


```

LL      IIIIII  BBBB BBBB  AAAAAA  TTTTTTTTTT  TTTTTTTTTT  AAAAAA  CCCCCCCC  HH      HH
LL      IIIIII  BBBB BBBB  AAAAAA  TTTTTTTTTT  TTTTTTTTTT  AAAAAA  CCCCCCCC  HH      HH
LL      II      BB      BB  AA      AA  TT      TT  AA      AA  CC      CC  HH      HH
LL      II      BB      BB  AA      AA  TT      TT  AA      AA  CC      CC  HH      HH
LL      II      BB      BB  AA      AA  TT      TT  AA      AA  CC      CC  HH      HH
LL      II      BBBB BBBB  AA      AA  TT      TT  AA      AA  CC      CC  HHHHHHHHHH
LL      II      BBBB BBBB  AA      AA  TT      TT  AA      AA  CC      CC  HHHHHHHHHH
LL      II      BB      BB  AAAAAAAAAA  TT      TT  AAAAAAAAAA  CC      CC  HH      HH
LL      II      BB      BB  AAAAAAAAAA  TT      TT  AAAAAAAAAA  CC      CC  HH      HH
LL      II      BB      BB  AA      AA  TT      TT  AA      AA  CC      CC  HH      HH
LL      II      BB      BB  AA      AA  TT      TT  AA      AA  CC      CC  HH      HH
LLLLLLLLLLLL  IIIIII  BBBB BBBB  AA      AA  TT      TT  AA      AA  CCCCCCCC  HH      HH
LLLLLLLLLLLL  IIIIII  BBBB BBBB  AA      AA  TT      TT  AA      AA  CCCCCCCC  HH      HH

```



```

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

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```

0001 0 %TITLE 'LIB$ATTACH - Attach terminal to command subprocess'
0002 0 MODULE LIB$ATTACH (
0003 0 IDENT = '1-002' ! File: LIBATTACH.B32 Edit: MDL1002
0004 0 ) =
0005 1 BEGIN
0006 1
0007 1 *****
0008 1 *
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0026 1 *
0027 1 *
0028 1 *****
0029 1
0030 1
0031 1 ++
0032 1 FACILITY: General Utility Library
0033 1
0034 1 ABSTRACT:
0035 1
0036 1 This module contains LIB$ATTACH, a procedure to attach the
0037 1 user's terminal to a command subprocess
0038 1
0039 1 ENVIRONMENT: User mode - AST reentrant
0040 1
0041 1 AUTHOR: Steven B. Lionel, CREATION DATE: 15-Dec-1981
0042 1
0043 1 MODIFIED BY:
0044 1
0045 1 1-001 - Original. SBL 15-Dec-1981
0046 1 1-002 - Map CLIS_TRMMBX to LIB$_ATTREQREF. MDL 10-Sep-1984
0047 1 --
0048 1

```

```
: 50      0049 1 %SBTTL 'Declarations'
: 51      0050 1
: 52      0051 1 | SWITCHES:
: 53      0052 1 |
: 54      0053 1
: 55      0054 1 SWITCHES ADDRESSING_MODE (EXTERNAL = GENERAL, NONEXTERNAL = WORD_RELATIVE);
: 56      0055 1
: 57      0056 1 |
: 58      0057 1 | LINKAGES:
: 59      0058 1 |
: 60      0059 1 |     NONE
: 61      0060 1 |
: 62      0061 1 | TABLE OF CONTENTS:
: 63      0062 1 |
: 64      0063 1 |
: 65      0064 1 FORWARD ROUTINE
: 66      0065 1 LIB$ATTACH;                                ! Sample routine
: 67      0066 1
: 68      0067 1 |
: 69      0068 1 | INCLUDE FILES:
: 70      0069 1 |
: 71      0070 1
: 72      0071 1 LIBRARY 'RTLSTARLE';                          ! System symbols, typically from SYSS$LIBRARY:STARLET.L32
: 73      0072 1
: 74      0073 1 REQUIRE 'RTLIN:RTLPSECT';                      ! Define PSECT declarations macros
: 75      0168 1
: 76      0169 1 REQUIRE 'RTLML:CLIMSG';                        ! CLI$_ messages
: 77      0449 1
: 78      0450 1 |
: 79      0451 1 | MACROS:
: 80      0452 1 |
: 81      0453 1 |     NONE
: 82      0454 1 |
: 83      0455 1 | EQUATED SYMBOLS:
: 84      0456 1 |
: 85      0457 1 |     NONE
: 86      0458 1 |
: 87      0459 1 | FIELDS:
: 88      0460 1 |
: 89      0461 1 |     NONE
: 90      0462 1 |
: 91      0463 1 | PSECTS:
: 92      0464 1 |
: 93      0465 1 |
: 94      0466 1 DECLARE_PSECTS (LIB);                          ! Declare PSECTs for LIB$ facility
: 95      0467 1
: 96      0468 1 |
: 97      0469 1 | OWN STORAGE:
: 98      0470 1 |
: 99      0471 1 |     NONE
: 100     0472 1 |
: 101     0473 1 | EXTERNAL REFERENCES:
: 102     0474 1 |
: 103     0475 1 |
: 104     0476 1 EXTERNAL ROUTINE
: 105     0477 1 SYSS$CLI;                                ! Request CLI callback
: 106     0478 1
```

LIB\$ATTACH
1-002

LIB\$ATTACH - Attach terminal to command subproc
Declarations

M 11
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14-Sep-1984 12:38:25

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: 107
: 108
: 109
: 110
: 111
: 112

0479 1 EXTERNAL LITERAL
0480 1 LIB\$ INVARG,
0481 1 LIB\$ NOCLI,
0482 1 LIB\$ ATTREQREF,
0483 1 LIB\$ UNECLIERR;
0484 1

! Condition value symbols
! Invalid argument
! No CLI present
! Attach request refused
! Unexpected CLI error

```
114 0485 1 XSBTTL 'LIB$ATTACH - Attach terminal to command subprocess'
115 0486 1 GLOBAL ROUTINE LIB$ATTACH (
116 0487 1     PROCESS_ID: REF VECTOR [, LONG]      ! PID of process to attach to
117 0488 1 ) =
118 0489 1
119 0490 1 !++
120 0491 1 FUNCTIONAL DESCRIPTION:
121 0492 1
122 0493 1     LIB$ATTACH requests the calling process's Command Language Interpreter
123 0494 1     (CLI) to detach the terminal of the calling process and to reattach it
124 0495 1     to a different process. The calling process is put into hibernation.
125 0496 1     It provides the same function as the DCL ATTACH command.
126 0497 1
127 0498 1 CALLING SEQUENCE:
128 0499 1
129 0500 1     status.wlc.v = LIB$ATTACH (process_id.rlu.r)
130 0501 1
131 0502 1 FORMAL PARAMETERS:
132 0503 1
133 0504 1     PROCESS_ID
134 0505 1         The process identification of the process to be attached to,
135 0506 1         passed by reference. The specified process must be part of the
136 0507 1         caller's job.
137 0508 1
138 0509 1 IMPLICIT INPUTS:
139 0510 1
140 0511 1     NONE
141 0512 1
142 0513 1 IMPLICIT OUTPUTS:
143 0514 1
144 0515 1     NONE
145 0516 1
146 0517 1 COMPLETION STATUS:
147 0518 1
148 0519 1     $$$_NORMAL      Normal successful completion
149 0520 1     $$$_NONEXPR     Nonexistent process
150 0521 1     $$$_INVARG      Invalid argument
151 0522 1     $$$_NOCLI       No CLI to perform function
152 0523 1     $$$_ATTREQREF   Attach request refused
153 0524 1     $$$_UNECLIERR   Unexpected CLI error
154 0525 1
155 0526 1 SIDE EFFECTS:
156 0527 1
157 0528 1     The caller's process is put into hibernation and the user's
158 0529 1     terminal is attached to the designated subprocess. When the
159 0530 1     user reattaches to the calling process, this procedure will return.
160 0531 1
161 0532 1 --
162 0533 1
163 0534 2 BEGIN
164 0535 2
165 0536 2 BUILTIN
166 0537 2     NULLPARAMETER;
167 0538 2
168 0539 2 LOCAL
169 0540 2     CLI_DESC: BLOCK [CLI$K_SVRDESC, BYTE], ! CLI service descriptor
170 0541 2     RETURN_STATUS: BLOCK [4, BYTE];
```

LIB\$ATTACH
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LIB\$ATTACH - Attach terminal to command subproc
LIB\$ATTACH - Attach terminal to command subproc

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```

171 0542 2
172 0543 2
173 0544 2      !+
174 0545 2      !- Check for a valid argument.
175 0546 2
176 0547 2      IF NULLPARAMETER (1)
177 0548 2      THEN
178 0549 2          RETURN LIB$_INVARG;
179 0550 2          ! Invalid argument
180 0551 2
181 0552 2      !+
182 0553 2      !- Fill in request descriptor
183 0554 2
184 0555 2      CH$FILL (0, CLISK_SRVDESC, CLI_DESC);
185 0556 2      CLI_DESC [CLISB_RQTYPE] = CLISK_CLISERV;
186 0557 2      CLI_DESC [CLISW_SERVCOD] = CLISK_ATTACH;
187 0558 2      CLI_DESC [CLISL_PID] = .PROCESS_ID [0];
188 0559 2
189 0560 2      !+
190 0561 2      !- Call CLI with request.
191 0562 2
192 0563 2
193 0564 2      RETURN_STATUS = SYSS$CLI (CLI_DESC);
194 0565 2
195 0566 2      !+
196 0567 2      !- Adjust error return status, if any.
197 0568 2
198 0569 2
199 0570 2      IF NOT .RETURN_STATUS AND (.RETURN_STATUS [ST$V_FAC_NO] EQL CLIS_FACILITY)
200 0571 2      THEN
201 0572 2          RETURN_STATUS = (
202 0573 2              SELECTONE .RETURN_STATUS OF
203 0574 2                  SET
204 0575 2                      [CLIS_INVREQTYP] : LIB$_NOCLI;
205 0576 2                      [CLIS_REFUSED, CLIS_TRMMBX] :
206 0577 2                          LIB$_ATTREQREF;
207 0578 2                      [OTHERWISE] : LIB$_UNECLIERR;
208 0579 2                      TES);
209 0580 2
210 0581 2      RETURN .RETURN_STATUS;
211 0582 2
212 0583 1      END;

```

! End of routine LIB\$ATTACH

.TITLE LIB\$ATTACH LIB\$ATTACH - Attach terminal to comm
and subproc

.IDENT \1-002\

.EXTRN SYSS\$CLI, LIB\$_INVARG
.EXTRN LIB\$_NOCLI, LIB\$_ATTREQREF
.EXTRN LIB\$_UNECLIERR

.PSECT _LIB\$CODE, NOWRT, SHR, PIC, 2

.ENTRY LIB\$ATTACH, Save R2, R3, R4, R5
MOVAB -84(SP), SP
TSTB (AP)

SE AC 003C 00000
AE 9E 00002
6C 95 00006

: 0486
:
: 0547

LIB\$ATTACH
1-002

LIB\$ATTACH - Attach terminal to command subproc
LIB\$ATTACH - Attach terminal to command subproc

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0054	8F	00	04	05	13	00008	BEQL	1\$	:	
				AC	D5	0000A	TSTL	4(AP)	:	
				08	12	0000D	BNEQ	2\$	:	
		50	00000000G	8F	D0	0000F	MOVL	#LIB\$_INVARG, R0	:	0549
					04	00016	RET		:	
		6E		00	2C	00017	MOVC5	#0, (SP), #0, #84, CLI_DESC	:	0555
				6E		0001E			:	
		01	6E	05	90	0001F	MOVB	#5, CLI_DESC	:	0556
		04	AE	10	B0	00022	MOVW	#16, CLI_DESC+1	:	0557
			AE	04	BC	00026	MOVL	@PROCESS_ID, CLI_DESC+4	:	0558
				5E	DD	0002B	PUSHL	SP	:	0564
		00000000G	00	01	FB	0002D	CALLS	#1, SYSSCLI	:	
			39	50	E8	00034	BLBS	RETURN_STATUS, 6\$	:	0570
03		50	0C	10	ED	00037	CMPZV	#16, #T2, RETURN_STATUS, #3	:	
				32	12	0003C	BNEQ	6\$	:	
		00038822	8F	50	D1	0003E	CML	RETURN_STATUS, #231458	:	0575
				08	12	00045	BNEQ	3\$	:	
		50	00000000G	8F	D0	00047	MOVL	#LIB\$_NOCLI, RETURN_STATUS	:	
					04	0004E	RET		:	
		000388C2	8F	50	D1	0004F	CML	RETURN_STATUS, #231618	:	0576
				09	13	00056	BEQL	4\$	:	
		000388F2	8F	50	D1	00058	CML	RETURN_STATUS, #231666	:	
				08	12	0005F	BNEQ	5\$	:	
		50	00000000G	8F	D0	00061	MOVL	#LIB\$_ATTREQREF, RETURN_STATUS	:	
					04	00068	RET		:	
		50	00000000G	8F	D0	00069	MOVL	#LIB\$_UNECLIERR, RETURN_STATUS	:	0578
					04	00070	RET		:	0583

; Routine Size: 113 bytes, Routine Base: _LIB\$CODE + 0000

; 213 0584 1 !<BLF/PAGE>

LIB
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LIB\$ATTACH
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LIB\$ATTACH - Attach terminal to command subproc
LIB\$ATTACH - Attach terminal to command subproc

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: 215
: 216
: 217

0585 1 END
0586 1
0587 0 ELUDOM

! End of module LIB\$ATTACH

PSECT SUMMARY

Name Bytes Attributes

_LIB\$CODE 113 NOVEC,NOWRT, RD , EXE, SHR, LCL, REL, CON, PIC,ALIGN(2)

Library Statistics

File	----- Total	Symbols Loaded	----- Percent	Pages Mapped	Processing Time
_\$255\$DUA28:[SYSLIB]STARLET.L32;1	9776	21	0	581	00:00.7

COMMAND QUALIFIERS

BLISS/CHECK=(FIELD,INITIAL,OPTIMIZE)/NOTRACE/LIS=LIS\$:LIBATTACH/OBJ=OBJ\$:LIBATTACH MSRC\$:LIBATTACH/UPDATE=(ENH\$:LIBATTACH)

: Size: 113 code + 0 data bytes
: Run Time: 00:09.1
: Elapsed Time: 00:39.8
: Lines/CPU Min: 3887
: Lexemes/CPU-Min: 98523
: Memory Used: 92 pages
: Compilation Complete

0203 AH-BT13A-SE
VAX/VMS V4.0

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