

```

SSSSSSSSSSSSS  MMM      MMM      GGGGGGGGGGG  RRRRRRRRRRR  TTTTTTTTTTTTT  LLL
SSSSSSSSSSSSS  MMM      MMM      GGGGGGGGGGG  RRRRRRRRRRR  TTTTTTTTTTTTT  LLL
SSSSSSSSSSSSS  MMM      MMM      GGGGGGGGGGG  RRRRRRRRRRR  TTTTTTTTTTTTT  LLL
SSS            MMMMMM  MMMMMM  GGG           RRR           RRR           TTT           LLL
SSS            MMMMMM  MMMMMM  GGG           RRR           RRR           TTT           LLL
SSS            MMMMMM  MMMMMM  GGG           RRR           RRR           TTT           LLL
SSS            MMM      MMM      GGG           RRR           RRR           TTT           LLL
SSS            MMM      MMM      GGG           RRR           RRR           TTT           LLL
SSS            MMM      MMM      GGG           RRR           RRR           TTT           LLL
SSS            MMM      MMM      GGG           RRR           RRR           TTT           LLL
SSSSSSSSSSS    MMM      MMM      GGG           RRRRRRRRRRR  TTT           LLL
SSSSSSSSSSS    MMM      MMM      GGG           RRRRRRRRRRR  TTT           LLL
SSSSSSSSSSS    MMM      MMM      GGG           RRRRRRRRRRR  TTT           LLL
SSS            MMM      MMM      GGG           GGGGGGGGG  TTT           LLL
SSS            MMM      MMM      GGG           GGGGGGGGG  TTT           LLL
SSS            MMM      MMM      GGG           GGGGGGGGG  TTT           LLL
SSS            MMM      MMM      GGG           GGG           TTT           LLL
SSS            MMM      MMM      GGG           GGG           TTT           LLL
SSS            MMM      MMM      GGG           GGG           TTT           LLL
SSS            MMM      MMM      GGG           GGG           TTT           LLL
SSSSSSSSSSSSS  MMM      MMM      GGGGGGGGG  RRR           RRR           TTT           LLLLLLLLLLLLLLLLL
SSSSSSSSSSSSS  MMM      MMM      GGGGGGGGG  RRR           RRR           TTT           LLLLLLLLLLLLLLLLL
SSSSSSSSSSSSS  MMM      MMM      GGGGGGGGG  RRR           RRR           TTT           LLLLLLLLLLLLLLLLL

```

\_S2  
Val  
---  
001  
001  
001  
001  
001  
001  
001  
7FF  
7FF  
7FF  
7FF  
7FF  
7FF  
7FF  
7FF

```
SSSSSSSS MM MM GGGGGGGG KK KK CCCCCCCC BBBB BBBB
SSSSSSSS MM MM GGGGGGGG KK KK CCCCCCCC BBBB BBBB
SS SSSSSSS MMMM MMMM GG GG KK KK CC CCCCCCCC BB BB
SS SSSSSSS MMMM MMMM GG GG KK KK CC CCCCCCCC BB BB
SS SSSSSSS MM MM MM GG GG KK KK CC CCCCCCCC BB BB
SS SSSSSSS MM MM MM GG GG KKKKKK CC CCCCCCCC BBBB BBBB
SS SSSSSSS MM MM MM GG GG KKKKKK CC CCCCCCCC BBBB BBBB
SS SSSSSSS MM MM MM GG GGGGGG KK KK CC CCCCCCCC BB BB
SS SSSSSSS MM MM MM GG GGGGGG KK KK CC CCCCCCCC BB BB
SS SSSSSSS MM MM MM GG GG GG KK KK CC CCCCCCCC BB BB
SSSSSSSS MM MM GGGGGG KK KK CCCCCCCC BBBB BBBB
SSSSSSSS MM MM GGGGGG KK KK CCCCCCCC BBBB BBBB
.....
.....
.....
.....
```

```
SSSSSSSS DDDDDDDD LL
SSSSSSSS DDDDDDDD LL
SS DD DD LL
SS DD DD LL
SS DD DD LL
SS SSSSSS DD DD LL
SS SSSSSS DD DD LL
SS DD DD LL
SS DD DD LL
SS DD DD LL
SSSSSSSS DDDDDDDD LLLLLLLLLL
SSSSSSSS DDDDDDDD LLLLLLLLLL
```

MODULE KCBDEF IDENT "1-002"; { Screen Management Keyboard Control Block (KCB)  
 { File: SMGKCB.SDL, Edit: PLL1002

```

*****
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{ Author: Steven B. Lionel, 10-February-1983
{ 1-001 - Original. SBL 10-Feb-1983
{ 1-002 - Added device name string and length. PLL 21-Jun-1983
{--

```

```

{+
{ The Screen Management Keyboard Control Block (KCB) contains state information
{ about a particular virtual keyboard.
{-

```

AGGREGATE KCB\_STRUCT STRUCTURE PREFIX KCB\_ MARKER KCB\_ ORIGIN KCB;

```

EFN LONGWORD; { Event flag number
union1 UNION;
  CHANNEL WORD; { I/O channel for $QIO
  IFI WORD; { Internal file identifier for RMS
END union1;
AST_CHANNEL WORD; { I/O channel for AST declarations
KQB_ADDRESS; { Address of corresponding KQB
CHECK LONGWORD; { Consistency check value
OLD_DEVDEPEND1 LONGWORD; { Previous DEVDEPEND1
OLD_DEVDEPEND2 LONGWORD; { Previous DEVDEPEND2
DEVCHAR LONGWORD; { Device characteristics
TERMCHAR STRUCTURE; { Terminal characteristics
  DEVCLASS BYTE; { Device class
  DEVTYP BYTE; { Device type
  PAGE WIDTH WORD; { Page width
  DEVDEPEND1 LONGWORD; { Device dependent information
  DEVDEPEND2 LONGWORD; { More device dependent information

```

```

END TERMCHAR;
PASTEBOARD ID LONGWORD;      { Id of associated pasteboard
FLAGS STRUCTURE;             { Local state flags
  RMS BITFIELD;               { Read using RMS
  CTRLZ BITFIELD;             { ^Z was typed at end of last read
  CHARS_CHANGED BITFIELD;     { Term. characteristics changed
  KPDSQB_DECCRT BITFIELD;     { Keypad change seq is DECCRT compat.
  dummy3 BITFIELD LENGTH 28 FILL;
END FLAGS;

CONSTANT ORIGIN_OFFSET EQUALS :: { Offset of zero-origin

KCB UNION;                    { Zero-origin of data structure
  RAB STRUCTURE;              { RMS Record Access Block (dummy decl)
    dummy4 BYTE FILL;
  END RAB;
  QIO1 STRUCTURE;             { $QIOW argument list to read a line
    QIO1_ARGCNT LONGWORD;     { Argument count
    CONSTANT QIO1_ARGCNT EQUALS 12; { 12 arguments to $QIOW
    QIO1_EFN LONGWORD;        { Event flag number
    QIO1_CHAN LONGWORD;       { I/O channel
    QIO1_FUNC LONGWORD;       { Function code
    QIO1_IOSB ADDRESS;        { Address of IOSB
    QIO1_ASTADR ADDRESS;      { AST routine address
    QIO1_ASTPRM LONGWORD;     { AST routine parameter
    QIO1_P1 LONGWORD;         { Parameter P1
    QIO1_P2 LONGWORD;         { Parameter P2
    QIO1_P3 LONGWORD;         { Parameter P3
    QIO1_P4 LONGWORD;         { Parameter P4
    QIO1_P5 LONGWORD;         { Parameter P5
    QIO1_P6 LONGWORD;         { Parameter P6
  END QIO1;
END KCB;                       { End of RAB-QIO1 union
QIO2 STRUCTURE;               { $QIOW argument list to read a character
  QIO2_ARGCNT LONGWORD;      { Argument count
  CONSTANT QIO2_ARGCNT EQUALS 12; { 12 arguments to $QIOW
  QIO2_EFN LONGWORD;         { Event flag number
  QIO2_CHAN LONGWORD;        { I/O channel
  QIO2_FUNC LONGWORD;        { Function code
  QIO2_IOSB ADDRESS;         { Address of IOSB
  QIO2_ASTADR ADDRESS;       { AST routine address
  QIO2_ASTPRM LONGWORD;      { AST routine parameter
  QIO2_P1 LONGWORD;          { Parameter P1
  QIO2_P2 LONGWORD;          { Parameter P2
  QIO2_P3 LONGWORD;          { Parameter P3
  QIO2_P4 LONGWORD;          { Parameter P4
  QIO2_P5 LONGWORD;          { Parameter P5
  QIO2_P6 LONGWORD;          { Parameter P6
END QIO2;

IOSB STRUCTURE;               { I/O status block
  IOSB_STATUS WORD;           { Status
  IOSB_COUNT WORD UNSIGNED;   { Count
  IOSB_TERMINATOR BYTE UNSIGNED; { Terminator
  reserved BYTE FILL;        { reserved
  IOSB_TERMLEN BYTE UNSIGNED; { Length of terminator
  IOSB_POS BYTE UNSIGNED;     { Position of cursor

```

END IOSB;  
DEVNAM\_LENGTH WORD; { Length of device name string  
DEVNAM\_STRING CHARACTER LENGTH 64; { Resultant device name string  
END KCB STRUCT;  
END\_MODULE RCBDEF;

SYMBOLS  
LIS

SMGRTL

SMGBLDRM  
MAP

SDAMSG  
LIS

VAXINST  
LIS

SMGMATR  
MAP

SMGKCB  
SDL

VALIDATE  
LIS

STACKS  
LIS

SMGDEF  
SDL

SMGKDE  
SDL

SMGSHR  
MAP