


```

0000 1      .TITLE  UTIL$RANDOM_KEY
0000 2      .IDENT  /V04-000/
0000 3      *****
0000 4      *
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0000 22     *
0000 23     *
0000 24     *  *****
0000 25     *
0000 26     *  ++
0000 27     *
0000 28     *  FACILITY:      Random number generator.
0000 29     *
0000 30     *  ABSTRACT:     Produces a random longword.
0000 31     *
0000 32     *  AUTHOR:       Paul R. Beck
0000 33     *
0000 34     *  DATE:         19-APR-1983      Last Edit:  19-APR-1983 21:37:26
0000 35     *
0000 36     *  REVISION HISTORY:
0000 37     *
0000 38     *
0000 39     *  --

```

Symb

LINP
LIST
LSCH
M
MOFS
MONS
MPDL
MRKF
N
NACC
NFLG
NMRB
NOCT
NOPR
NP
NWAT
NWID
OFLG
OSCA
OUPA
OUPN
OUPN
OUTB
OUTC
OUTD
OUTS
P
PATC
PATS
PCNT
PDL
PDLS
PDLS
POST
PREC
PREL
PRIN
PRIN
PRIN
PRTL
PST
PUTB
QARR
QBAS
QCMN
QFLG
QLCM
QLEN
QMAX
QNMB
QPNT
QRST

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0000 41 :
0000 42 : Local data
0000 43 :
FFFFF7960 44 TENMS: .LONG -100*1000,-1 ; 10 ms timer
0008 45 :
0008 46 KEY: .BLKL 1 ; build the key here
000C 47 DATA: .BLKL 1 ; Just increment this ad nauseum
0010 48 OFFSET: .BLKL 1 ; Offset into KEY
0014 49 :++
0014 50 : UTIL$RANDOM_KEY
0014 51 :
0014 52 : FUNCTIONAL DESCRIPTION:
0014 53 : Create a random, 32-bit key. This is done two bits at a time.
0014 54 : CALLING SEQUENCE:
0014 55 : CALLS #1,UTIL$RANDOM_KEY
0014 56 : INPUT PARAMETERS:
0014 57 : None
0014 58 : OUTPUT PARAMETERS:
0014 59 : P1 = address to receive key
0014 60 : COMPLETION CODES:
0014 61 : SSS_NORMAL
0014 62 :--
0000 63 :.ENTRY UTIL$RANDOM_KEY,^M<>
F3 AF 7C 64 :
0019 65 CLRQ DATA ; set offset into key and counter
0019 66 $SETIMR_S -
0019 67 daytim = TENMS - ; 10 ms timer
0019 68 astadr = KEY_AST ; address of timer AST
19 50 E9 002D 69 BLBC R0,20$ ; ?
FFFFF8F 09 AF D6 0030 70 10$: INCL DATA ; *** LOOP ***
0033 71 CMPL OFFSET,#-1 ; done yet?
0038 72 BNEQ 10$ ; if NEQ, no.
04 BC C8 AF D0 003D 73 MOVL KEY,@4(AP) ; return random key
50 00000000'8F D0 0042 74 MOVL #SS$ _NORMAL,R0 ; done
04 0049 75 20$: RET
004A 76 :
004A 77 : AST to collect the random key, two bits every 10 ms.
004A 78 : KEY contains address of the key being constructed
004A 79 : DATA contains the raw data (we just use the low two bits as random)
004A 80 : OFFSET contains the number of passes made *2 and offsets into the key.
004A 81 :
0000 004A 82 :.ENTRY KEY_AST,^M<>
004C 83 :
B1 AF 02 50 C1 AF D0 004C 84 MOVL OFFSET,R0
0050 85 INSV DATA,R0,#2,KEY ; move next two bits into key
0057 86 INCL OFFSET ; adjust offset
02 B2 AF 20 F2 005A 87 AOBLSS #32,OFFSET,10$ ; ...and exit when we're done
005F 88 BRB 20$
0061 89 10$: $SETIMR_S -
0061 90 daytim = TENMS - ; 10 ms timer
0061 91 astadr = KEY_AST ; address of timer AST
95 AF FFFFFFFF 8F 04 0072 92 RET
0073 93 20$: MOVL #-1,OFFSET ; set flag and don't reissue AST
007B 94 RET
007C 95 .END

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0399 AH-BT13A-SE
VAX/VMS V4.0

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A large grid of 100 small panels, each containing technical diagrams, code snippets, or data tables. The panels are arranged in a 10x10 grid. Several panels are highlighted with larger, bold text labels:

- UTILKEY LIS (Row 1, Column 7)
- TECOLBR LIS (Row 1, Column 8)
- TECOMD LIS (Row 2, Column 8)
- SCSLOA LIS (Row 4, Column 1)
- TECO (Row 4, Column 7)
- TECO MAP (Row 5, Column 7)
- TECONAT LIS (Row 7, Column 8)

The content within the panels is dense and technical, typical of a software manual or reference guide. The overall appearance is that of a microfiche or a high-density printed document.