


```
1 0001 0 MODULE setmain (IDENT='V04-000',
2 0002 0     MAIN=set$start,
3 0003 0     ADDRESSING MODE (EXTERNAL=GENERAL,
4 0004 0     NONEXTERNAL=LONG_RELATIVE)
5 0005 0 ) =
6 0006 1 BEGIN
7 0007 1
8 0008 1
9 0009 1 *****
10 0010 1 *
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28 0028 1 *
29 0029 1 *
30 0030 1 *****
31 0031 1
32 0032 1
33 0033 1 ++
34 0034 1
35 0035 1 FACILITY: SET utility
36 0036 1
37 0037 1 ABSTRACT:
38 0038 1     This module contains the command processing and dispatch routines.
39 0039 1
40 0040 1 ENVIRONMENT:
41 0041 1     VAX native, user mode.
42 0042 1
43 0043 1 AUTHOR: Gerry Smith          CREATION DATE: 10-Mar-1983
44 0044 1
45 0045 1 MODIFIED BY:
46 0046 1
47 0047 1     V03-006 JLV0344          Jake VanNoy          8-APR-1984
48 0048 1     Fix problem that option=keyword caused in not matching
49 0049 1     option.
50 0050 1
51 0051 1     V03-005 BLS0291          Benn Schreiber          24-MAR-1984
52 0052 1     Move SET PASSWORD into SETPO
53 0053 1
54 0054 1     V03-004 PRB0320          Paul Beck          11-Mar-1984 12:56
55 0055 1     Add entry for SET CLUSTER
56 0056 1
57 0057 1     V03-003 GAS0175          Gerry Smith          25-Aug-1983
```

SETMAIN
V04-000

8 10
16-Sep-1984 00:43:16
14-Sep-1984 12:09:10

VAX-11 Bliss-32 V4.0-742
[CLIUTL.SRC]SETMAIN.B32;1

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(1)

: 58
: 59
: 60
: 61
: 62
: 63
: 64
: 65
: 66

0058 1 |
0059 1 |
0060 1 |
0061 1 |
0062 1 |
0063 1 |
0064 1 |
0065 1 |
0066 1 |--

Add SHOW BROADCAST.

V03-002 GAS0153 Gerry Smith 7-Jul-1983
Add SET AUDIT.

V03-001 GAS0115 Gerry Smith 4-Apr-1983
Include SET LOGINS, which was inadvertently left out.

```

: 68      0067 1 LIBRARY 'SYSS$LIBRARY:STARLET';           ! VAX/VMS common definitions
: 69      0068 1
: 70      0069 1
: 71      0070 1
: 72      0071 1 Macro to set up two associated tables. The first table is a list of
: 73      0072 1 descriptor addresses. These descriptors contain the option names.
: 74      0073 1 The second table is a corresponding list of addresses of option routines.
: 75      0074 1
: 76      0075 1 If a new option is added to SET, all that is required in this
: 77      0076 1 module is to add one line of code, the option name, e.g. WORKING_SET.
: 78      0077 1 Then, the name of the global routine that is dispatched to from this
: 79      0078 1 routine will be named SET$WORKING_SET.
: 80      0079 1 MACRO
: 81      0080 1
: 82      0081 1 option_name [option] = %EXACTSTRING(4, 0, option)%,
: 83      0082 1
: 84      0083 1 option_address [option] = %NAME(%STRING('set$',%STRING(option)))%,
: 85      0084 1
: 86      0085 1 option_declare [option] = %NAME(%STRING('set$',%STRING(option))) : NOVALUE%,
: 87      0086 1
: 88      M 0087 1 make_table (name) =
: 89      M 0088 1     [LITERAL %NAME(%STRING(name,'_table length')) = %LENGTH - 1;
: 90      M 0089 1     EXTERNAL ROUTINE option_declare(%REMAINING);
: 91      M 0090 1     OWN
: 92      M 0091 1         %NAME(%STRING(name,'_option')) : VECTOR[%LENGTH - 1]
: 93      M 0092 1         INITIAL (option_name(%REMAINING)),
: 94      M 0093 1
: 95      M 0094 1         %NAME(%STRING(name,'_routine')) : VECTOR[%LENGTH - 1]
: 96      0095 1         INITIAL (option_address(%REMAINING));%;
: 97      0096 1

```

```

: 99      0097 1 FORWARD ROUTINE
: 100     0098 1   set$start,
: 101     0099 1   handler;
: 102     0100 1
: 103     0101 1 EXTERNAL ROUTINE
: 104     0102 1   lib$put_output,
: 105     0103 1   cli$get_value,
: 106     0104 1   cli$present;
: 107     0105 1
: 108     0106 1 GLOBAL set$exit_status : $BLOCK[4]
: 109     0107 1   INITIAL(1);
: 110     0108 1
: 111     0109 1
: 112     P 0110 1 $SHR_MSGDEF (SET, 119, LOCAL,
: 113     0111 1   (badlogic, error));
: 114     0112 1
: 115     0113 1   ! Set up a table of all options, and another table pointing to the address
: 116     0114 1   ! of the routine for each option.
: 117     0115 1   !
: 118     0116 1
: 119     P 0117 1 make_table (set,
: 120     P 0118 1   accounting,
: 121     P 0119 1   audit,
: 122     P 0120 1   broadcast,
: 123     P 0121 1   card_reader,
: 124     P 0122 1   cluster,
: 125     P 0123 1   day,
: 126     P 0124 1   device,
: 127     P 0125 1   directory,
: 128     P 0126 1   file,
: 129     P 0127 1   login,
: 130     P 0128 1   magtape,
: 131     P 0129 1   printer,
: 132     P 0130 1   process,
: 133     P 0131 1   protection,
: 134     P 0132 1   rms_default,
: 135     P 0133 1   terminal,
: 136     P 0134 1   time,
: 137     P 0135 1   volume,
: 138     0136 1   working_set);
: 139     0137 1
: 140     0138 1

```

```
142 0139 1 ROUTINE set$start =
143 0140 2 BEGIN
144 0141 3
145 0142 4 |---
146 0143 5 |
147 0144 6 | This is the main program. It gathers all the command inputs, and then
148 0145 7 | dispatches to the appropriate routines.
149 0146 8 |
150 0147 9 |---
151 0148 10
152 0149 11 LOCAL
153 0150 12     loc_char,
154 0151 13     status,
155 0152 14     option : $BBLOCK[dsc$c_s_bln];
156 0153 15
157 0154 16 ENABLE handler;                               ! Enable the condition handler
158 0155 17
159 0156 18 |
160 0157 19 | Interrogate the CLI to determine which option one was requested, and
161 0158 20 | dispatch to the appropriate routine.
162 0159 21 |
163 0160 22 $init_dyndesc(option);
164 0161 23
165 0162 24 IF NOT (status = cli$get_value(%ASCID 'OPTION', option))
166 0163 25 THEN
167 0164 26     BEGIN
168 0165 27     SIGNAL_STOP(.status);
169 0166 28     END;
170 0167 29
171 0168 30 option[dsc$w_length] = MINU (.option[dsc$w_length], 4);
172 0169 31
173 0170 32 |
174 0171 33 | look for xxx=yyy to trim length of search string.
175 0172 34 |
176 0173 35
177 0174 36 loc_char=CH$FIND_CH (.option[dsc$w_length], .option[dsc$a_pointer], %ASCII '=');
178 0175 37 If .loc_char NEQ 0 THEN
179 0176 38     option[dsc$w_length] = .loc_char - .option[dsc$a_pointer];
180 0177 39
181 0178 40 loc_char=CH$FIND_CH (.option[dsc$w_length], .option[dsc$a_pointer], %ASCII ':');
182 0179 41 If .loc_char NEQ 0 THEN
183 0180 42     option[dsc$w_length] = .loc_char - .option[dsc$a_pointer];
184 0181 43
185 0182 44 set$exit_status = set$_badlogic;           ! if loop fails, exit with error
186 0183 45
187 0184 46 INCR index FROM 0 TO set_table_length - 1 DO
188 0185 47     BEGIN
189 0186 48     IF CH$EQL(.option[dsc$w_length], .option[dsc$a_pointer],
190 0187 49     .option[dsc$w_length], set_option[.index])
191 0188 50     THEN
192 0189 51     BEGIN
193 0190 52     set$exit_status = 1;
194 0191 53     (.set_routine[.index])();
195 0192 54     EXITLOOP
196 0193 55     END;
197 0194 56 END;
198 0195 57
```

```

: 199      0196 2 IF .set$exit_status NEQ set$_badlogic
: 200      0197     THEN
: 201      0198         set$exit_status = .set$exit_status OR sts$m_inhib_msg;
: 202      0199
: 203      0200 RETURN .set$exit_status;      ! Exit
: 204      0201 1 END;

```

```

.TITLE SETMAIN
.IDENT \V04-000\
.PSECT $SPLITS$,NOWRT,NOEXE,2

```

```

00 00 4E 4F 49 54 50 4F 00000 P.AAB: .ASCII \OPTION\<><0>
010E0006 00008 P.AAA: .LONG 17694726
00000000 0000C .ADDRESS P.AAB

```

```

.PSECT $OWNS$,NOEXE,2

```

```

4F 43 43 41 00000 SET_OPTION:
49 44 55 41 00004 .ASCII \ACCO\
41 4F 52 42 00008 .ASCII \AUDI\
44 52 41 43 0000C .ASCII \BROA\
53 55 4C 43 00010 .ASCII \CARD\
00 59 41 44 00014 .ASCII \CLUS\
49 56 45 44 00018 .ASCII \DAY\<>
45 52 49 44 0001C .ASCII \DEVI\
45 4C 49 46 00020 .ASCII \DIRE\
49 47 4F 4C 00024 .ASCII \FILE\
54 47 41 4D 00028 .ASCII \LOGI\
4E 49 52 50 0002C .ASCII \MAGT\
43 4F 52 50 00030 .ASCII \PRIN\
54 4F 52 50 00034 .ASCII \PROC\
5F 53 4D 52 00038 .ASCII \PROT\
4D 52 45 54 0003C .ASCII \RMS \
45 4D 49 54 00040 .ASCII \TERM\
55 4C 4F 56 00044 .ASCII \TIME\
4B 52 4F 57 00048 .ASCII \VOLU\
                     .ASCII \WORK\

```

```

00000000G 00000000G 00000000G 00000000G 00000000G 00000000G 0004C SET_ROUTINE:
00000000G 00000000G 00000000G 00000000G 00000000G 00000000G 00064
00000000G 00000000G 00000000G 00000000G 00000000G 00000000G 0007C
                     00000000G 00094

```

```

.ADDRESS SET$ACCOUNTING, SET$AUDIT, -
          SET$BROADCAST, SET$CARD READER, -
          SET$CLUSTER, SET$DAY, SET$DEVICE, -
          SET$DIRECTORY, SET$FILE, SET$LOGIN, -
          SET$MAGTAPE, SET$PRINTER, SET$PROCESS, -
          SET$PROTECTION, SET$RMS_DEFAULT, -
          SET$TERMINAL, SET$TIME, SET$VOLUME, -
          SET$WORKING_SET

```

```

.PSECT $GLOBAL$,NOEXE,2

```

```

00000001 00000 SET$EXIT_STATUS:
.LONG 1

```

```

.EXTRN LIB$PUT OUTPUT, CLISGET VALUE
.EXTRN CLISPRESENT, SET$ACCOUNTING
.EXTRN SET$AUDIT, SET$BROADCAST

```

```
.EXTRN SETSCARD READER
.EXTRN SET$CLUSTER, SET$DAY
.EXTRN SET$DEVICE, SET$DIRECTORY
.EXTRN SET$FILE, SET$LOGIN
.EXTRN SET$MAGTAPE, SET$PRINTER
.EXTRN SET$PROCESS, SET$PROTECTION
.EXTRN SET$RMS DEFAULT
.EXTRN SET$TERMINAL, SET$TIME
.EXTRN SET$VOLUME, SET$WORKING_SET

.PSECT $CODE$,NOWRT,2
```

003C 00000 SET\$START:

		55	00000000'	EF	9E	00002	.WORD	Save R2,R3,R4,R5	:	0139
		5E		04	C2	00009	MOVAB	SET\$EXIT_STATUS, R5	:	
		6D	0094	CF	DE	0000C	SUBL2	#4, SP	:	0140
			020E0000	8F	DD	00011	MOVAL	11\$, (FP)	:	0160
			04	AE	D4	00017	PUSHL	#34471936	:	
				5E	DD	0001A	CLRL	OPTION+4	:	0162
			00000000'	EF	9F	0001C	PUSHL	SP	:	
	00000000G	00		02	FB	00022	PUSHAB	P.AAA	:	
		09		50	E8	00029	CALLS	#2, CLISGET_VALUE	:	
				50	DD	0002C	BLBS	STATUS, 1\$:	0165
	00000000G	00		01	FB	0002E	PUSHL	STATUS	:	
		50		6E	3C	00035	CALLS	#1, LIB\$STOP	:	0168
		04		50	B1	00038	MOVZWL	OPTION, R0	:	
				50	B0	0003D	CMPW	R0, #4	:	
		50		03	1B	0003B	BLEQU	2\$:	
		6E		04	D0	0003D	MOVL	#4, R0	:	
04	BE	6E		50	B0	00040	MOVW	R0, OPTION	:	
				3D	3A	00043	LOCC	#61, OPTION, @OPTION+4	:	0174
				02	12	00048	BNEQ	3\$:	
				51	D4	0004A	CLRL	R1	:	
				51	D5	0004C	TSTL	LOC_CHAR	:	0175
				05	13	0004E	BEQL	4\$:	
		51	04	AE	A3	00050	SUBW3	OPTION+4, LOC_CHAR, OPTION	:	0176
04	BE	6E		3A	3A	00055	LOCC	#58, OPTION, @OPTION+4	:	0178
				02	12	0005A	BNEQ	5\$:	
				51	D4	0005C	CLRL	R1	:	
				51	D5	0005E	TSTL	LOC_CHAR	:	0179
				05	13	00060	BEQL	6\$:	
	6E	51	04	AE	A3	00062	SUBW3	OPTION+4, LOC_CHAR, OPTION	:	0180
		65	00771122	8F	D0	00067	MOVL	#7803170, SET\$EXIT_STATUS	:	0182
				54	D4	0006E	CLRL	INDEX	:	0186
			00000000'	EF	44	00070	PUSHAL	SET OPTION[INDEX]	:	0187
		9E	08	BE	AE	29	CMPC3	OPTION, @OPTION+4, @(SP)+	:	
			04	10	12	0007D	BNEQ	8\$:	
				65	01	0007F	MOVL	#1, SET\$EXIT_STATUS	:	0190
			00000000'	EF	44	00082	MOVL	SET_ROUTINE[INDEX], R0	:	0191
				60	00	0008A	CALLS	#0, -(R0)	:	
				04	11	0008D	BRB	9\$:	0189
	DD	54		12	F3	0008F	AOBLEQ	#18, INDEX, 7\$:	0184
		00771122		65	D1	00093	CMP	SET\$EXIT_STATUS, #7803170	:	0196
				04	13	0009A	BEQL	10\$:	
		03	A5	10	88	0009C	BISB2	#16, SET\$EXIT_STATUS+3	:	0198
			50	65	D0	000A0	MOVL	SET\$EXIT_STATUS, R0	:	0200
				04	000A3		RET		:	0201


```

: 206      0202 1 ROUTINE handler (sigargs, mechargs) =
: 207      0203 BEGIN
: 208      0204
: 209      0205 |---
: 210      0206
: 211      0207 | This routine is a condition handler established by the main
: 212      0208 | routine. It saves the most severe condition for the exit status.
: 213      0209 |---
: 214      0210
: 215      0211
: 216      0212 MAP
: 217      0213     sigargs : REF $BBLOCK,
: 218      0214     mechargs : REF $BBLOCK;
: 219      0215 BIND
: 220      0216     signame = sigargs[chf$l_sig_name] : $BBLOCK;           ! Name of signal
: 221      0217
: 222      0218
: 223      0219 IF .set$exit_status EQL 1                                ! If no errors yet, use
: 224      0220 THEN set$exit_status = .signame;                       ! this one.
: 225      0221
: 226      0222 IF NOT .signame                                           ! If an error signal
: 227      0223 AND .signame[sts$v_severity]                             ! and severity is worse
: 228      0224 GTRU . $BBLOCK[set$exit_status, sts$v_severity] ! than current saved severity
: 229      0225 THEN set$exit_status = .signame;                       ! then save it for exit
: 230      0226
: 231      0227 RETURN ss$_resignal;                                     ! Resignal to get message
: 232      0228 1 END;

```

				0004 0000	HANDLER: .WORD	Save R2	: 0202
		52 00000000'	EF 9E 00002		MOVAB	SET\$EXIT_STATUS, R2	: 0216
	50	04 AC	04 C1 00009		ADDL3	#4, SIGARGS, R0	: 0219
		01	62 D1 0000E		CMPL	SET\$EXIT_STATUS, #1	: 0220
			03 12 00011		BNEQ	1\$: 0222
		62	60 D0 00013		MOVL	(R0), SET\$EXIT_STATUS	: 0224
		0F	60 E8 00016	1\$:	BLBS	(R0), 2\$: 0225
51	62	03	00 EF 00019		EXTZV	#0, #3, SET\$EXIT_STATUS, R1	: 0227
51	60	03	00 ED 0001E		CMPZV	#0, #3, (R0), R1	: 0228
			03 1B 00023		BLEQU	2\$: 0229
		62	60 D0 00025		MOVL	(R0), SET\$EXIT_STATUS	: 0230
		50 0918	8F 3C 00028	2\$:	MOVZWL	#2328, R0	: 0231
			04 0002D		RET		: 0232

: Routine Size: 46 bytes, Routine Base: \$CODE\$ + 00B6

: 234 0229 1 END
: 235 0230 0 ELUDOM

.EXTRN LIB\$STOP

PSECT SUMMARY

Name	Bytes	Attributes
\$GLOBALS	4	NOVEC, WRT, RD, NOEXE, NOSHR, LCL, REL, CON, NOPIC, ALIGN(2)
\$OWNS	152	NOVEC, WRT, RD, NOEXE, NOSHR, LCL, REL, CON, NOPIC, ALIGN(2)
\$PLITS	16	NOVEC, NOWRT, RD, NOEXE, NOSHR, LCL, REL, CON, NOPIC, ALIGN(2)
\$CODES	228	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]STARLET.L32;1	9776	18	0	581	00:01.0

COMMAND QUALIFIERS

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

: Size: 228 code + 172 data bytes
: Run Time: 00:06.9
: Elapsed Time: 00:23.6
: Lines/CPU Min: 2000
: Lexemes/CPU-Min: 23956
: Memory Used: 79 pages
: Compilation Complete

0053 AH-BT13A-SE
VAX/VMS V4.0

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The image displays a grid of 140 terminal windows, arranged in 10 rows and 14 columns. Each window shows a different terminal session with various system commands and their outputs. The windows are organized into several groups, each with a title:

- SETFILE LIS** (top-left group)
- SETPOMESS LIS** (middle-right group)
- SETP001SP LIS** (lower-middle group)
- SETMISC LIS** (lower-middle group)
- SETPRO LIS** (bottom-right group)
- SETMAIN LIS** (bottom-left group)

Each terminal window contains text-based data, including command prompts, file listings, and system status information. The text is monospaced and appears as light-colored characters on a dark background.