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MM      MM      AAAAAA      KK      KK      SSSSSSSS      TTTTTTTTTT      RRRRRRRR
MM      MM      AAAAAA      KK      KK      SSSSSSSS      TTTTTTTTTT      RRRRRRRR
MMMM    MMMM    AA          AA      KK      KK      SS          TT          RR          RR
MMMM    MMMM    AA          AA      KK      KK      SS          TT          RR          RR
MM      MM      AA          AA      KK      KK      SS          TT          RR          RR
MM      MM      AA          AA      KK      KK      SS          TT          RR          RR
MM      MM      AA          AA      KKKKKK      SSSSSS      TT          RRRRRRRR
MM      MM      AA          AA      KKKKKK      SSSSSS      TT          RRRRRRRR
MM      MM      AAAAAAAAAA      KK      KK      SS          TT          RR          RR
MM      MM      AAAAAAAAAA      KK      KK      SS          TT          RR          RR
MM      MM      AA          AA      KK      KK      SS          TT          RR          RR
MM      MM      AA          AA      KK      KK      SSSSSSSS      TT          RR          RR
MM      MM      AA          AA      KK      KK      SSSSSSSS      TT          RR          RR

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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

```



```

1 0001 0 MODULE MAKSTR (
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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26 0026 1 *  SOFTWARE ON EQUIPMENT WHICH IS NOT SUPPLIED BY DIGITAL.
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 1
34 0034 1
35 0035 1 ABSTRACT:
36 0036 1
37 0037 1     This routine converts a RAD-50 file name block into the
38 0038 1     equivalent ASCII name string.
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: 3-Jan-1977 11:11
49 0049 1
50 0050 1 MODIFIED BY:
51 0051 1
52 0052 1     V03-002 CDS0001      Christian D. Saether      4-May-1983
53 0053 1     Make decriptor pic.
54 0054 1
55 0055 1     V03-001 ACG0302      Andrew C. Goldstein,    3-Dec-1982 11:30
56 0056 1     Add support for $ and _ chars in file names
57 0057 1

```

```

: 58      0058 1 : V02-001 ACG0186      Andrew C. Goldstein, 4-Feb-1981 21:19
: 59      0059 1 :           Fix garbage in high word of returned length
: 60      0060 1 :
: 61      0061 1 : V02-000 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 'SYSSLIBRARY:LIB.L32';
: 67      0067 1 REQUIRE 'SRCS:FCPDEF.B32';

```

```

69 1058 1 GLOBAL ROUTINE MAKE_STRING (NAMEBLOCK, STRING) =
70 1059 1
71 1060 1  !**
72 1061 1
73 1062 1 FUNCTIONAL DESCRIPTION:
74 1063 1
75 1064 1     This routine converts a RAD-50 file name block into the
76 1065 1     equivalent ASCII name string.
77 1066 1
78 1067 1 CALLING SEQUENCE:
79 1068 1     MAKE_STRING (ARG1, ARG2)
80 1069 1
81 1070 1 INPUT PARAMETERS:
82 1071 1     ARG1: address of file name block
83 1072 1
84 1073 1 IMPLICIT INPUTS:
85 1074 1     NONE
86 1075 1
87 1076 1 OUTPUT PARAMETERS:
88 1077 1     ARG2: address of buffer for string
89 1078 1
90 1079 1 IMPLICIT OUTPUTS:
91 1080 1     NONE
92 1081 1
93 1082 1 ROUTINE VALUE:
94 1083 1     length of string generated
95 1084 1
96 1085 1 SIDE EFFECTS:
97 1086 1     NONE
98 1087 1
99 1088 1  !--
100 1089 1
101 1090 2 BEGIN
102 1091 2
103 1092 2 MAP
104 1093 2     NAMEBLOCK      : REF BBLOCK,      ! name block argument
105 1094 2     STRING        : REF VECTOR [,BYTE]; ! string buffer arg
106 1095 2
107 1096 2 LOCAL
108 1097 2     BLOCKP          : REF VECTOR [,WORD], ! pointer into name block
109 1098 2     STRINGP         : REF VECTOR [,BYTE], ! pointer into string
110 1099 2     CHARS           : VECTOR [3, BYTE], ! holding place for characters
111 1100 2     FORMAT          : VECTOR [2],      ! FAO control string descriptor
112 1101 2     STRINGD         : VECTOR [2];      ! string descriptor for FAO
113 1102 2
114 1103 2 BIND
115 1104 2     DELIMITER       = UPLIT BYTE (';','.')
116 1105 2     : VECTOR [,BYTE]; ! type and version delimiters
117 1106 2
118 1107 2
119 1108 2 ! Set up the pointers. Then start     the outer loop, which iterates
120 1109 2 ! over name and type fields.
121 1110 2
122 1111 2
123 1112 2 BLOCKP = NAMEBLOCK[NMBSW_NAME];
124 1113 2 STRINGP = .STRING;
125 1114 2

```

```

126 1115 2  DECR K FROM 2 TO 1 DO
127 1116     BEGIN
128 1117
129 1118     ! The next loop iterates over the RAD-50 words in the name block.
130 1119     ! There are 3 words for name, 1 for type. Expand each word into
131 1120     ! the 3 RAD-50 characters.
132 1121
133 1122
134 1123     DECR I FROM (IF .K THEN 1 ELSE 3) TO 1 DO
135 1124     BEGIN
136 1125     CHARS[0] = .BLOCKP[0] / (40*40);
137 1126     CHARS[1] = .BLOCKP[0]/40 MOD 40;
138 1127     CHARS[2] = .BLOCKP[0] MOD 40;
139 1128
140 1129     ! Now convert each character into the correct ASCII code and store it
141 1130     ! in the string buffer if it is not null.
142 1131
143 1132
144 1133     INCR J FROM 0 TO 2 DO
145 1134     IF .CHARS[J] NEQ 0
146 1135     THEN
147 1136     BEGIN
148 1137     STRINGP[0] =
149 1138     (
150 1139     IF .CHARS[J] LSS 27
151 1140     THEN .CHARS[J] - 1 + 'A'
152 1141     ELSE IF .CHARS[J] EQL 27
153 1142     THEN '$'
154 1143     ELSE IF .CHARS[J] EQL 28
155 1144     THEN '.'
156 1145     ELSE IF .CHARS[J] EQL 29
157 1146     THEN '!'
158 1147     ELSE .CHARS[J] - 30 + '0'
159 1148     );
160 1149     STRINGP = .STRINGP + 1;
161 1150     END;
162 1151     BLOCKP = .BLOCKP + 2;           ! move to next word
163 1152     END;                           ! end of word loop
164 1153
165 1154     ! At the end of each field, insert the appropriate field delimiter.
166 1155
167 1156
168 1157     STRINGP[0] = .DELIMITER[K];
169 1158     STRINGP = .STRINGP + 1;
170 1159     END;                             ! end of outer loop
171 1160
172 1161     ! Now build a descriptor for the remainder of the string buffer and
173 1162     ! call FA0 to convert the version number.
174 1163
175 1164
176 1165     STRINGD[0] = 6;
177 1166     STRINGD[1] = .STRINGP;
178 1167     PIC DESC ('!SW', FORMAT);
179 1168     $FA0 (FORMAT, STRINGD[0], STRINGD[0], .BLOCKP[0]);
180 1169
181 1170     RETURN .STRINGP + .STRINGD[0] - .STRING;   ! final byte count
182 1171

```

: 183 1172 1 END;

end of routine MAKE_STRING

								.TITLE		MAKSTR			
								.IDENT		\V04-000\			
								.PSECT		SCODES, NOWRT, 2			
								P.AAA:		.ASCII \ ;.\		:	
								.BLKB		1			
								P.AAB:		.ASCII \!SW\<0>		:	
								DELIMITER=		P.AAA			
								.EXTRN		SYSSFAO			
								.ENTRY		MAKE_STRING, Save R2,R3,R4,R5,R6		: 1058	
								SUBL2		#20, SP		:	
								ADDL3		#6, NAMEBLOCK, BLOCKP		: 1112	
								MOVL		STRING, STRINGP		: 1113	
								MOVL		#2, K		: 1115	
								BLBC		K, 2\$: 1123	
								MOVL		#1, R6			
								BRB		3\$			
								MOVL		#3, R6			
								INCL		I			
								BRB		12\$			
								MOVZWL		(BLOCKP), R1		: 1125	
								DIVL2		#1600, R1			
								MOVB		R1, CHARS			
								MOVZWL		(BLOCKP), R1		: 1126	
								DIVL2		#40, R1			
								EMUL		#1, R1, #0, -(SP)			
								EDIV		#40, (SP)+, R1, R1			
								MOVB		R1, CHARS+1			
								MOVZWL		(BLOCKP), R1		: 1127	
								EMUL		#1, R1, #0, -(SP)			
								EDIV		#40, (SP)+, R1, R1			
								MOVB		R1, CHARS+2			
								CLRL		J		: 1133	
								MOVZBL		CHARS[J], R3		: 1134	
								BEQL		11\$			
								CMPB		R3, #27		: 1139	
								BGEQU		6\$			
								MOVAB		64(R3), R4		: 1140	
								MOVL		R4, R3			
								BRB		10\$			
								BNEQ		7\$: 1141	
								MOVL		#36, R3			
								BRB		10\$			
								CMPB		R3, #28		: 1143	
								BNEQ		8\$			
								MOVL		#46, R3			
								BRB		10\$			
								CMPB		R3, #29		: 1145	
								BNEQ		9\$			
								MOVZBL		#95, R3			
								BRB		10\$			

	53		12	C0	00084	98:	ADDL2	#18, R3	:	1147
	82		53	90	00087	108:	MOVB	R3, (STRINGP)+	:	1138
C6	51		02	F3	0008A	118:	AOBLEQ	#2, J, 58	:	1134
	50		02	C0	0008E		ADDL2	#2, BLOCKP	:	1151
	8C		56	F5	00091	128:	SOBGTR	I, 48	:	1123
	82	FF5F	CF45	90	00094		MOVB	DELIMITER[K], (STRINGP)+	:	1157
	02		55	F5	0009A		SOBGTR	K, 138	:	1115
			03	11	0009D		BRB	148	:	
			FF6F	31	0009F	138:	BRW	18	:	
04	AE		06	D0	000A2	148:	MOVL	#6, STRINGD	:	1165
08	AE		52	D0	000A6		MOVL	STRINGP, STRINGD+4	:	1166
0C	AE		03	D0	000AA		MOVL	#3, FORMAT	:	1167
10	AE	FF4A	CF	9E	000AE		MOVAB	P.AAB, FORMAT+4	:	
	7E		60	3C	000B4		MOVZWL	(BLOCKP), -(SP)	:	1168
			08	AE	9F	000B7	PUSHAB	STRINGD	:	
			0C	AE	9F	000BA	PUSHAB	STRINGD	:	
			18	AE	9F	000BD	PUSHAB	FORMAT	:	
00000000G	00		04	FB	000C0		CALLS	#4, SYSSFA0	:	
	52	04	AE	C0	000C7		ADDL2	STRINGD, R2	:	1170
	52	08	AC	C2	000CB		SUBL2	STRING, R2	:	
	50		52	D0	000CF		MOVL	R2, R0	:	
			04	000D2			RET		:	1172

; Routine Size: 211 bytes, Routine Base: \$CODE\$ + 0008

```

: 184      1173  1
: 185      1174  1 END
: 186      1175  0 ELUDOM

```

PSECT SUMMARY

Name	Bytes	Attributes
\$CODE\$	219	NOVEC, NOWRT, RD, EXE, NOSHR, LCL, REL, CON, NOPIC, ALIGN(2)

Library Statistics

File	----- Total	Symbols Loaded	----- Percent	Pages Mapped	Processing Time
_S255\$DUA28:[SYSLIB]LIB.L32;1	18619	19	0	1000	00:01.8

MAKSTR
V04-000

M 10
16-Sep-1984 00:44:54
14-Sep-1984 12:30:35

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

MAT
V04-

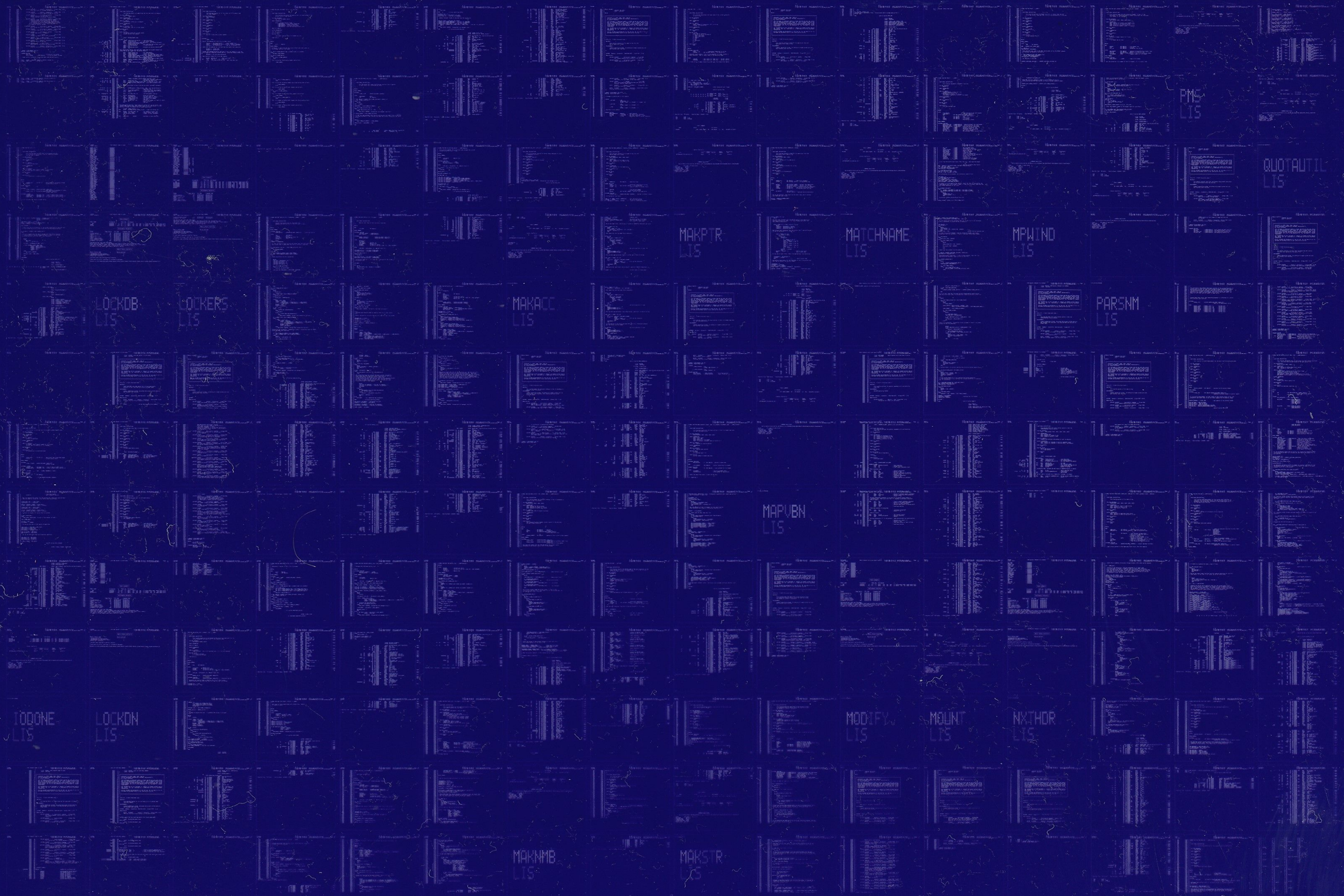
COMMAND QUALIFIERS

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

: Size: 211 code + 8 data bytes
: Run Time: 00:10.3
: Elapsed Time: 00:25.3
: Lines/CPU Min: 6871
: Lexemes/CPU-Min: 27339
: Memory Used: 139 pages
: Compilation Complete

0171 AH-BT13A-SE
VAX/VMS V4.0

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MAKACC
LIS

PARSNM
LIS

MAPVBN
LIS

TODONE
LIS

LOCKDN
LIS

MODIFY
LIS

MOUNT
LIS

MYTHOR
LIS

MAKNMB
LIS

MAKSTR
LIS