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// corrupt.cpp - CORRUPT THE UNUSED STORAGE ON A HARD DISK
//
// MAINTENANCE HISTORY
// DATE          PROGRAMMER AND DETAILS
// 13-10-14    MPF      Original
//
//-----

#include <cstring>           // C-style string manipulation functions
#include <cstdlib>           // C-style standard library
#include <map>                // C++ map declarations
#include <string>             // C++ string declarations
using namespace std;        // Expand the standard namespace
#include <stdint.h>          // Standard integer type declarations
#define      BUF_LEN        1024      // Buffer length

//-----

// MAIN LINE

int
main (
    int      argc,           // Argument count
    char     *argv[])       // Argument value pointers
{
    FILE     *diskFp;       // Whole disk file pointer
    unsigned char buf[BUF_LEN]; // Buffer
    size_t   writeCnt;      // Number of pages written
    long     r;             // Random value
    long     i;             // General purpose index

    // Read each page on the disk

    srand48 (time(NULL));
    diskFp = fopen ("wholedisk", "r+");
    while (fread (&buf, BUF_LEN, 1, diskFp) != 0) {

        r = lrand48() % 4;
        if (r > 0) {
            r = lrand48() % 10 + 1;
            for (i = 0; i < r; i++) {
                buf[lrand48()%BUF_LEN] = (char)(lrand48()%255);
            }
        }

        fseek (diskFp, -BUF_LEN, SEEK_CUR);
        writeCnt = fwrite (buf, BUF_LEN, 1, diskFp);
        if (writeCnt != 1) {
            fprintf (stderr, "Error: cannot write page\n");
            exit (1);
        }
    }
    fclose (diskFp);

    return 0;
}

```