

[illegible]

```
RRRRRRRR      EEEEEEEEEEE  MM      MM      000000      VV      VV      EEEEEEEEEEE
RRRRRRRR      EEEEEEEEEEE  MM      MM      000000      VV      VV      EEEEEEEEEEE
RR      RR      EE      EE      MMMM      MMMM      00      00      VV      VV      EE
RR      RR      EE      EE      MMMM      MMMM      00      00      VV      VV      EE
RR      RR      EE      EE      MM      MM      00      00      VV      VV      EE
RRRRRRRR      EEEEEEEEEEE  MM      MM      00      00      VV      VV      EEEEEEEEEEE
RRRRRRRR      EEEEEEEEEEE  MM      MM      00      00      VV      VV      EEEEEEEEEEE
RR      RR      EE      EE      MM      MM      00      00      VV      VV      EE
RR      RR      EE      EE      MM      MM      00      00      VV      VV      EE
RR      RR      EE      EE      MM      MM      00      00      VV      VV      EE
RR      RR      EE      EE      MM      MM      00      00      VV      VV      EE
RR      RR      EEEEEEEEEEE  MM      MM      000000      VV      VV      EEEEEEEEEEE
RR      RR      EEEEEEEEEEE  MM      MM      000000      VV      VV      EEEEEEEEEEE
```

```
LL      IIIIII      SSSSSSSSS
LL      IIIIII      SSSSSSSSS
LL      II      SS
LL      II      SS
LL      II      SS
LL      II      SS
LL      II      SSSSSSS
LL      II      SSSSSSS
LL      II      SS
LL      II      SS
LL      II      SS
LL      II      SS
LLLLLLLLLLLL  IIIIII      SSSSSSSSS
LLLLLLLLLLLL  IIIIII      SSSSSSSSS
```

RE
Sy
AC
AQ
BI
CA
CH
CU
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IR
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MV
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QU
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PS
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\$A
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41
Th
23
12

REMOVE

M 9
16-Sep-1984 01:02:17
14-Sep-1984 12:30:43VAX-11 Bliss-32 V4.0-742
DISK\$VMSMASTER:[F11X.SRC]REMOVE.B32;1 Page 1 (1)

```
1 0001 0 MODULE REMOVE (  
2 0002 0 LANGUAGE (BLISS32),  
3 0003 0 IDENT = 'V04-000',  
4 0004 0 ) =  
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 removes a directory entry.  
38 0038 1  
39 0039 1 ENVIRONMENT:  
40 0040 1  
41 0041 1 STARLET operating system, including privileged system services  
42 0042 1 and internal exec routines.  
43 0043 1  
44 0044 1 --  
45 0045 1  
46 0046 1  
47 0047 1 AUTHOR: Andrew C. Goldstein, CREATION DATE: 15-Jan-1978 20:19  
48 0048 1  
49 0049 1 MODIFIED BY:  
50 0050 1  
51 0051 1 V03-001 CDS0001 Christian D. Saether 30-Dec-1983  
52 0052 1 Use L_NORM linkage and BIND_COMMON macro.  
53 0053 1  
54 0054 1 V02-007 ACG0259 Andrew C. Goldstein, 26-Jan-1982 19:14  
55 0055 1 Add mode to keep a name with no versions for autopurge;  
56 0056 1 remove updating of directory index.  
57 0057 1
```

REMOVE
V04-000

N 9

16-Sep-1984 01:02:17
14-Sep-1984 12:30:43

VAX-11 Bliss-32 V4.0-742

DISK\$VMSMASTER:[F11X.SRC]REMOVE.B32;1 Page (1) 2

```

: 58      0058 1  | V02-006 ACG0208      Andrew C. Goldstein, 12-Nov-1981 11:24
: 59      0059 1  |      Change declaration of directory context
: 60      0060 1  |
: 61      0061 1  | V02-005 ACG0167      Andrew C. Goldstein, 16-Apr-1980 19:27
: 62      0062 1  |      Previous revision history moved to F11B.REV
: 63      0063 1  |      **
: 64      0064 1  |
: 65      0065 1  |
: 66      0066 1  | LIBRARY 'SYS$LIBRARY:LIB.L32';
: 67      0067 1  | REQUIRE 'SRC$FCPDEF.B32';
```



```

69 1058 1 GLOBAL ROUTINE REMOVE (KEEP_NAME) : L_NORM NOVALUE =
70 1059 1
71 1060 1 ++
72 1061 1
73 1062 1 FUNCTIONAL DESCRIPTION:
74 1063 1
75 1064 1     This routine removes a directory entry.
76 1065 1
77 1066 1
78 1067 1 CALLING SEQUENCE:
79 1068 1     REMOVE (ARG1)
80 1069 1
81 1070 1 INPUT PARAMETERS:
82 1071 1     ARG1: 0 to remove name if all versions are gone
83 1072 1           1 to keep a name with no versions
84 1073 1
85 1074 1 IMPLICIT INPUTS:
86 1075 1     DIR_VBN: VBN of current directory block
87 1076 1     DIR_BUFFER: address of directory block buffer
88 1077 1     DIR_ENTRY: address of directory record found
89 1078 1     DIR_VERSION: address of directory version entry
90 1079 1
91 1080 1 OUTPUT PARAMETERS:
92 1081 1     NONE
93 1082 1
94 1083 1 IMPLICIT OUTPUTS:
95 1084 1     DIR_END: address of end of directory data
96 1085 1     PREV_NAME: file name of directory entry
97 1086 1     PREV_VERSION: version number of directory entry
98 1087 1
99 1088 1 ROUTINE VALUE:
100 1089 1     NONE
101 1090 1
102 1091 1 SIDE EFFECTS:
103 1092 1     directory entry removed, block(s) written
104 1093 1
105 1094 1 --
106 1095 1
107 1096 2 BEGIN
108 1097 2
109 1098 2 LOCAL
110 1099 2     P, RECORD_SIZE;           ! character scan pointer
111 1100 2                               ! size of directory record
112 1101 2
113 1102 2 BIND_COMMON;
114 1103 2
115 1104 2 DIR_CONTEXT_DEF;
116 1105 2
117 1106 2 EXTERNAL ROUTINE
118 1107 2     NEXT_REC      : L_NORM,      ! get next directory record
119 1108 2     MARK_DIRTY   : L_NORM,      ! mark buffer for write back
120 1109 2     SHUFFLE_DIR  : L_NORM,      ! compress directory
121 1110 2     UPDATE_DIRSEQ : L_NORM ADDRESSING_MODE (GENERAL);
122 1111 2                               ! update directory sequence count
123 1112 2
124 1113 2
125 1114 2 ! First scan to the end of the directory records and compute the size of the

```



```
1115 2 ! current record. Also save name and version for the cleanup.
1116 2 !
1117 2
1118 2 DIR_END = .DIR_ENTRY;
1119 2 UNTIL .DIR_END[DIR$W_SIZE] EQL 65535
1120 2 DO DIR_END = NEXT_REC (.DIR_END);
1121 2 DIR_END = .DIR_END + 2;
1122 2
1123 2 RECORD_SIZE = .DIR_ENTRY[DIR$W_SIZE] + 2;
1124 2 IF NOT .CLEANUP_FLAGS[CLF_CLEANUP]
1125 2 THEN
1126 2 BEGIN
1127 2 PREV_VERSION = .DIR_VERSION[DIR$W_VERSION];
1128 2 CH$MOVE (.DIR_ENTRY[DIR$B_NAMECOUNT]+1, DIR_ENTRY[DIR$B_NAMECOUNT], PREV_NAME);
1129 2 CLEANUP_FLAGS[CLF_REENTER] = 1;
1130 2 END;
1131 2
1132 2 ! Determine if the entry being removed is of the form xxx.DIR;1. If so, bump
1133 2 ! the directory sequence count in the UCB to invalidate RMS caches.
1134 2 !
1135 2
1136 2 IF .DIR_VERSION[DIR$W_VERSION] EQL 1 ! simple tests first
1137 2 THEN
1138 2 BEGIN
1139 2 P = CH$FIND_SUB (.DIR_ENTRY[DIR$B_NAMECOUNT], DIR_ENTRY[DIR$T_NAME],
1140 2 4, UPLIT BYTE ('.DIR'));
1141 2 IF NOT CH$FAIL (.P)
1142 2 AND .P + 4 EQL DIR_ENTRY[DIR$T_NAME] + .DIR_ENTRY[DIR$B_NAMECOUNT]
1143 2 THEN KERNEL_CALL (UPDATE_DIRSEQ);
1144 2 END;
1145 2
1146 2 ! Determine if the record contains one or more versions. If there are
1147 2 ! more than one or if we are to keep the name, we just squish out the
1148 2 ! indicated version.
1149 2 !
1150 2
1151 2 IF .KEEP_NAME
1152 2 OR .RECORD_SIZE GTRU (.DIR_ENTRY[DIR$B_NAMECOUNT]
1153 2 + DIR$C_LENGTH + DIR$C_VERSION + 1 AND NOT 1)
1154 2 THEN
1155 2 BEGIN
1156 2 CH$COPY (.DIR_END - .DIR_VERSION - DIR$C_VERSION, .DIR_VERSION + DIR$C_VERSION,
1157 2 0, .DIR_END - .DIR_VERSION, .DIR_VERSION);
1158 2 DIR_ENTRY[DIR$W_SIZE] = .DIR_ENTRY[DIR$W_SIZE] - DIR$C_VERSION;
1159 2 END
1160 2
1161 2 ! If the record contains only one version, we remove the entire record.
1162 2 !
1163 2
1164 2 ELSE
1165 2 BEGIN
1166 2 CH$COPY (.DIR_END - .DIR_ENTRY - .RECORD_SIZE, .DIR_ENTRY + .RECORD_SIZE,
1167 2 0, .DIR_END - .DIR_ENTRY, .DIR_ENTRY);
1168 2 DIR_VERSION = 0;
1169 2 END;
1170 2
1171 2 ! If this leaves us with an empty block, squish it out. Otherwise, just
```


REMOVE
V04-000

```

: 183      1172 2 ! write it. But don't squish out the last block of an empty directory.
: 184      1173 2 !
: 185      1174 2 !
: 186      1175 2 IF .DIR_BUFFER[DIR$W_SIZE] EQL 65535
: 187      1176 2 AND .DIR_FCB[FCB$E_FBLK] GTRU 1
: 188      1177 2 THEN
: 189      1178 2     SHUFFLE_DIR (-1)
: 190      1179 2 ELSE
: 191      1180 2     MARK_DIRTY (.DIR_BUFFER);
: 192      1181 2
: 193      1182 1 END;

```

! end of routine REMOVE

				.TITLE	REMOVE		
				.IDENT	\V04-000\		
				.PSECT	\$CODE\$,NOWRT,2		
52 49 44 2E 00000 P.AAA:				.ASCII	\.DIR\	:	
				.EXTRN	NEXT_REC, MARK_DIRTY		
				.EXTRN	SHUFFLE_DIR, UPDATE_DIRSEQ		
				.ENTRY	REMOVE, Save R2,R3,R4,R5,R6,R7,R8,R9	: 1058	
		57	00DC	CA	9E 00002	MOVAB 220(BASE), R7	: 1100
		56	08	A7	9E 00007	MOVAB 8(R7), R6	: 1102
		58	10	A7	9E 0000B	MOVAB 16(R7), R8	
		68		66	D0 0000F	MOVL (R6), (R8)	: 1118
FFFF		8F	00	B8	B1 00012	CMPW @0(R8), #65535	: 1119
				0C	13 00018	BEQL 2\$	
				68	DD 0001A	PUSHL (R8)	: 1120
0000G		CF		01	FB 0001C	CALLS #1, NEXT_REC	
		68		50	D0 00021	MOVL R0, (R8)	
				EC	11 00024	BRB 1\$	
		68		02	C0 00026	ADDL2 #2, (R8)	: 1121
		59	00	B6	3C 00029	MOVZWL @0(R6), RECORD_SIZE	: 1123
		59		02	C0 0002D	ADDL2 #2, RECORD_SIZE	
1B		6A		09	E0 00030	BBS #9, (BASE)-3\$	: 1124
	0152	CA	0C	B7	32 00034	CVTWL @12(R7), 338(BASE)	: 1127
		50		66	D0 0003A	MOVL (R6), R0	: 1128
		51	05	A0	9A 0003D	MOVZBL 5(R0), R1	
				51	D6 00041	INCL R1	
0156	CA	05	A0	51	28 00043	MOVCL3 R1, 5(R0), 342(BASE)	
		02	AA	80	8F 88 0004A	BISB2 #128, 2(BASE)	: 1129
		01	0C	B7	B1 0004F	CMPW @12(R7), #1	: 1136
				33	12 00053	BNEQ 5\$	
		50		66	D0 00055	MOVL (R6), R0	: 1139
		51	05	A0	9A 00058	MOVZBL 5(R0), R1	
06	A0	51	9C	AF	04 39 0005C	MATCHC #4, P.AAA, R1, 6(R0)	: 1140
				03	13 00063	BEQL 4\$	
		53		04	D0 00065	MOVL #4, R3	
		53		04	C2 00068	SUBL2 #4, R3	
				1B	13 0006B	BEQL 5\$	: 1141
		53		04	C0 0006D	ADDL2 #4, R3	: 1142
		51		66	D0 00070	MOVL (R6), R1	
		50	05	A1	9A 00073	MOVZBL 5(R1), R0	
		50	06	A140	9E 00077	MOVAB 6(R1)[R0], R0	

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2:1 (2)

Library Statistics

REMOVE
V04-000

F 10
16-Sep-1984 01:02:17
14-Sep-1984 12:30:43

VAX-11 Bliss-32 V4.0-742
DISK\$VMSMASTER:[F11X.SRC]REMOVE.B32;1 Page 7 (2)

File	----- Total	Symbols Loaded	----- Percent	Pages Mapped	Processing Time
;\$255\$DUA28:[SYSLIB]LIB.L32;1	18619	24	0	1000	00:02.0

COMMAND QUALIFIERS

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

; Size: 240 code + 4 data bytes
; Run Time: 00:18.0
; Elapsed Time: 01:07.2
; Lines/CPU Min: 3956
; Lexemes/CPU-Min: 49255
; Memory Used: 227 pages
; Compilation Complete

0172 AH-BT13A-SE
VAX/VMS V4.0

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