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LL      IIIIII  BBBB BBBB  CCCCCCCC  RRRRRRRR  EEEEEEEEE  DDDDDDDD  IIIIII  RRRRRRRR
LL      IIIIII  BBBB BBBB  CCCCCCCC  RRRRRRRR  EEEEEEEEE  DDDDDDDD  IIIIII  RRRRRRRR
LL      II      BB      CC      RR      EE      DD      II      RR      RR
LL      II      BB      CC      RR      EE      DD      II      RR      RR
LL      II      BB      CC      RR      EE      DD      II      RR      RR
LL      II      BBBB BB  CC      RRRRRRRR  EEEEEEEE  DD      DD
LL      II      BBBB BB  CC      RRRRRRRR  EEEEEEEE  DD      DD
LL      II      BB      CC      RR      EE      DD      DD      DD
LL      II      BB      CC      RR      EE      DD      DD      DD
LL      II      BB      CC      RR      EE      DD      DD      DD
LL      II      BB      CC      RR      EE      DD      DD      DD
LL      II      BB      CC      RR      EE      DD      DD      DD
LLLLLLLL  IIIIII  BBBB BBBB  CCCCCCCC  RR      RR  EEEEEEEEE  DDDDDDDD  IIIIII  RR      RR
LLLLLLLL  IIIIII  BBBB BBBB  CCCCCCCC  RR      RR  EEEEEEEEE  DDDDDDDD  IIIIII  RR      RR

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
LLLLLLLL  IIIIII  SSSSSSSS
LLLLLLLL  IIIIII  SSSSSSSS
```



```
0001 0 %TITLE 'LIB$CREATE_DIR - Create directory'
0002 0 MODULE LIB$CREATE_DIR (
0003 0 IDENT = 'V03-005'
0004 0 ) =
0005 1 BEGIN
0006 1
0007 1 *****
0008 1 *
0009 1 * COPYRIGHT (c) 1978, 1980, 1982, 1984 BY
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0025 1 * SOFTWARE ON EQUIPMENT WHICH IS NOT SUPPLIED BY DIGITAL.
0026 1 *
0027 1 *
0028 1 *****
0029 1
0030 1 ++
0031 1 FACILITY: General Utility Library
0032 1
0033 1 ABSTRACT:
0034 1
0035 1 This routine creates a directory file.
0036 1
0037 1 ENVIRONMENT: Runs at any access mode - AST reentrant
0038 1
0039 1 AUTHOR: Martin L. Jack, CREATION DATE: 23-Dec-1981
0040 1
0041 1 MODIFIED BY:
0042 1
0043 1 V03-005 LMP0189 L. Mark Pilant, 6-Feb-1984 14:10
0044 1 Rip out the ACL propagation done here. It is now done by
0045 1 the disk ACP.
0046 1
0047 1 V03-004 RAS0249 Ron Schaefer 4-Feb-1984
0048 1 Fix this routine to cope with searchlists. The directory
0049 1 will be created in the first entry of the list just
0050 1 like a file create.
0051 1 We suppress the device assignment and directory lookups.
0052 1 Thus we need to do a $GETDVI in order to determine that
0053 1 the device is a disk.
0054 1
0055 1 V03-003 LMP0143 L. Mark Pilant, 24-Aug-1983 3:44
0056 1 Propagate the directory default protection ACE to the
0057 1 created directories.
```

LIB\$CREATE_DIR LIB\$CREATE_DIR - Create directory
V03-005

B 5
16-Sep-1984 00:40:49
14-Sep-1984 12:38:28

VAX-11 Bliss-32 V4.0-742
[LIBRTL.SRC]LIBCREDIR.B32;1

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(1)

: 58
: 59
: 60
: 61
: 62
: 63
: 64
: 65
: 0058 1
: 0059 1
: 0060 1
: 0061 1
: 0062 1
: 0063 1
: 0064 1
: 0065 1

V03-002 KBT0567 Keith B. Thompson 26-Jul-1983
New RMS file naming features
V03-001 ACG0275 Andrew C. Goldstein, 26-Mar-1982 13:50
Fix read references to top level directories

LIB
V03


```

67      0066 1 %SBTTL 'Declarations'
68      0067 1
69      0068 1 | SWITCHES:
70      0069 1 |
71      0070 1
72      0071 1 SWITCHES ADDRESSING_MODE (EXTERNAL = GENERAL, NONEXTERNAL = WORD_RELATIVE);
73      0072 1
74      0073 1 |
75      0074 1 | LINKAGES:
76      0075 1 |
77      0076 1 LINKAGE
78      0077 1 | LINKAGE_JSB_2_2 = JSB(REGISTER=0;REGISTER=1,REGISTER=2);
79      0078 1 |
80      0079 1 | TABLE OF CONTENTS:
81      0080 1 |
82      0081 1
83      0082 1 FORWARD ROUTINE
84      0083 1 | LIB$CREATE_DIR; | Create directory
85      0084 1 |
86      0085 1 |
87      0086 1 | INCLUDE FILES:
88      0087 1 |
89      0088 1 |
90      0089 1 LIBRARY 'SYS$LIBRARY:LIB'; | System symbols
91      0090 1
92      0091 1 |*! REQUIRE 'RTLIN:RTLPSECT'; | Define PSECT declarations macros
93      0092 1 |
94      0093 1 |
95      0094 1 | MACROS:
96      0095 1 |
97      0096 1 | NONE
98      0097 1 |
99      0098 1 | EQUATED SYMBOLS:
100     0099 1 |
101     0100 1 | NONE
102     0101 1 |
103     0102 1 | FIELDS:
104     0103 1 |
105     0104 1 | NONE
106     0105 1 |
107     0106 1 | PSECTS:
108     0107 1 |
109     0108 1 |*! DECLARE_PSECTS (LIB); | Declare PSECTs for LIB$ facility
110     0109 1 | PSECT
111     0110 1 | CODE = _LIB$CODE (READ, NOWRITE, EXECUTE, SHARE, PIC, ADDRESSING_MODE (WORD_RELATIVE)),
112     0111 1 | PLIT = _LIB$CODE (READ, NOWRITE, EXECUTE, SHARE, PIC, ADDRESSING_MODE (WORD_RELATIVE)),
113     0112 1 | OWN = _LIB$DATA (READ, WRITE, NOEXECUTE, NOSHARE, PIC, ADDRESSING_MODE (LONG_RELATIVE)),
114     0113 1 | GLOBAL = _LIB$DATA (READ, WRITE, NOEXECUTE, NOSHARE, PIC, ADDRESSING_MODE (LONG_RELATIVE));
115     0114 1 |
116     0115 1 | OWN STORAGE:
117     0116 1 |
118     0117 1 | NONE
119     0118 1 |
120     0119 1 | EXTERNAL REFERENCES:
121     0120 1 |
122     0121 1 |
123     0122 1 EXTERNAL ROUTINE
```

LIB\$CREATE_DIR V03-005 LIB\$CREATE_DIR - Create directory
Declarations

```
: 124 0123 1 LIB$ANALYZE_SDESC_R2:
: 125 0124 1 LIB$CVT_OTB;
: 126 0125 1 LIB$FREE_EF;
: 127 0126 1 LIB$GET_EF;
: 128 0127 1
: 129 0128 1 EXTERNAL LITERAL
: 130 0129 1 LIB$INVARG;
: 131 0130 1 LIB$INVFILSPE;
```

D 5
16-Sep-1984 00:40:49 VAX-11 Bliss-32 V4.0-742
14-Sep-1984 12:38:28 [LIBRTL.SRC]LIBCREDIR.B32;1

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```
LINKAGE JSB_2_2, ! Analyze descriptor
! Convert octal to binary
! Deallocate an event flag
! Allocate an event flag
! Completion status codes
! Invalid argument
! Invalid file specification
```

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```
133 0131 1 %SBTTL 'LIB$CREATE DIR - Create directory'
134 0132 1 GLOBAL ROUTINE LIB$CREATE_DIR (      | Create directory
135 0133 1      DEV_DIR_SPEC,                    | Device and directory string
136 0134 1      OWNER_UIC,                      | Owner UIC
137 0135 1      PROT_ENABLE,                   | File protection enables
138 0136 1      PROT_VALUE,                    | File protection value
139 0137 1      MAX_VERSIONS,                  | Maximum version count
140 0138 1      RVN,                          | Relative volume number
141 0139 1      ) =
142 0140 1
143 0141 1 ++
144 0142 1 FUNCTIONAL DESCRIPTION:
145 0143 1
146 0144 1     This routine creates directory files - it
147 0145 1     creates one directory (spec) at a time. The
148 0146 1     directory may have up to 7 levels of sub-directories.
149 0147 1
150 0148 1 CALLING SEQUENCE:
151 0149 1
152 0150 1     ret_status.wlc.v = LIB$CREATE_DIR (dev-dir-spec.rt.dx,
153 0151 1     [owner-UIC.rlu.r], [prot-enable.rwu.r], [prot-value.rwu.r],
154 0152 1     [max-versions.rwu.r], [rvn.rwu.r])
155 0153 1
156 0154 1 FORMAL PARAMETERS:
157 0155 1
158 0156 1     DEV_DIR_SPEC      Address of a descriptor for the device and directory
159 0157 1                   specification. This string is a standard RMS file
160 0158 1                   specification; it must not contain a node name, file
161 0159 1                   name, file type, file version, or wild card characters;
162 0160 1                   it must contain an explicit directory; it must
163 0161 1                   reference a disk device. The string must be no longer
164 0162 1                   than 255 characters.
165 0163 1
166 0164 1     OWNER_UIC         Address of a longword that specifies the owner UIC of
167 0165 1                   the created directories. If specified with a zero
168 0166 1                   value, the owner UIC is that of the parent directory.
169 0167 1                   This is an optional parameter. The default is the
170 0168 1                   current process UIC, except that if the directory is in
171 0169 1                   UIC format, that UIC is the default.
172 0170 1
173 0171 1     PROT_ENABLE       Address of a word containing a mask to specify the bits
174 0172 1                   of prot-value to be used. Bits of the file protection
175 0173 1                   corresponding to set bits in prot-enable are set to the
176 0174 1                   value of the corresponding bit of the prot-value
177 0175 1                   parameter; bits of the file protection corresponding to
178 0176 1                   clear bits in prot-enable are set to the value of the
179 0177 1                   corresponding bit of the parent directory's file
180 0178 1                   protection with delete access dropped for all access
181 0179 1                   categories. This is an optional parameter. The
182 0180 1                   default is a mask of all zero bits, which results in
183 0181 1                   propagating the parent directory's file protection.
184 0182 1                   If prot-enable is all zero, prot-value is ignored.
185 0183 1
186 0184 1     PROT_VALUE        Address of a word containing a mask to specify the
187 0185 1                   value of the file protection. Bits of the file
188 0186 1                   protection corresponding to set bits in prot-enable are
189 0187 1                   set to the value of the corresponding bit of the
```

```
190 0188 1 | prot-value parameter. This is an optional parameter.  
191 0189 1 | The default is a mask of all zero bits, which specifies  
192 0190 1 | full access for all access categories. In typical  
193 0191 1 | usage, prot-value is not omitted unless prot-enable is  
194 0192 1 | also omitted; in this case, prot-value is ignored.  
195 0193 1 |  
196 0194 1 | MAX_VERSIONS Address of a word that specifies the default maximum  
197 0195 1 | number of versions for files cataloged in the created  
198 0196 1 | directories. This is an optional parameter. The  
199 0197 1 | default is the parent directory's default version  
200 0198 1 | limit. If specified as zero, the maximum number of  
201 0199 1 | versions is not limited.  
202 0200 1 |  
203 0201 1 | RVN Address of a word that specifies the relative volume  
204 0202 1 | number within a volume set on which the directories  
205 0203 1 | must be created. This is an optional parameter. The  
206 0204 1 | default is arbitrary placement.  
207 0205 1 |  
208 0206 1 | The format of PROT_ENABLE and PROT_VALUE is:  
209 0207 1 |  
210 0208 1 | 1 1 1 1 1  
211 0209 1 | 5 4 3 2 1 0 9 8 7 6 5 4 3 2 1 0  
212 0210 1 | +-----+-----+-----+-----+  
213 0211 1 | World | Group | Owner | System |  
214 0212 1 | D E W R | D E W R | D E W R | D E W R |  
215 0213 1 | +-----+-----+-----+-----+  
216 0214 1 |  
217 0215 1 | Set bits deny access and clear bits grant access.  
218 0216 1 |  
219 0217 1 | IMPLICIT INPUTS:  
220 0218 1 |  
221 0219 1 | NONE  
222 0220 1 |  
223 0221 1 | IMPLICIT OUTPUTS:  
224 0222 1 |  
225 0223 1 | NONE  
226 0224 1 |  
227 0225 1 | COMPLETION STATUS:  
228 0226 1 |  
229 0227 1 | SS$_NORMAL Normal successful completion; all specified directories  
230 0228 1 | already exist  
231 0229 1 |  
232 0230 1 | SS$_CREATED Normal successful completion; one or more directories  
233 0231 1 | created  
234 0232 1 |  
235 0233 1 | LIB$_INVARG Required argument omitted, or dev-dir-spec longer than  
236 0234 1 | 255 characters  
237 0235 1 |  
238 0236 1 | LIB$_INVFILSPE File specification did not contain an explicit  
239 0237 1 | directory or contained a node name, file name, file  
240 0238 1 | type, file version, or wildcard, or device not a disk  
241 0239 1 |  
242 0240 1 | LIB$ANALYZE_SDESC errors  
243 0241 1 | $PARSE errors  
244 0242 1 | $ASSIGN errors  
245 0243 1 | LIB$GET_EF errors  
246 0244 1 | $QIO errors
```



```
247 0245 1 | $DASSGN errors
248 0246 1 | LIB$FREE_EF errors
249 0247 1 |
250 0248 1 | SIDE EFFECTS:
251 0249 1 |
252 0250 1 | Directory files created as requested.
253 0251 1 |
254 0252 1 | NOTES:
255 0253 1 |
256 0254 1 | LIB$CREATE_DIR does nothing with the ACL associated with a
257 0255 1 | directory. This is the job of the file system (XQP). There is a bit
258 0256 1 | defined in the FIB (FIB$x_DIRACL) that tells the file system (ACP)
259 0257 1 | that the file being created is going to be a directory file. The
260 0258 1 | file system (ACP)
261 0259 1 | then copies the ACL from the parent directory (excluding ACEs
262 0260 1 | marked as NOPROPAGATE). If the ACL of the sub-directory is
263 0261 1 | to be different than the parent directory, it is necessary to
264 0262 1 | alter it after the directory is created.
265 0263 1 |
266 0264 1 | --
267 0265 1 |
268 0266 2 | BEGIN
269 0267 2 | LOCAL
270 0268 2 | FAB: $FAB_DECL, ! FAB for $PARSE
271 0269 2 | NAM: $NAM_DECL, ! NAM block for $PARSE
272 0270 2 | ESA_BUFFER: VECTOR[NAM$C_MAXRSS, BYTE], ! Expanded string area
273 0271 2 | TEMP_DESC: BLOCK[DSC$K_5_BLN, BYTE], ! Utility descriptor
274 0272 2 | NAME_BUFFER: VECTOR[15, BYTE], ! Directory name buffer
275 0273 2 | NAME_DESC: BLOCK[DSC$K_2_BLN, BYTE], ! Directory name descriptor
276 0274 2 | DEV_ATTR: BLOCK[4, BYTE], ! Device attributes from $GETDVI
277 0275 2 | DVI_ITMLST: BLOCK[4, LONG], ! One itemlist entry
278 0276 2 | INITIAL(DVI$ DEVCHAR*65536+4, DEV_ATTR, 0, 0),
279 0277 2 | RECATTR: BLOCK[ATR$S_RECATTR, BYTE]
280 0278 2 | VOLATILE, ! Record attributes
281 0279 2 | UCHAR: BLOCK[ATR$S_UCHAR, BYTE]
282 0280 2 | VOLATILE, ! File characteristics
283 0281 2 | FPRO: BLOCK[ATR$S_FPRO, BYTE]
284 0282 2 | VOLATILE, ! File protection
285 0283 2 | UIC: BLOCK[ATR$S_UIC, BYTE]
286 0284 2 | VOLATILE, ! File owner UIC
287 0285 2 | HEADER: BLOCK[ATR$S_HEADER, BYTE]
288 0286 2 | VOLATILE, ! File header
289 0287 2 | FIB: BLOCK[FIB$C_LENGTH, BYTE], ! FIB
290 0288 2 | FIB_DESC: VECTOR[2], ! Descriptor for FIB
291 0289 2 | ATR: BLOCKVECTOR[7, 8, BYTE], ! Attribute descriptors
292 0290 2 | IOSB: VECTOR[4, WORD], ! I/O status block
293 0291 2 | CHANNEL: WORD, ! Channel number
294 0292 2 | EFN, ! Event flag number
295 0293 2 | GROUP, ! Binary group number
296 0294 2 | MEMBER, ! Binary member number
297 0295 2 | LOCAL_ENABLE: WORD, ! Value of PROT_ENABLE after defaulting
298 0296 2 | LOCAL_VALUE: WORD, ! Value of PROT_VALUE after defaulting
299 0297 2 | DIR_LENGTH, ! Length of residual directory string
300 0298 2 | DIR_ADDRESS, ! Address of residual directory string
301 0299 2 | REA[DIR_ADDRESS, ! Real (not root) directory pointer
302 0300 2 | STATUS_1, ! Status return
303 0301 2 | STATUS_2, ! Status return
```

LIB\$CREATE_DIR
V03-005

LIB\$CREATE_DIR - Create directory
LIB\$CREATE_DIR - Create directory

H 5
16-Sep-1984 00:40:49
14-Sep-1984 12:38:28

VAX-11 Bliss-32 V4.0-742
[LIBRTL.SRC]LIBCREDIR.B32;1

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```

304      0302 2      STATUS_4,      ! Status return
305      0303 2      STATUS_5,      ! Status return
306      0304 2      STATUS_6,      ! Status return
307      0305 2      STATUS_7,      ! Status return
308      0306 2      FINAL_STATUS;   ! Status return
309      0307
310      0308 2 BIND
311      0309 2      DIR_TYP_VER = UPLIT BYTE ('.DIR;1');
312      0310 2      ! File type and version string
313      0311 2 LABEL
314      0312 2      PROCESS;         ! Block exited when processing complete
315      0313 2 BUILTIN
316      0314 2      ACTUALCOUNT,    ! Return number of arguments
317      0315 2      LOCC,            ! LOCC instruction
318      0316 2      NULLPARAMETER,   ! Test if parameter specified
319      0317 2      ROT;             ! Rotate longword
320      0318
321      0319 2 ! Ensure that the required parameter is present.
322      0320 2
323      0321 2 IF ACTUALCOUNT() EQL 0
324      0322 2 THEN
325      0323 2     RETURN LIB$_INVARG;
326      0324 2
327      0325 2 ! Initialize RMS structures required to do a $PARSE.
328      0326 2
329      P 0327 2 $FAB_INIT( FAB = FAB,
330      0328 2     NAM = NAM );
331      P 0329 2 $NAM_INIT( NAM = NAM,
332      0330 2     NOP = <SYNCHK,NOCONCEAL>,
333      P 0331 2     ESA = ESA_BUFFER,
334      0332 2     ESS = NAM$_MAXRSS );
335      0333
336      0334 2 ! Analyze the input descriptor and set up the FAB filename descriptor.
337      0335 2
338      0336 3 BEGIN ! block to use output registers
339      0337 3 REGISTER
340      0338 3     R1 = 1,
341      0339 3     R2 = 2;
342      0340 3
343      0341 3 STATUS_1 = LIB$ANALYZE_SDESC_R2(.DEV_DIR_SPEC; R1, R2);
344      0342 3 IF NOT .STATUS_1
345      0343 3 THEN
346      0344 3     RETURN .STATUS_1;
347      0345 3
348      0346 3 IF .R1 GTRU 255
349      0347 3 THEN
350      0348 3     RETURN LIB$_INVARG;
351      0349 3
352      0350 3 FAB [ FAB$_FNS ] = .R1;
353      0351 3 FAB [ FAB$_FNA ] = .R2
354      0352 2 END; ! block to use output registers
355      0353 2
356      0354 2 !+
357      0355 2 ! Parse the file specification to obtain the expanded name string. RMS will
358      0356 2 ! usually return RMS$_DNF (directory not found), but all that is needed is
359      0357 2 ! the expanded string.
360      0358 2 !-
```


LIB\$CREATE_DIR
VO3-005

LIB\$CREATE_DIR - Create directory
LIB\$CREATE_DIR - Create directory

I 5
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[LIBRTL.SRC]LIBCREDIR.B32;1

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```

361      0359      2
362      0360      2 STATUS_2 = $PARSE(FAB=FAB);
363      0361      2 IF NOT .STATUS_2
364      0362      2 THEN
365      0363      2     RETURN STATUS_2;
366      0364      2
367      0365      2 ! Perform various error checks on the file specification. It must not have
368      0366      2 ! a node name, file name, file type, or file version; it must have a directory
369      0367      2 ! name that does not contain wildcards.
370      0368      2
371      0369      2 IF NOT .NAM[NAM$V_EXP_DIR] OR
372      0370      3     (.NAM[NAM$L_FNB] AND
373      0371      4         (NAM$M_WILDCARD OR
374      0372      3         NAM$M_NODE OR NAM$M_EXP_NAME OR NAM$M_EXP_TYPE OR NAM$M_EXP_VER))
375      0373      2     NEQ 0
376      0374      2 THEN
377      0375      2     RETURN LIB$_INVFILSPE;
378      0376      2
379      0377      2 ! Get the length and address of the directory string without brackets.
380      0378      2
381      0379      2 DIR_LENGTH = .NAM [ NAM$B_DIR ] - 2;          ! Length without brackets
382      0380      2 DIR_ADDRESS = .NAM [ NAM$_DIR ] + 1;          ! Address without bracket
383      0381      2
384      0382      2 ! If there is a root directory locate the real directory and squish
385      0383      2 ! them together
386      0384      2
387      0385      2 IF .NAM [ NAM$V_ROOT_DIR ]
388      0386      2 THEN
389      0387      3 BEGIN
390      0388      3
391      0389      3     REGISTER
392      0390      3         R0 = 0,
393      0391      3         R1 = 1;
394      0392      3
395      0393      3     LOCAL
396      0394      3         TERMINATOR:      BYTE;
397      0395      3
398      0396      3     TERMINATOR = ..NAM [ NAM$L_DIR ] + 2;          ! Close = Open+2
399      0397      3
400      0398      3 IF NOT LOCC( TERMINATOR, DIR_LENGTH, .DIR_ADDRESS; R0, R1 )
401      0399      3 THEN
402      0400      3     RETURN LIB$_INVFILSPE;          ! No Root Found
403      0401      3
404      0402      3     REALDIR_ADDRESS = .R1;
405      0403      3
406      0404      3 ! Found the terminator of the root directory, the real directory
407      0405      3 ! will be 2 past it, i.e. "[ROOT.][DIR]"
408      0406      3     REALDIR_ADDRESS-^
409      0407      3
410      0408      3 ! Move what is left over 2 in order to get rid of the "[[" to get:
411      0409      3 ! "[ROOT.DIR]"
412      0410      3     REALDIR_ADDRESS-^
413      0411      3
414      0412      3 CH$MOVE( .R0, .REALDIR_ADDRESS+2, .REALDIR_ADDRESS );
415      0413      3
416      0414      3 ! Adjust the direcorey length
417      0415      3
```

```

418 0416 3 DIR_LENGTH = .DIR_LENGTH - 2
419 0417 3
420 0418 3 END
421 0419 3 ELSE
422 0420 3
423 0421 3 ! If no root then the real directory is the uic directory
424 0422 3
425 0423 3 REALDIR_ADDRESS = .DIR_ADDRESS;
426 0424 3
427 0425 3 ! If the directory is in UIC format, convert it to normal format.
428 0426 3
429 0427 3 IF .NAM [ NAM$V_GRP_MBR ]
430 0428 3 THEN
431 0429 3 BEGIN
432 0430 3
433 0431 3 ! Convert the group part
434 0432 3
435 0433 3 IF NOT LIB$CVT_OTB( 3, .REALDIR_ADDRESS, GROUP)
436 0434 3 THEN
437 0435 3 RETURN LIB$_INVFILSPE; ! Invalid group number
438 0436 3
439 0437 3 ! Convert the member part
440 0438 3
441 0439 3 IF NOT LIB$CVT_OTB( 3, .REALDIR_ADDRESS + 3, MEMBER)
442 0440 3 THEN
443 0441 3 RETURN LIB$_INVFILSPE ! Invalid member number
444 0442 3
445 0443 3 END;
446 0444 3
447 0445 2 TEMP_DESC [ DSC$B_CLASS ] = DSC$K_CLASS_S;
448 0446 2 TEMP_DESC [ DSC$B_DTYPE ] = DSC$K_DTYPE_T;
449 0447 2 TEMP_DESC [ DSC$W_LENGTH ] = .NAM [ NAM$B_DEV ];
450 0448 2 TEMP_DESC [ DSC$A_POINTER ] = .NAM [ NAM$_DEV ];
451 0449 2
452 0450 2 ! Set up the FIB to look up the MFD.
453 0451 2
454 0452 2 CH$FILL(0, FIB$C_LENGTH, FIB);
455 0453 2 FIB[FIB$L_ACCTL] = FIB$M_WRITE OR FIB$M_NOREAD OR FIB$M_NOWRITE;
456 0454 2 FIB[FIB$W_FID_NUM] = FID$C_MFD;
457 0455 2 FIB[FIB$W_FID_SEQ] = FID$C_MFD;
458 0456 2
459 0457 2 ! Set up the FIB descriptor.
460 0458 2
461 0459 2 FIB_DESC[0] = FIB$C_LENGTH;
462 0460 2 FIB_DESC[1] = FIB;
463 0461 2
464 0462 2 ! Set up the name descriptor. The length is filled in as need be.
465 0463 2
466 0464 2 NAME_DESC[DSC$A_POINTER] = NAME_BUFFER;
467 0465 2
468 0466 2 !+
469 0467 2 ! Assign a channel to the device. The descriptor is already set up from
470 0468 2 ! a preceding operation.
471 0469 2 !-
472 0470 2
473 0471 2 STATUS_4 = $ASSIGN(DEVNAM=TEMP_DESC, CHAN=CHANNEL);
474 0472 2 IF NOT .STATUS_4 THEN RETURN .STATUS_4;
```


LIB\$CREATE_DIR
VO3-005

LIB\$CREATE_DIR - Create directory
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```

: 475      0473  2
: 476      0474  2  !+
: 477      0475  2  ! Get the device characteristics and make sure this is a disk-device
: 478      0476  2  ! and not mounted foreign.
: 479      0477  2  !-
: 480      0478  2
: 481      0479  2  STATUS_4 = $GETDVIW(CHAN=.CHANNEL,ITMLST=DVI_ITMLST);
: 482      0480  2  IF NOT .STATUS_4 THEN RETURN .STATUS_4;
: 483      0481  2  IF NOT .DEV_ATTR[DEV$V_RND] OR .DEV_ATTR[DEV$V_FOR]
: 484      0482  2  THEN
: 485      0483  3      BEGIN
: 486      0484  3          $DASSGN(CHAN=.CHANNEL);
: 487      0485  3          RETURN LIB$_INVFILSPE;
: 488      0486  2      END;
: 489      0487  2
: 490      0488  2  !+
: 491      0489  2  ! Allocate an event flag.
: 492      0490  2  !-
: 493      0491  2
: 494      0492  2  STATUS_5 = LIB$GET_EF(EFN);
: 495      0493  2  IF NOT .STATUS_5
: 496      0494  2  THEN
: 497      0495  3      BEGIN
: 498      0496  3          $DASSGN(CHAN=.CHANNEL);
: 499      0497  3          RETURN .STATUS_5;
: 500      0498  2      END;
: 501      0499  2
: 502      0500  2  !+
: 503      0501  2  ! Beginning of block that is exited when processing is complete.  FINAL_STATUS
: 504      0502  2  ! contains the status to be returned to caller.
: 505      0503  2  !-
: 506      0504  2
: 507      0505  3  PROCESS: BEGIN
: 508      0506  3
: 509      0507  3  !+
: 510      0508  3  ! Loop to look up directories.
: 511      0509  3  !-
: 512      0510  3
: 513      0511  3  WHILE 1 DO
: 514      0512  4      BEGIN
: 515      0513  4
: 516      0514  4          !+
: 517      0515  4          ! Copy the file ID to FIB$W_DID so that the next lookup is done in that
: 518      0516  4          ! directory.
: 519      0517  4          !-
: 520      0518  4
: 521      0519  4          FIB[FIB$W_DID_NUM] = .FIB[FIB$W_FID_NUM];
: 522      0520  4          FIB[FIB$W_DID_SEQ] = .FIB[FIB$W_FID_SEQ];
: 523      0521  4          FIB[FIB$W_DID_RVN] = .FIB[FIB$W_FID_RVN];
: 524      0522  4
: 525      0523  4          !+
: 526      0524  4          ! Locate the next directory name.
: 527      0525  4          !-
: 528      0526  4
: 529      0527  5      BEGIN ! block to use output registers
: 530      0528  5      REGISTER
: 531      0529  5          R0 = 0,

```

LIB\$CREATE_DIR
V03-005

LIB\$CREATE_DIR - Create directory
LIB\$CREATE_DIR - Create directory

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```

532      R1 = 1;
533      LOCAL
534      NAME_LENGTH,
535      NAME_ADDRESS;
536
537      NAME_ADDRESS = .DIR_ADDRESS;      ! Save starting point
538      LOCCT%REF(%C'.'), DIR_LENGTH, .DIR_ADDRESS; R0, R1);
539      NAME_LENGTH = .DIR_LENGTH - .R0;  ! Length preceding dot or end
540      DIR_ADDRESS = .R1 + 1;           ! Prune to string following dot
541      R0 = .R0 - 1;
542      DIR_LENGTH = .R0;
543
544      !+
545      ! Construct the directory name concatenated with '.DIR;1' in the name
546      ! buffer, and a descriptor for this name in the name descriptor.
547      !-
548
549      NAME_DESC[DSC$W_LENGTH] = .NAME_LENGTH + 6;
550      CH$MOVE(6, DIR_TYP_VER, CH$MOVE(.NAME_LENGTH, .NAME_ADDRESS, NAME_BUFFER));
551      END; ! block to use output registers
552
553      !+
554      ! Look up the directory at the current level. If the directory
555      ! does not exist, exit the loop to begin creating directories.
556      !-
557
558      P 0556 4 FINAL_STATUS = $QIOW(
559      P 0557 4     FUNC=IOS_ACCESS,
560      P 0558 4     CHAN=.CHANNEL,
561      P 0559 4     EFN=.EFN,
562      P 0560 4     IOSB=IOSB,
563      P 0561 4     P1=FIB_DESC,
564      0562 4     P2=NAME_DESC);
565      IF .FINAL_STATUS THEN FINAL_STATUS = .IOSB[0];
566      IF .FINAL_STATUS EQL SS$ NOSUCHFILE THEN EXITLOOP;
567      IF NOT .FINAL_STATUS THEN LEAVE PROCESS;
568
569      !+
570      ! If no more directory levels were specified, all specified directories
571      ! already exist, so return with success.
572      !-
573
574      IF .DIR_LENGTH LEQ 0
575      THEN
576      BEGIN
577      FINAL_STATUS = SS$_NORMAL;
578      LEAVE PROCESS;
579      END;
580      END;
581
582      !+
583      ! We have reached the level at which directories do not yet exist. FIB$W_DID
584      ! now contains the file ID of the directory in which the new directory must be
585      ! cataloged and the filename descriptor contains the name of the new directory.
586      !-
587
588      !+
```



```
589 0587 3 ! Set up the attribute list. Because of dependencies later in the routine,  
590 0588 3 ! the file header attribute must be last, preceded by the owner UIC attribute.  
591 0589 3 !-  
592 0590 3  
593 0591 3 ATR[0, ATR$W_TYPE] = ATR$C_RECATTR; ! Record attributes  
594 0592 3 ATR[0, ATR$W_SIZE] = ATR$S_RECATTR;  
595 0593 3 ATR[0, ATR$W_ADDR] = RECATTR;  
596 0594 3 ATR[1, ATR$W_TYPE] = ATR$C_UCHAR; ! File characteristics  
597 0595 3 ATR[1, ATR$W_SIZE] = ATR$S_UCHAR;  
598 0596 3 ATR[1, ATR$W_ADDR] = UCHAR;  
599 0597 3 ATR[2, ATR$W_TYPE] = ATR$C_FPRO; ! File protection  
600 0598 3 ATR[2, ATR$W_SIZE] = ATR$S_FPRO;  
601 0599 3 ATR[2, ATR$W_ADDR] = FPRO;  
602 0600 3 ATR[3, ATR$W_TYPE] = ATR$C_UIC; ! File owner UIC  
603 0601 3 ATR[3, ATR$W_SIZE] = ATR$S_UIC;  
604 0602 3 ATR[3, ATR$W_ADDR] = UIC;  
605 0603 3 ATR[4, ATR$W_TYPE] = ATR$C_HEADER; ! File header  
606 0604 3 ATR[4, ATR$W_SIZE] = ATR$S_HEADER;  
607 0605 3 ATR[4, ATR$W_ADDR] = HEADER;  
608 0606 3 ATR[5, 0,0,32,0] = 0; ! End of list  
609 0607 3  
610 0608 3  
611 0609 3 !+  
612 0610 3 ! Copy the file ID back to FIB$W_FID to do the read attributes on the  
613 0611 3 ! last directory file.  
614 0612 3 !-  
615 0613 3  
616 0614 3 FIB[FIB$W_FID_NUM] = .FIB[FIB$W_DID_NUM];  
617 0615 3 FIB[FIB$W_FID_SEQ] = .FIB[FIB$W_DID_SEQ];  
618 0616 3 FIB[FIB$W_FID_RVN] = .FIB[FIB$W_DID_RVN];  
619 0617 3 FIB[FIB$W_DID_NUM] = 0;  
620 0618 3 FIB[FIB$W_DID_SEQ] = 0;  
621 0619 3 FIB[FIB$W_DID_RVN] = 0;  
622 0620 3  
623 0621 3 !+  
624 0622 3 ! Read the attributes of the last directory file found so that they  
625 0623 3 ! may be propagated to the directories created.  
626 0624 3 !-  
627 0625 3  
628 P 0626 3 FINAL STATUS = $QIOW(  
629 P 0627 3 FUNC=IOS$ ACCESS,  
630 P 0628 3 CHAN=.CHANNEL,  
631 P 0629 3 EFN=.EFN,  
632 P 0630 3 IOSB=IOSB,  
633 P 0631 3 P1=FIB_DESC,  
634 0632 3 P5=ATR;  
635 0633 3 IF .FINAL STATUS THEN FINAL STATUS = .IOSB[0];  
636 0634 3 IF NOT .FINAL STATUS THEN LEAVE PROCESS;  
637 0635 3  
638 0636 3  
639 0637 3 !+  
640 0638 3 ! Delete the file header attribute from the attribute list, since it is not  
641 0639 3 ! valid (or necessary) for creates.  
642 0640 3 !-  
643 0641 3  
644 0642 3 ATR[4, 0,0,32,0] = 0;  
645 0643 3
```

```

646 0644 3 1+
647 0645 3 1+ Copy the file ID to FIB$W_DID to create the directory.
648 0646 3 1-
649 0647 3 1-
650 0648 3 FIB[FIB$W_DID_NUM] = .FIB[FIB$W_FID_NUM];
651 0649 3 FIB[FIB$W_DID_SEQ] = .FIB[FIB$W_FID_SEQ];
652 0650 3 FIB[FIB$W_DID_RVN] = .FIB[FIB$W_FID_RVN];
653 0651 3 1-
654 0652 3 1+
655 0653 3 1+ Establish the allocation of the created directories. A Structure Level 1
656 0654 3 directory is allocated zero blocks; a Structure Level 2 directory is
657 0655 3 allocated one block. (This block is later initialized.) In both cases,
658 0656 3 the file is marked contiguous.
659 0657 3 1-
660 0658 3 1-
661 0659 3 FIB[FIB$W_EXCTL] = FIB$M_EXTEND OR FIB$M_FILCON OR FIB$M_ALCON;
662 0660 3 IF .HEADER[FH2$B_STRUCLEV] EQL 2 THEN FIB[FIB$L_EXSZ] = T;
663 0661 3 1-
664 0662 3 1+
665 0663 3 1+ Set up the end of file pointer. It points to the highest allocated block
666 0664 3 plus one (with a first free byte of zero). Note that EFBLK is stored in
667 0665 3 inverted format.
668 0666 3 1-
669 0667 3 1-
670 0668 3 RECATTR[FAT$L_EFBLK] = ROT(.FIB[FIB$L_EXSZ] + 1, 16);
671 0669 3 1-
672 0670 3 1+
673 0671 3 1+ Establish the owner UIC of the created directories. If the process default
674 0672 3 UIC is to be used, delete the owner UIC attribute from the attribute list
675 0673 3 to cause the ACP to use the default.
676 0674 3 1-
677 0675 3 1-
678 0676 3 IF NOT NULLPARAMETER(2)
679 0677 3 THEN
680 0678 4 BEGIN
681 0679 4 IF ..OWNER_UIC NEQ 0 THEN UIC = ..OWNER_UIC;
682 0680 4 END
683 0681 3 ELSE
684 0682 3 IF .NAM[NAM$V_GRP_MBR]
685 0683 3 THEN
686 0684 4 BEGIN
687 0685 4 UIC<16,16> = .GROUP;
688 0686 4 UIC<0,16> = .MEMBER;
689 0687 4 END
690 0688 3 ELSE
691 0689 3 ATR[3, 0,0,32,0] = 0;
692 0690 3 1-
693 0691 3 1+
694 0692 3 1+ Establish the file protection of the created directories.
695 0693 3 1-
696 0694 3 1-
697 0695 3 FPRO = .FPRO OR %X'8888';
698 0696 3 LOCAL_ENABLE = 0;
699 0697 3 IF NOT NULLPARAMETER(3)
700 0698 3 THEN
701 0699 3 LOCAL_ENABLE = .(.PROT_ENABLE)<0,16>;
702 0700 3 1-

```


LIB\$CREATE_DIR
V03-005

LIB\$CREATE_DIR - Create directory
LIB\$CREATE_DIR - Create directory

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```

: 703      0701 3 LOCAL_VALUE = 0;
: 704      0702 3 IF NOT NULLPARAMETER(4)
: 705      0703 3 THEN
: 706      0704 3     LOCAL_VALUE = .(.PROT_VALUE)<0,16>;
: 707      0705 3
: 708      0706 3 FPRO = (.FPRO AND NOT .LOCAL_ENABLE) OR (.LOCAL_VALUE AND .LOCAL_ENABLE);
: 709      0707 3
: 710      0708 3 !+
: 711      0709 3 ! Establish the default version limit of the created directories.
: 712      0710 3 !-
: 713      0711 3
: 714      0712 3 IF NOT NULLPARAMETER(5)
: 715      0713 3 THEN
: 716      0714 3     RECATTR[FAT$W_VERSIONS] = .(.MAX_VERSIONS)<0,16>;
: 717      0715 3
: 718      0716 3 !+
: 719      0717 3 ! Establish the placement of the created directories. Note that if placement
: 720      0718 3 ! is specified, it is required.
: 721      0719 3 !-
: 722      0720 3
: 723      0721 3 IF NOT NULLPARAMETER(6)
: 724      0722 3 THEN
: 725      0723 4     BEGIN
: 726      0724 4         FIB[FIB$V_EXACT] = 1;                ! Exact placement
: 727      0725 4         FIB[FIB$B_ALALIGN] = FIB$C_LBN;      ! RVN and LBN placement
: 728      0726 4         FIB[FIB$W_LOC_RVN] = .(.RVN)<0,16>;    ! Required RVN
: 729      0727 4     END;
: 730      0728 3
: 731      0729 3 !+
: 732      0730 3 ! Note that the ACL should be copied from parent to child.
: 733      0731 3 !-
: 734      0732 3
: 735      0733 3 FIB[FIB$V_DIRACL] = 1;
: 736      0734 3
: 737      0735 3 !+
: 738      0736 3 ! Loop to create directories.
: 739      0737 3 !-
: 740      0738 3
: 741      0739 3 WHILE 1 DO
: 742      0740 4     BEGIN
: 743      0741 4
: 744      0742 4         !+
: 745      0743 4         ! Create and access the file.
: 746      0744 4         !-
: 747      0745 4
: 748      P 0746 4         FINAL STATUS = $QIOW(
: 749      P 0747 4             FUNC=IOS_CREATE OR IOSM_CREATE OR IOSM_ACCESS,
: 750      P 0748 4             CHAN=.CHANNEL,
: 751      P 0749 4             EFN=.EFN,
: 752      P 0750 4             IOSB=IOSB,
: 753      P 0751 4             P1=FIB_DESC,
: 754      P 0752 4             P2=NAME_DESC,
: 755      0753 4             P5=ATR);
: 756      0754 4         IF .FINAL_STATUS THEN FINAL_STATUS = .IOSB[0];
: 757      0755 4         IF NOT .FINAL_STATUS THEN LEAVE PROCESS;
: 758      0756 4
: 759      0757 4         !+

```



```

: 760      0758 4      ! If the directory is Structure Level 2, write the first block of the
: 761      0759 4      ! file.
: 762      0760 4      !-
: 763      0761 4
: 764      0762 4      IF .HEADER[FH2$B_STRUCLEV] EQL 2
: 765      0763 4      THEN
: 766      0764 5          BEGIN
: 767      0765 5              LOCAL
: 768      0766 5                  BLOCK_BUFFER:      VECTOR[256,WORD];      ! Block buffer
: 769      0767 5
: 770      0768 5                  BLOCK_BUFFER[0] = -1;      ! End of block marker
: 771      0769 5                  CH$FILL(0, 510, BLOCK_BUFFER[1]);      ! Fill rest of block
: 772      P 0770 5                  FINAL_STATUS = $QIOW(
: 773      P 0771 5                      FUNC=IOS$ WRITEVBLK,
: 774      P 0772 5                      CHAN=.CHANNEL,
: 775      P 0773 5                      EFN=.EFN,
: 776      P 0774 5                      IOSB=IOSB,
: 777      P 0775 5                      P1=BLOCK_BUFFER,
: 778      P 0776 5                      P2=512,
: 779      0777 5                      P3=1);
: 780      0778 5                  IF .FINAL_STATUS THEN FINAL_STATUS = .IOSB[0];
: 781      0779 5                  IF NOT .FINAL_STATUS THEN LEAVE PROCESS;
: 782      0780 4                  END;
: 783      0781 4
: 784      0782 4      !+
: 785      0783 4      ! Deaccess the file.
: 786      0784 4      !-
: 787      0785 4
: 788      P 0786 4      FINAL_STATUS = $QIOW(
: 789      P 0787 4          FUNC=IOS$ DEACCESS,
: 790      P 0788 4          CHAN=.CHANNEL,
: 791      P 0789 4          EFN=.EFN,
: 792      0790 4          IOSB=IOSB);
: 793      0791 4      IF .FINAL_STATUS THEN FINAL_STATUS = .IOSB[0];
: 794      0792 4      IF NOT .FINAL_STATUS THEN LEAVE PROCESS;
: 795      0793 4
: 796      0794 4      !+
: 797      0795 4      ! If no more directory levels were specified, they have all been created.
: 798      0796 4      !-
: 799      0797 4
: 800      0798 4      IF .DIR_LENGTH LEQ 0
: 801      0799 4      THEN
: 802      0800 5          BEGIN
: 803      0801 5              FINAL_STATUS = SSS_CREATED;
: 804      0802 5              LEAVE PROCESS;
: 805      0803 4          END;
: 806      0804 4
: 807      0805 4      !+
: 808      0806 4      ! Locate the next directory name.
: 809      0807 4      !-
: 810      0808 4
: 811      0809 5      BEGIN ! block to use output registers
: 812      0810 5      REGISTER
: 813      0811 5          R0 = 0,
: 814      0812 5          R1 = 1;
: 815      0813 5      LOCAL
: 816      0814 5          NAME_LENGTH,
```


LIB\$CREATE_DIR
V03-005

LIB\$CREATE_DIR - Create directory
LIB\$CREATE_DIR - Create directory

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```

: 817      0815 5      NAME_ADDRESS;
: 818      0816 5
: 819      0817 5      NAME_ADDRESS = .DIR_ADDRESS;      ! Save starting point
: 820      0818 5      LOCCT%REF(%C'.'), DIR_LENGTH, .DIR_ADDRESS; R0, R1);
: 821      0819 5      NAME_LENGTH = .DIR_LENGTH - .R0;      ! Length preceding dot or end
: 822      0820 5      DIR_ADDRESS = .R1 + 1;      ! Prune to string following dot
: 823      0821 5      R0 = .R0 - 1;
: 824      0822 5      DIR_LENGTH = .R0;
: 825      0823 5
: 826      0824 5      !+
: 827      0825 5      ! Construct the directory name concatenated with '.DIR;1' in the name
: 828      0826 5      ! buffer, and a descriptor for this name in the name descriptor.
: 829      0827 5      !-
: 830      0828 5
: 831      0829 5      NAME_DESC[DSC$W_LENGTH] = .NAME_LENGTH + 6;
: 832      0830 5      CH$MOVE(6, DIR_TYP_VER, CH$MOVE(.NAME_LENGTH, .NAME_ADDRESS, NAME_BUFFER));
: 833      0831 4      END; ! block to use output registers
: 834      0832 4
: 835      0833 4      !+
: 836      0834 4      ! Copy the file ID of the created directory to FIB$W_DID so that the next
: 837      0835 4      ! directory is cataloged in the directory just created.
: 838      0836 4      !-
: 839      0837 4
: 840      0838 4      FIB[FIB$W_DID_NUM] = .FIB[FIB$W_FID_NUM];
: 841      0839 4      FIB[FIB$W_DID_SEQ] = .FIB[FIB$W_FID_SEQ];
: 842      0840 4      FIB[FIB$W_DID_RVN] = .FIB[FIB$W_FID_RVN];
: 843      0841 3      END;
: 844      0842 3
: 845      0843 3      !+
: 846      0844 3      ! End of block that is exited when processing is complete. FINAL_STATUS
: 847      0845 3      ! contains the status that is to be returned to caller.
: 848      0846 3      !-
: 849      0847 3
: 850      0848 2      END; ! of block PROCESS
: 851      0849 2
: 852      0850 2      !+
: 853      0851 2      ! Deassign the channel and deallocate the event flag.
: 854      0852 2      !-
: 855      0853 2
: 856      0854 2      STATUS_6 = $DASSGN(CHAN=.CHANNEL);
: 857      0855 2      STATUS_7 = LIB$FREE_EF(EFN);
: 858      0856 2      IF NOT .STATUS_7 THEN RETURN .STATUS_7;
: 859      0857 2      IF NOT .STATUS_6 THEN RETURN .STATUS_6;
: 860      0858 2
: 861      0859 2      !+
: 862      0860 2      ! Return the status.
: 863      0861 2      !-
: 864      0862 2
: 865      0863 2      RETURN .FINAL_STATUS;
: 866      0864 1      END;

```

! End of routine LIB\$CREATE_DIR

.TITLE LIB\$CREATE_DIR LIB\$CREATE_DIR - Create director
.IDENT \V03-005\
.PSECT _LIB\$CODE,NOWRT, SHR, PIC,2

```
00000000 00000000 00020004 00000 P.AAA: .LONG 131076
31 3B 52 49 44 2E 00004 P.AAB: .LONG 0, 0, 0
00010 P.AAB: .ASCII \.DIR;1\

DIR_TYP_VER= P.AAB
.EXTRN LIB$ANALYZE_SDESC_R2
.EXTRN LIB$CVT_OTB, LIB$FREE_EF
.EXTRN LIB$GET_EF, LIB$INVARG
.EXTRN LIB$INVFILSPE, SYSSPARSE
.EXTRN SYSS$ASSIGN, SYSS$GETDVIW
.EXTRN SYSS$DASSGN, SYSS$QIOW

OFFC 00000 .ENTRY LIB$CREATE_DIR, Save R2,R3,R4,R5,R6,R7,R8,- 0132
R9,R10,R11
MOVAB SYSS$QIOW, R11
MOVAB -1708(SP), SP
MOVAB #16, P.AAA, DVI_ITMLST 0276
MOVAB DEV_ATTR, DVI_ITMLST+4 0266
TSTB (AP) 0321
BEQL 2$
MOVAB #0, (SP), #0, #80, $RMS_PTR 0328

0050 8F 00 6E 00 2C 0001E
      B0 AD 00025
      C6 AD 00027
      CF AD 0002D
      D8 AD 00031
0060 8F 00 6E 00 2C 00035
      FF50 CD 00038
      FF50 CD 00042
      FF58 CD 8F B0 00045
      FF5A CD 18 90 0004C
      FF5C CD 01 8E 00051
      FE50 CD 9E 00056
      04 AC D0 0005D
      00000000G 00 16 00061
      01 50 E8 00067
      04 04 0006A
      000000FF 8F 51 D1 0006B 1$:
      08 1B 00072
      50 00000000G 8F D0 00074 2$:
      04 0007B
      E4 AD 51 90 0007C 3$:
      DC AD 52 D0 00080
      B0 AD 9F 00084
      00000000G 00 01 FB 00087
      04 AE 50 D0 0008E
      05 04 AE E8 00092
      50 04 AE 9E 00096
      04 04 AE 04 0009A
      03 84 AD 06 E0 0009B 4$:
      00020107 8F 84 00E1 31 000A0 5$:
      F3 12 000AB 6$:
      59 8A AD 9A 000AD
      59 02 C2 000B1
      5A 98 AD 01 C1 000B4
      18 85 AD 05 E1 000B9

MOVAB #20483, $RMS_PTR
MOVAB #2, $RMS_PTR+22
MOVAB #2, $RMS_PTR+31
MOVAB NAM, $RMS_PTR+40
MOVAB #0, (SP), #0, #96, $RMS_PTR 0332

MOVAB #24578, $RMS_PTR
MOVAB #24, $RMS_PTR+8
MOVAB #1, $RMS_PTR+10
MOVAB ESA_BUFFER, $RMS_PTR+12
MOVAB DEV_DIR_SPEC, R0 0341
JSB LIB$ANALYZE_SDESC_R2
BLBS STATUS_1, 1$ 0342
RET
CMPL R1, #255 0346
BLEQU 3$
MOVL #LIB$INVARG, R0 0348
RET
MOVAB R1, FAB+52 0350
MOVL R2, FAB+44 0351
PUSHAB FAB 0360
CALLS #1, SYSSPARSE
MOVL R0, STATUS_2
BLBS STATUS_2, 2$ 0361
MOVAB STATUS_2, R0 0363
RET
BBS #6, NAM+52, 6$ 0369
BRW 13$
BITL NAM+52, #131335 0373
BNEQ 5$
MOVZBL NAM+58, DIR_LENGTH 0379
SUBL2 #2, DIR_LENGTH
ADDL3 #1, NAM+72, DIR_ADDRESS 0380
BBC #5, NAM+53, 7$ 0385
```


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50	98	BD	02	81	000BE	ADDB3	#2, @NAM+72, TERMINATOR	0396
6A		59	50	3A	000C3	LOCC	TERMINATOR, DIR_LENGTH, (DIR_ADDRESS)	0398
			D7	13	000C7	BEQL	5\$	
		56	51	D0	000C9	MOVL	R1, REALDIR_ADDRESS	0402
66	02	A6	50	28	000CC	MOVCS	R0, 2(REALDIR_ADDRESS), (REALDIR_ADDRESS)	0412
		59	02	C2	000D1	SUBL2	#2, DIR_LENGTH	0416
			03	11	000D4	BRB	8\$	
		56	5A	D0	000D6	7\$: MOVL	DIR_ADDRESS, REALDIR_ADDRESS	0423
23	86	AD	03	E1	000D9	8\$: BBC	#3, NAM+54, 9\$	0427
			08	AE	9F	PUSHAB	GROUP	0433
				56	DD	PUSHL	REALDIR_ADDRESS	
				03	DD	PUSHL	#3	
00000000G	00	B1		03	FB	CALLS	#3, LIB\$CVT_OTB	
				50	E9	BLBC	R0, 5\$	
			0C	AE	9F	PUSHAB	MEMBER	0439
			03	A6	9F	PUSHAB	3(REALDIR_ADDRESS)	
				03	DD	PUSHL	#3	
00000000G	00			03	FB	CALLS	#3, LIB\$CVT_OTB	
	9F			50	E9	BLBC	R0, 5\$	
	FE4A	CD	010E	8F	B0	MOVW	#270, TEMP_DESC+2	0446
	FE48	CD	89	AD	9B	MOVZBW	NAM+57, TEMP_DESC	0447
	FE4C	CD	94	AD	D0	MOVL	NAM+68, TEMP_DESC+4	0448
0040	8F	00		00	2C	MOVCS	#0, (SP), #0, #64, FIB	0452
				0260	CE			
	0260	CE	0501	8F	3C	MOVZWL	#1281, FIB	0453
	0264	CE	00040004	8F	D0	MOVL	#262148, FIB+4	0454
	0258	CE	40	8F	9A	MOVZBL	#64, FIB_DESC	0459
	025C	CE	0260	CE	9E	MOVAB	FIB, FIB_DESC+4	0460
	FE34	CD	FE38	CD	9E	MOVAB	NAME_BUFFER, NAME_DESC+4	0464
				7E	7C	CLRQ	-(SP)	0471
			18	AE	9F	PUSHAB	CHANNEL	
			FE48	CD	9F	PUSHAB	TEMP_DESC	
00000000G	00			04	FB	CALLS	#4, SYSS\$ASSIGN	
	19			50	E9	BLBC	STATUS_4, 10\$	0472
				7E	7C	CLRQ	-(SP)	0479
				7E	7C	CLRQ	-(SP)	
			FE20	CD	9F	PUSHAB	DVI ITMLST	
				7E	D4	CLRL	-(SP)	
	57		28	AE	3C	MOVZWL	CHANNEL, R7	
				57	DD	PUSHL	R7	
				7E	D4	CLRL	-(SP)	
00000000G	00			08	FB	CALLS	#8, SYSS\$GETDVIW	
	01			50	E8	BLBS	STATUS_4, 11\$	0480
				04	00171	RET		
04	03	AE		04	E1	BBC	#4, DEV_ATTR+3, 12\$	0481
	11		03	AE	E9	BLBC	DEV_ATTR+3, 14\$	
				57	DD	PUSHL	R7	0484
00000000G	00			01	FB	CALLS	#1, SYSS\$DASSGN	
	50	00000000G		8F	D0	MOVL	#LIB\$_INVFILSPE, R0	0485
				04	0018B	RET		
			14	AE	9F	PUSHAB	EFN	0492
00000000G	00			01	FB	CALLS	#1, LIB\$GET_EF	
	52			50	D0	MOVL	R0, STATUS_5	
	0C			52	E8	BLBS	STATUS_5, T5\$	0493
				57	DD	PUSHL	R7	0496
00000000G	00			01	FB	CALLS	#1, SYSS\$DASSGN	
			02C4	31	001A5	BRW	35\$	0497

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		58	14	AE	DO	001A8	15\$:	MOVL	EFN, R8	:	0562
	026A	CE	0264	CE	DO	001AC	16\$:	MOVL	FIB+4, FIB+10	:	0519
	026E	CE	0268	CE	BO	001B3		MOVW	FIB+8, FIB+14	:	0521
		53		5A	DO	001BA		MOVL	DIR_ADDRESS, NAME_ADDRESS	:	0535
6A		59		2E	3A	001BD		LOCC	#46, DIR_LENGTH, (DIR_ADDRESS)	:	0536
52		59		50	C3	001C1		SUBL3	R0, DIR_LENGTH, NAME_LENGTH	:	0537
		5A	01	A1	9E	001C5		MOVAB	1(R1), DIR_ADDRESS	:	0538
		59		70	9E	001C9		MOVAB	-(R0), DIR_LENGTH	:	0540
FE30	CD	52		06	A1	001CC		ADDW3	#6, NAME_LENGTH, NAME_DESC	:	0547
FE38	CD	63		52	28	001D2		MOV3	NAME_LENGTH, (NAME_ADDRESS), NAME_BUFFER	:	0548
	63	CF		06	28	001D8		MOV3	#6, DIR_TYP_VER, (R3)	:	0562
	FE1D			7E	7C	001DE		CLRQ	-(SP)	:	
				7E	7C	001E0		CLRQ	-(SP)	:	
			FE30	CD	9F	001E2		PUSHAB	NAME_DESC	:	
			026C	CE	9F	001E6		PUSHAB	FIB_DESC	:	
				7E	7C	001EA		CLRQ	-(SP)	:	
			0238	CE	9F	001EC		PUSHAB	IOSB	:	
				32	DD	001F0		PUSHL	#50	:	
				57	DD	001F2		PUSHL	R7	:	
				58	DD	001F4		PUSHL	R8	:	
		6B		0C	FB	001F6		CALLS	#12, SYSSQIOW	:	
		56		50	DO	001F9		MOVL	R0, FINAL_STATUS	:	
		05		56	E9	001FC		BLBC	FINAL_STATUS, 17\$	:	0563
		56	0218	CE	3C	001FF		MOVZWL	IOSB, FINAL_STATUS	:	
00000910		8F		56	D1	00204	17\$:	CMPL	FINAL_STATUS, #2320	:	0564
				0D	13	0020B		BEQL	19\$	:	
		07		56	E9	0020D		BLBC	FINAL_STATUS, 18\$	:	0565
				59	D5	00210		TSTL	DIR_LENGTH	:	0572
				98	14	00212		BGTR	16\$	:	
		56		01	DO	00214		MOVL	#1, FINAL_STATUS	:	0575
				0236	31	00217	18\$:	BRW	34\$	:	0576
				8F	DO	0021A	19\$:	MOVL	#262176, ATR	:	0592
0220	CE	00040020		CD	9E	00223		MOVAB	RECATTR, ATR+4	:	0593
0224	CE	FE00		8F	DO	0022A		MOVL	#196612, ATR+8	:	0595
0228	CE	00030004		CD	9E	00233		MOVAB	UCHAR, ATR+12	:	0596
022C	CE	FDFC		8F	DO	0023A		MOVL	#1441794, ATR+16	:	0598
0230	CE	00160002		CD	9E	00243		MOVAB	FPRO, ATR+20	:	0599
0234	CE	FDF8		8F	DO	0024A		MOVL	#1376260, ATR+24	:	0601
0238	CE	00150004		CD	9E	00253		MOVAB	UIC, ATR+28	:	0602
023C	CE	FDF4		8F	DO	0025A		MOVL	#655872, ATR+32	:	0604
0240	CE	000A0200		CE	9E	00263		MOVAB	HEADER, ATR+36	:	0605
0244	CE	02A0		CE	D4	0026A		CLRL	ATR+40	:	0606
		0248		CE	DO	0026E		MOVL	FIB+10, FIB+4	:	0614
0264	CE	026A		CE	3C	00275		MOVZWL	FIB+14, FIB+8	:	0616
0268	CE	026E		CE	D4	0027C		CLRL	FIB+12	:	0618
		026C		7E	D4	00280		CLRL	-(SP)	:	0632
			0224	CE	9F	00282		PUSHAB	ATR	:	
				7E	7C	00286		CLRQ	-(SP)	:	
				7E	D4	00288		CLRL	-(SP)	:	
			026C	CE	9F	0028A		PUSHAB	FIB_DESC	:	
				7E	7C	0028E		CLRQ	-(SP)	:	
			0238	CE	9F	00290		PUSHAB	IOSB	:	
				32	DD	00294		PUSHL	#50	:	
				57	DD	00296		PUSHL	R7	:	
				58	DD	00298		PUSHL	R8	:	
		6B		0C	FB	0029A		CALLS	#12, SYSSQIOW	:	
		56		50	DO	0029D		MOVL	R0, FINAL_STATUS	:	

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		05		56	E9	002A0	BLBC	FINAL_STATUS, 20\$	0633
		56	0218	CE	3C	002A3	MOVZWL	IOSB, FINAL_STATUS	
		03		56	E8	002A8	BLBS	FINAL_STATUS, 21\$	0634
				01A2	31	002AB	BRW	34\$	
			0240	CE	D4	002AE	CLRL	ATR+32	0642
	026A	CE	0264	CE	D0	002B2	MOVL	FIB+4, FIB+10	0648
	026E	CE	0268	CE	B0	002B9	MOVW	FIB+8, FIB+14	0650
	0276	CE	85	8F	9B	002C0	MOVZBW	#133, FIB+22	0659
		02	02A7	CE	91	002C6	CMPB	HEADER+7, #2	0660
				05	12	002CB	BNEQ	22\$	
	0278	CE		01	D0	002CD	MOVL	#1, FIB+24	
FE08	50	CE	0278	01	C1	002D2	ADDL3	#1, FIB+24, R0	0668
CD		50		10	9C	002D8	ROTL	#16, R0, RECATTR+8	
		02		6C	91	002DE	CMPB	(AP), #2	0676
				12	1F	002E1	BLSSU	23\$	
			08	AC	D5	002E3	TSTL	8(AP)	
			08	OD	13	002E6	BEQL	23\$	
			08	BC	D5	002E8	TSTL	@OWNER_UIC	0679
				1F	13	002EB	BEQL	25\$	
	FDF4	CD	08	BC	D0	002ED	MOVL	@OWNER_UIC, UIC	
				17	11	002F3	BRB	25\$	0676
OE	86	AD		03	E1	002F5	BBC	#3, NAM+54, 24\$	0682
	FDF6	CD	08	AE	B0	002FA	MOVW	GROUP, UIC+2	0685
	FDF4	CD	0C	AE	B0	00300	MOVW	MEMBER, UIC	0686
				04	11	00306	BRE	25\$	0682
			0238	CE	D4	00308	CLRL	ATR+24	0689
	FDF8	CD	8888	8F	A8	0030C	BISW2	#34952, FPRO	0695
				50	B4	00313	CLRW	LOCAL_ENABLE	0696
		03		6C	91	00315	CMPB	(AP), #3	0697
				09	1F	00318	BLSSU	26\$	
			0C	AC	D5	0031A	TSTL	12(AP)	
				04	13	0031D	BEQL	26\$	
		50	0C	BC	B0	0031F	MOVW	@PROT_ENABLE, LOCAL_ENABLE	0699
				51	B4	00323	CLRW	LOCAL_VALUE	0701
		04		6C	91	00325	CMPB	(AP), #4	0702
				09	1F	00328	BLSSU	27\$	
			10	AC	D5	0032A	TSTL	16(AP)	
				04	13	0032D	BEQL	27\$	
		51	10	BC	B0	0032F	MOVW	@PROT_VALUE, LOCAL_VALUE	0704
		52	FDF8	CD	3C	00333	MOVZWL	FPRO, R2	0706
		53		50	3C	00338	MOVZWL	LOCAL_ENABLE, R3	
		52		53	CA	0033B	BICL2	R3, R2	
		53		51	3C	0033E	MOVZWL	LOCAL_VALUE, R3	
		50		50	3C	00341	MOVZWL	LOCAL_ENABLE, R0	
		50		50	D2	00344	MCOML	R0, R0	
		53		50	CB	00347	BICL3	R0, R3, R0	
FDF8	50			52	A9	0034B	BISW3	R2, R0, FPRO	
CD		05		6C	91	00351	CMPB	(AP), #5	0712
				0B	1F	00354	BLSSU	28\$	
			14	AC	D5	00356	TSTL	20(AP)	
				06	13	00359	BEQL	28\$	
	FE1E	CD	14	BC	B0	0035B	MOVW	@MAX_VERSIONS, RECATTR+30	0714
		06		6C	91	00361	CMPB	(AP), #6	0721
				15	1F	00364	BLSSU	29\$	
			18	AC	D5	00366	TSTL	24(AP)	
				10	13	00369	BEQL	29\$	
	0280	CE		01	88	0036B	BISB2	#1, FIB+32	0724

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01FE	8F	00	18	AE	01	90	00370	MOVB	#2, FIB+33	0725
				6E	00	B0	00375	MOVW	@RVN, FIB+38	0726
						04	88	BISB2	#4, FIB+56	0733
						7E	D4	CLRL	-(SP)	0753
			0224		CE	9F	00382	PUSHAB	ATR	
					7E	7C	00386	CLRQ	-(SP)	
			FE30		CD	9F	00388	PUSHAB	NAME_DESC	
			026C		CE	9F	0038C	PUSHAB	FIB_DESC	
					7E	7C	00390	CLRQ	-(SP)	
			0238		CE	9F	00392	PUSHAB	IOSB	
			F3	7E	8F	9A	00396	MOVZBL	#243, -(SP)	
					57	DD	0039A	PUSHL	R7	
					58	DD	0039C	PUSHL	R8	
			6B		0C	FB	0039E	CALLS	#12, SYSSQIOW	
			56		50	D0	003A1	MOVL	R0, FINAL_STATUS	
			72		56	E9	003A4	BLBC	FINAL_STATUS, 32\$	0754
			56	0218	CE	3C	003A7	MOVZWL	IOSB, FINAL_STATUS	
			6A		56	E9	003AC	BLBC	FINAL_STATUS, 32\$	0755
			02	02A7	CE	91	003AF	CMPB	HEADER+7, #2	0762
					37	12	003B4	BNEQ	31\$	
					01	AE	003B6	MNEGW	#1, BLOCK_BUFFER	0768
					00	2C	003BA	MOVCS	#0, (SP), #0, #510, BLOCK_BUFFER+2	0769
				1A	AE		003C1			
					7E	7C	003C3	CLRQ	-(SP)	0777
				7E	01	7D	003C5	MOVQ	#1, -(SP)	
				7E	8F	3C	003C8	MOVZWL	#512, -(SP)	
			0200		AE	9F	003CD	PUSHAB	BLOCK_BUFFER	
			2C		7E	7C	003D0	CLRQ	-(SP)	
					CE	9F	003D2	PUSHAB	IOSB	
			0238		30	DD	003D6	PUSHL	#48	
					57	DD	003D8	PUSHL	R7	
					58	DD	003DA	PUSHL	R8	
			6B		0C	FB	003DC	CALLS	#12, SYSSQIOW	
			56		50	D0	003DF	MOVL	R0, FINAL_STATUS	
			6B		56	E9	003E2	BLBC	FINAL_STATUS, 34\$	0778
			56	0218	CE	3C	003E5	MOVZWL	IOSB, FINAL_STATUS	
			63		56	E9	003EA	BLBC	FINAL_STATUS, 34\$	0779
					7E	7C	003ED	CLRQ	-(SP)	0790
					7E	7C	003EF	CLRQ	-(SP)	
					7E	7C	003F1	CLRQ	-(SP)	
					7E	7C	003F3	CLRQ	-(SP)	
			0238		CE	9F	003F5	PUSHAB	IOSB	
					34	DD	003F9	PUSHL	#52	
					57	DD	003FB	PUSHL	R7	
					58	DD	003FD	PUSHL	R8	
			6B		0C	FB	003FF	CALLS	#12, SYSSQIOW	
			56		50	D0	00402	MOVL	R0, FINAL_STATUS	
			48		56	E9	00405	BLBC	FINAL_STATUS, 34\$	0791
			56	0218	CE	3C	00408	MOVZWL	IOSB, FINAL_STATUS	
			40		56	E9	0040D	BLBC	FINAL_STATUS, 34\$	0792
					59	D5	00410	TSTL	DIR_LENGTH	0798
					07	14	00412	BGTR	33\$	
			56	0619	8F	3C	00414	MOVZWL	#1561, FINAL_STATUS	0801
					35	11	00419	BRB	34\$	0802
					5A	D0	0041B	MOVL	DIR_ADDRESS, NAME_ADDRESS	0817
			53		2E	3A	0041E	LOCC	#46, DIR_LENGTH, (DIR_ADDRESS)	0818
			59		50	C3	00422	SUBL3	R0, DIR_LENGTH, NAME_LENGTH	0819

6A
52

LIB\$CREATE_DIR LIB\$CREATE_DIR - Create directory
V03-005 LIB\$CREATE_DIR - Create directory

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FE30	CD	5A	01	A1	9E	00426	MOVAB	1(R1), DIR_ADDRESS	:	0820
FE38	CD	59		70	9E	0042A	MOVAB	-(R0), DIR_LENGTH	:	0822
	63	52		06	A1	0042D	ADDW3	#6, NAME_LENGTH, NAME_DESC	:	0829
		63		52	28	00433	MOV3	NAME_LENGTH, (NAME_ADDRESS), NAME_BUFFER	:	0830
		CF		06	28	00439	MOV3	#6, DIR_TYP_VER, (R3)	:	
	FBBC	CE	0264	CE	D0	0043F	MOVL	FIB+4, FIB+10	:	0838
	026A	CE	0268	CE	B0	00446	MOVW	FIB+8, FIB+14	:	0840
	026E	CE		FF30	31	0044D	BRW	30\$	:	0739
				57	DD	00450	PUSHL	R7	:	0854
	00000000G	00		01	FB	00452	CALLS	#1, SYSSDASSGN	:	
		52		50	D0	00459	MOVL	R0, STATUS_6	:	
			14	AE	9F	0045C	PUSHAB	EFN	:	0855
	00000000G	00		01	FB	0045F	CALLS	#1, LIB\$FREE_EF	:	
		0A		50	E9	00466	BLBC	STATUS_7, 37\$	:	0856
		04		52	E8	00469	BLBS	STATUS_6, 36\$	:	0857
		50		52	D0	0046C	MOVL	STATUS_6, R0	:	
				04	0046F		RET		:	
		50		56	D0	00470	MOVL	FINAL_STATUS, R0	:	0863
				04	00473	37\$:	RET		:	0864

; Routine Size: 1140 bytes, Routine Base: _LIB\$CODE + 0016

:	867	0865	1		
:	868	0866	1	END	! End of module LIB\$CREATE_DIR
:	869	0867	0	ELUDOM	

PSECT SUMMARY

Name	Bytes	Attributes
_LIB\$CODE	1162	NOVEC,NOWRT, RD , EXE, SHR, LCL, REL, CON, PIC,ALIGN(2)

Library Statistics

File	Symbols		Pages Mapped	Processing Time
	Total	Loaded Percent		
_\$255\$DUA28:[SYSLIB]LIB.L32;1	18619	133 0	1000	00:01.4

COMMAND QUALIFIERS

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

LIB\$CREATE_DIR LIB\$CREATE_DIR - Create directory
V03-005 LIB\$CREATE_DIR - Create directory

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;)
; Size: 1140 code + 22 data bytes
; Run Time: 00:19.0
; Elapsed Time: 01:18.7
; Lines/CPU Min: 2735
; Lexemes/CPU-Min: 33495
; Memory Used: 387 pages
; Compilation Complete

LI
2-

0204 AH-BT13A-SE
VAX/VMS V4.0

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