


```

GGGGGGGG  TTTTTTTTTT  LL  CCCCCCCC  AAAAAA  TTTTTTTTTT
GGGGGGGG  TTTTTTTTTT  LL  CCCCCCCC  AAAAAA  TTTTTTTTTT
GG         TT          LL  CC          AA      AA      TT
GG         TT          LL  CC          AA      AA      TT
GG         TT          LL  CC          AA      AA      TT
GG         TT          LL  CC          AA      AA      TT
GG         TT          LL  CC          AA      AA      TT
GG         TT          LL  CC          AA      AA      TT
GGGGGG   TT          LL  CC          AAAAAAAAAA  TT
GGGGGG   TT          LL  CC          AAAAAAAAAA  TT
GG   GG   TT          LL  CC          AA      AA      TT
GG   GG   TT          LL  CC          AA      AA      TT
GGGGGG   TT          LLLLLLLLLL  CCCCCCCC  AA      AA      TT
GGGGGG   TT          LLLLLLLLLL  CCCCCCCC  AA      AA      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
LLLLLLLLLL IIIIII   SSSSSSSS
LLLLLLLLLL IIIIII   SSSSSSSS
```

```

1 0001 0 MODULE GTLCAT (
2 0002 0
3 0003 0     LANGUAGE (BLISS32),
4 0004 0     IDENT = 'V04-000'
5 0005 1 BEGIN
6 0006 1
7 0007 1
8 0008 1 *****
9 0009 1 *
10 0010 1 *  COPYRIGHT (c) 1978, 1980, 1982, 1984 BY
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27 0027 1 *
28 0028 1 *
29 0029 1 *****
30 0030 1
31 0031 1 ++
32 0032 1
33 0033 1 FACILITY: F11ACP Structure Level 2
34 0034 1
35 0035 1 ABSTRACT:
36 0036 1
37 0037 1     This routine extracts the compatibility mode placement control data
38 0038 1     from the attribute list and stores it in the standard place in the FIB.
39 0039 1
40 0040 1 ENVIRONMENT:
41 0041 1
42 0042 1     STARLET operating system, including privileged system services
43 0043 1     and internal exec routines.
44 0044 1
45 0045 1 --
46 0046 1
47 0047 1
48 0048 1 AUTHOR: Andrew C. Goldstein, CREATION DATE: 8-Dec-1978 15:52
49 0049 1
50 0050 1 MODIFIED BY:
51 0051 1
52 0052 1     V03-002 LMP0256           L. Mark Pilant,           6-Jun-1984 14:24
53 0053 1     Make sure the use of the attribute count from the IRP is
54 0054 1     zero biased.
55 0055 1
56 0056 1     V03-001 CDS0001         Christian D. Saether   30-Dec-1983
57 0057 1     Use L_NORM linkage and BIND_COMMON macro.
    
```

GTL CAT
V04-000

F 15
16-Sep-1984 00:36:06
14-Sep-1984 12:30:31

VAX-11 BLISS-32 V4.0-742
DISK\$VMMASTER:[F11X.SRC]GTL CAT.B32;1 Page 2 (1)

```
.. 58      0058 1  !  
.. 59      0059 1  !**  
.. 60      0060 1  
.. 61      0061 1  
.. 62      0062 1 LIBRARY 'SYSSLIBRARY:LIB.L32';  
.. 63      0063 1 REQUIRE 'SRC$:FCPDEF.B32';
```

IN
VO

.....

```

65 1054 1 GLOBAL ROUTINE GET_LOC_ATTR (ABD, FIB) : L_NORM NOVALUE =
66 1055 1
67 1056 1 !++
68 1057 1
69 1058 1 FUNCTIONAL DESCRIPTION:
70 1059 1
71 1060 1 This routine extracts the compatibility mode placement control data
72 1061 1 from the attribute list and stores it in the standard format in the FIB.
73 1062 1
74 1063 1
75 1064 1 CALLING SEQUENCE:
76 1065 1 GET_LOC_ATTR (ARG1, ARG2)
77 1066 1
78 1067 1 INPUT PARAMETERS:
79 1068 1 ARG1: address of buffer descriptor vector
80 1069 1
81 1070 1 IMPLICIT INPUTS:
82 1071 1 IO_PACKET: address of I/O packet
83 1072 1
84 1073 1 OUTPUT PARAMETERS:
85 1074 1 ARG2: address of user FIB
86 1075 1
87 1076 1 IMPLICIT OUTPUTS:
88 1077 1 NONE
89 1078 1
90 1079 1 ROUTINE VALUE:
91 1080 1 NONE
92 1081 1
93 1082 1 SIDE EFFECTS:
94 1083 1 NONE
95 1084 1
96 1085 1 !--
97 1086 1
98 1087 2 BEGIN
99 1088 2
100 1089 2 MAP
101 1090 2 ABD : REF BBLOCKVECTOR [,ABD$C_LENGTH],
102 1091 2 : descriptor vector arg
103 1092 2 FIB : REF BBLOCK; : FIB arg
104 1093 2
105 1094 2 ! Format of compatibility mode attribute data.
106 1095 2 !
107 1096 2
108 1097 2 MACRO
109 1098 2 LOC_CODE = 0, 0, 8, 0%, ! attribute code byte
110 1099 2 LOC_CTRL = 1, 0, 8, 0%, ! placement control bits
111 1100 2 LOC_VBN = 1, 0, 1, 0%, ! VBN format
112 1101 2 LOC_APPROX = 1, 1, 1, 0%, ! use approximate placement
113 1102 2 LOC_LBNx = 1, 2, 1, 0%, ! LBN format
114 1103 2 LOC_CYL = 1, 3, 1, 0%, ! cylinder format
115 1104 2 LOC_RVNx = 2, 0, 8, 0%, ! relative volume number
116 1105 2 LOC_ADDR = 3, 0, 32, 0%, ! address value
117 1106 2
118 1107 2 ! Format conversion table. This table is indexed into by the control bits.
119 1108 2 !
120 1109 2
121 1110 2 BIND

```

```

122      1111 2          ALIGN_TABLE      = UPLIT BYTE      (0
123      1112 2          FIBSC_VBN,
124      1113 2          0
125      1114 2          FIBSC_VBN,
126      1115 2          FIBSC_LBN,
127      1116 2          FIBSC_VBN,
128      1117 2          FIBSC_LBN,
129      1118 2          FIBSC_VBN,
130      1119 2          FIBSC_CYL,
131      1120 2          0
132      1121 2          FIBSC_CYL,
133      1122 2          0
134      1123 2          FIBSC_CYL,
135      1124 2          0
136      1125 2          FIBSC_CYL
137      1126 2          ) : VECTOR [,BYTE];
138
139      1128 2 LOCAL
140      1129 2          P                      : REF BBLOCK;  ! pointer to attribute text
141      1130 2
142      1131 2 BIND_COMMON;
143      1132 2
144      1133 2 ! Loop, scanning the attribute list entries for the placement attribute code.
145      1134 2 ! when found, reformat the data into the FIB.
146      1135 2 !
147      1136 2 !
148      1137 2 INCR J FROM ABDSC_ATTRIB TO .IO_PACKET[IRPSW_BCNT]-1
149      1138 2 DO
150      1139 2 BEGIN
151      1140 2 P = .ABDC[J, ABD$W_TEXT] + ABDC[J, ABD$W_TEXT];
152      1141 2 IF .P[LOC_CODE] EQ[ ATRSC_ALCONTROL
153      1142 2 THEN
154      1143 2 BEGIN
155      1144 2 IF .ABDC[J, ABD$W_COUNT] LSSU 6
156      1145 2 THEN ERR_EXIT (SS$_BADPARAM);
157      1146 2
158      1147 2 IF .P[LOC_CTRL] GTRU 14
159      1148 2 THEN ERR_EXIT (SS$_BADPARAM);
160      1149 2 FIB[FIB$B_ALALIGN] = .ALIGN_TABLE[.P[LOC_CTRL]];
161      1150 2 IF .FIB[FIB$B_ALALIGN] EQL 0
162      1151 2 THEN ERR_EXIT (SS$_BADPARAM);
163      1152 2
164      1153 2 FIB[FIB$W_LOC_RVN] = .P[LOC_RVNx];
165      1154 2 FIB[FIB$L_LOC_ADDR] = ROT (.P[LOC_ADDR], 16);
166      1155 2
167      1156 2 IF .P[LOC_CYL]
168      1157 2 THEN FIB[FIB$V_ONCYL] = 1;
169      1158 2 IF NOT .P[LOC_APPROX]
170      1159 2 THEN FIB[FIB$V_EXACT] = 1;
171      1160 2 RETURN;
172      1161 2 END;
173      1162 2
174      1163 2 END;                      ! end of attribute scan loop
175      1164 2
176      1165 1 END;                      ! end of routine GET_LOC_ATTR

```

.TITL GTLCAT
.IDENT \V04-000\

.PSECT \$CODE\$,NOWRT,2

01 00 01 00 01 00 01 03 02 03 02 03 00 03 00 0000 P.AAA: .BYTE J, 3, 0, 3, 2, 3, 2, 3, 1, 0, 1, 0, 1, 0, - ;
1

ALIGN_TABLE= P.AAA

				001C 00000	.ENTRY GET LOC ATTR, Save R2,R3,R4	: 1054
50	90	AA	D0	00002	MOVL -112(BASE), R0	: 1137
54	32	A0	3C	00006	MOVZWL 50(R0), R4	
53		04	D0	0000A	MOVL #4, J	
		64	11	0000D	BRB 5\$	
50	04	BC43	7E	0000F 1\$:	MOVAQ @ABD[J], R0	: 1140
51		60	3C	00014	MOVZWL (R0), P	
51		50	C0	00017	ADJL2 R0, P	
0E		61	91	0001A	CMPB (P), #14	: 1141
		54	12	0001D	BNEQ 5\$	
06	02	A0	B1	0001F	CMPW 2(R0), #6	: 1144
		1D	1F	00023	BLSSU 2\$	
0E	01	A1	91	00025	CMPB 1(P), #14	: 1147
		17	1A	00029	BGTRU 2\$	
52	08	AC	D0	0002B	MOVL FIB, R2	: 1149
50	01	A1	9A	0002F	MOVZBL 1(P), R0	
21	A2	BA AF40	90	00033	MOVB ALIGN_TABLE[R0], 33(R2)	
50	08	AC	D0	00039	MOVL FIB, R0	: 1150
	21	A0	95	0003D	TSTB 33(R0)	
		03	12	00040	BNEQ 3\$	
		14	BF	00042 2\$:	CHMU #20	: 1151
		04	00	00044	RET	
50	08	AC	D0	00045 3\$:	MOVL FIB, R0	: 1153
26	A0	02	A1	9B	MOVZBW 2(P), 38(R0)	
50	08	AC	D0	0004E	MOVL FIB, R0	: 1154
28	A0	03	A1	10	ROTL #16, 3(P), 40(R0)	
08	01	A1	03	E1	BBC #3, 1(P), 4\$: 1156
50	08	AC	D0	0005D	MOVL FIB, R0	: 1157
20	A0	02	88	00061	BISB2 #2, 32(R0)	
0D	01	A1	01	E0	BBS #1, 1(P), 6\$: 1158
50	08	AC	D0	0006A	MOVL FIB, R0	: 1159
20	A0	01	88	0006E	BISB2 #1, 32(R0)	
		04	00	00072	RET	: 1163
98	53	54	F2	00073 5\$:	AOBLSS R4, J, 1\$: 1137
		04	00	00077 6\$:	RET	: 1165

: Routine Size: 120 bytes, Routine Base: \$CODE\$ + 000F

: 177 1166 1
: 178 1167 1 END
: 179 1168 0 ELUDOM

PSECT SUMMARY

```
:
: Name Bytes Attributes
: $CODE$ 135 NOVEC,NOWRT, RD , EXE,NOSHR, LCL, REL, CON,NOPIC,ALIGN(2)
```

Library Statistics

```
:
: File Total Symbols Loaded Percent Pages Mapped Processing Time
: _$255$DUA28:[SYSLIB]LIB.L32;1 18619 32 0 1000 00:01.9
```

COMMAND QUALIFIERS

```
:
: BLISS/CHECK=(FIELD,INITIAL,OPTIMIZE)/LIS=LIS$:GTLCAT/OBJ=OBJ$:GTLCAT MSRCS$:GTLCAT/UPDATE=(ENH$:GTLCAT)
```

```
: Size: 120 code + 15 data bytes
: Run Time: 00:16.5
: Elapsed Time: 00:33.9
: Lines/CPU Min: 4247
: Lexemes/CPU-Min: 53018
: Memory Used: 209 pages
: Compilation Complete
```


