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' PET hop sequence generator

' Pinnacle technologies
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' 03-03-2000
' Version 1.2
ver$ = "1.2"

DO
    CLS
    indent% = 5
    LOCATE 3, 1
    PRINT TAB(indent%); "The output data file name is: hoptable.txt "
    PRINT
    PRINT TAB(indent%); "Enter a seed value between -32,767 and 32,767."
    PRINT TAB(indent%); "A given seed value will always yield the"
    PRINT TAB(indent%); "same random sequence. ";

    INPUT i$

    IF ABS(VAL(i$)) <= 32767 THEN
        EXIT DO
    ELSE
        SOUND 700, 2
    END IF
LOOP

'Select the sequence
seedval% = VAL(i$)
RANDOMIZE (seedval%)

DIM table%(255, 24), UsedFreq%(24)
FOR seq% = 0 TO 255
    PRINT "Working on sequence # "; seq%

    'reinitialize used table
    FOR hop% = 0 TO 24
        UsedFreq%(hop%) = 0
    NEXT hop%

    FOR hop% = 0 TO 24
        DO
            'Pick a random hop
            potentialhop% = RND(1) * 24

            'See if the proposed hop is already used
            IF UsedFreq%(potentialhop%) <> 1 THEN
                'It is not used
                UsedFreq%(potentialhop%) = 1
                table%(seq%, hop%) = potentialhop%
                EXIT DO
            END IF
        LOOP
    NEXT hop%
NEXT seq%

'Now, print out the results to a file

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OPEN "hoptable.txt" FOR OUTPUT AS #1

PRINT #1, "Seed Value Selected = "; LTRIM$(RTRIM$(STR$(seedval%)))
PRINT #1, "Program Version = "; ver$
PRINT #1,

FOR seq% = 0 TO 255
    SELECT CASE seq%
        CASE IS >= 100
            i$ = ""

        CASE IS >= 10
            i$ = " "

        CASE ELSE
            i$ = "  "
    END SELECT

    PRINT #1, "Sequence "; i$; LTRIM$(RTRIM$(STR$(seq%))); ": ";
    FOR hop% = 0 TO 24
        PRINT #1, LTRIM$(RTRIM$(STR$(table%(seq%, hop%))));
        IF hop% <> 24 THEN
            PRINT #1, ",";
        ELSE
            PRINT #1,
        END IF
    NEXT hop%
NEXT seq%

CLOSE #1
END

```