127 LIB\$IMAGE_INISHR is called before the main program if the GLOBAL symbol
0000 128 LIB\$IMAGE_INISHR is defined, or just after the image is merged via a
0000 129 merge/activate sequence.

0000 130 The image need only declare LIB\$IMAGE_INISHR as an EXTERNAL (the
0000 131 compiler generates EXTERNAL OTSSLINKAGE which generates the EXTERNAL
0000 132 LIB\$IMAGE_INISHR). LIB\$IMAGE_INISHR calls every entrypoint contributed
0000 133 to PSECT LIB\$INITIALIZE.

0000 134 Note:

0000 135 This procedure is not re-entrant. It can only be called
0000 136 once per image activation as currently coded.

0000 137 CALLING SEQUENCE:

0000 138 Status.wlc.v = LIB\$IMAGE_INISHR ()

0000 139 INPUT PARAMETERS:

0000 140 NONE

0000 141 IMPLICIT INPUTS:

0000 142 NONE

0000 143 OUTPUT PARAMETERS:

0000 144 NONE

0000 145 IMPLICIT OUTPUTS:

0000 146 NONE

0000 147 COMPLETION CODES:

0000 148 SSS_NORMAL

0000 149 SIDE EFFECTS:

0000 150 NONE

0000 151 --

0000 152 .ENTRY LIB\$IMAGE_INISHR, ^M<IV>; entry point and entry mask

0000 153 0002 154 : enable integer overflow
0000 155 MOVAL INIT_TABLE_BEG, - : initialize OWN storage (DISP_PTR)
0000 156 000D 157 : to first address of user/library

0000 157 000D 158 20\$: :

0000 159 000D 160 : Loop to scan table of user and library initialization procedure

0000 161 000D 162 starting addresses in PSECT LIB\$IMAGE_INISH...

0000 163 000D 164

0000 165 000D 166

LIB\$IMAGE_INISHR
V04-00

; Shareable image initialization M 15
LIB\$IMAGE_INISHR - Linkable image initia 16-SEP-1984 00:10:43 VAX/VMS Macro V04-00
6-SEP-1984 11:08:06 [LIBRTL.SRC]LIBINISHR.MAR;1 Page 6
(3)

50	00000000'FF	D0	000D	177	MOVL	@DISP_PTR, R0	; R0 = next user/library initialization		
		OE	13	0014	178	BEQL	50\$; procedure address	
		51	D4	0016	180	CLRL	R1	; zero means end of list	
	00000000'EF	60	6C	FA	0018	181	CALLG	(AP), (R0)	; Clear environment pointer
		04	C0	001B	182	ADDL	#4,DISP_PTR	; call next user/library init proc.	
				0022	183			; step dispatch pointer to next	
			E9	11	0022	184	BRB	20\$	init. proc. address
			50	01	7D	0024	185	50\$: MOVQ #1,R0	; loop
					0027	186			; Setup return status in case our
				04	0027	187	RET		caller needs it someday
				0028	188				; Done
				0028	189				
				0028	190	.END			; End of module LIB\$IMAGE_INISHR

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LIBSIMAGE INISHR

Symbol table

; Shareable image initialization

16-SEP-1984 00:10:43 VAX/VMS Macro V04-00
6-SEP-1984 11:08:06 [LIBRTL.SRC]LIBINISHR

Page 7
(3)

DISP_PTR	00000000	R	05
INIT_TABLE_BEG	00000000	R	01
INIT_TABLE_END	00000000	R	04
LIB\$IMAGE	00000000	RG	06

! 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\$IMAGE_INISHQZ	00000000	(0.)	01 (1.)	NOPIC	USR	CON	REL	GBL	NOSHR	NOEXE	RD	NOWRT	NOVEC	LONG					
LIB\$IMAGE_INISHQ	00000000	(0.)	02 (2.)	NOPIC	USR	CON	REL	GBL	NOSHR	NOEXE	RD	NOWRT	NOVEC	LONG					
LIB\$IMAGE_INISHR	00000000	(0.)	03 (3.)	NOPIC	USR	CON	REL	GBL	NOSHR	NOEXE	RD	NOWRT	NOVEC	LONG					
LIB\$IMAGE_INISHRS	00000004	(4.)	04 (4.)	NOPIC	USR	CON	REL	GBL	NOSHR	NOEXE	RD	NOWRT	NOVEC	LONG					
-LIB\$DATA	00000004	(4.)	05 (5.)	PIC	USR	CON	REL	LCL	NOSHR	NOEXE	RD	WRT	NOVEC	BYTE					
-LIB\$CODE_NOSHR	00000028	(40.)	06 (6.)	PIC	USR	CON	REL	LCL	SHR	EXE	RD	NOWRT	NOVEC	BYTE					

! Performance indicators !

Phase	Page faults	CPU Time	Elapsed Time
Initialization	30	00:00:00.04	00:00:00.86
Command processing	103	00:00:00.31	00:00:02.58
Pass 1	65	00:00:00.35	00:00:01.95
Symbol table sort	0	00:00:00.00	00:00:00.00
Pass 2	50	00:00:00.23	00:00:01.98
Symbol table output	2	00:00:00.01	00:00:00.01
Psect synopsis output	4	00:00:00.03	00:00:00.18
Cross-reference output	0	00:00:00.00	00:00:00.00
Assembler run totals	256	00:00:00.97	00:00:07.56

The working set limit was 900 pages.

1923 bytes (4 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 2 local symbols.
190 source lines were read in Pass 1, producing 20 object records in Pass 2.
0 pages of virtual memory were used to define 0 macros.

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

Macro Library name

Macros defined

~~\$2555 DUA28:[SYSLIB]STARLET-MR-2~~

0 GETS were required to define 0 macros.

There were no errors, warnings or information messages.

MACRO/ENABLE=SUPPRESSION/DISABLE=(GLOBAL,TRACEBACK)/LIS=L1SS:LIBINISHR/OBJ=OBJJS:LIBINISHR MSRCJS:LIBINISHR/UPDATE=(ENHS:LIBINISHR)

0207 AH-BT13A-SE
VAX/VMS V4.0

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LIBGETOPC
LIS

LIBINISHR
LIS

LIBENDIMG
LIS

LIBGETDVI
LIS

LIBGETMSG
LIS

LIBINDEX
LIS

LIBINSOHI
LIS

LIBGETJPI
LIS

LIBGETTAB
LIS