Source code of "rom_dump.cpp"

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/*****************************************************************************
Program name:   rom_dump
Module name:    rom_dump.cpp
Description:    The program converts "PA.txt" and makes "SST 27SF512-*.bin" for
                dumping NEC uPD777 program ROM and pattern ROM contents.
                Input files : "PA.txt" which includes dump patterns by texts
                Output files : "SST 27SF512-3.bin", "SST 27SF512-2.bin",
                               "SST 27SF512-1.bin" byte packed binary files
                               to be programmed by EEPROM programmer
Usage:          rom_dump <enter>
Version:        1.0
Date:           June, 2, 2021
Programmer:     Tetsuji Oguchi
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*****************************************************************************/

#include   <stdio.h>
#include   <string.h>
#include   <process.h>
// #pragma warning(disable: 4996)

// #define RELEASE

static char   infile[] = "PA.txt", out3file[] = "SST 27SF512-3.bin";
static char   out2file[] = "SST 27SF512-2.bin", out1file[] = "SST 27SF512-1.bin";
static char   ibuf[40], obuf[3][40];
static int    i, j[8] = {0x80, 0x40, 0x20, 0x10, 0x08, 0x04, 0x02, 0x01}, k;
static int    block, length;

FILE   *patifp, *bin3ofp, *bin2ofp, *bin1ofp;


int main()
{
    printf("NEC uPD777 program ROM & pattern ROM dump program\n");
    printf("                              (C) Oguchi R&D  2021\n\n");

// Check & specify file I/O
    if (fopen_s(&patifp, "PA.txt", "r"))
    {
        printf("Input file PA.txt doesn't exist\n");
        exit(0);
    }
    if (fopen_s(&bin3ofp, "SST 27SF512-3.bin", "wb"))
    {
        printf("Output file SST 27SF512-3.bin open error...\n");
        exit(0);
    }
    if (fopen_s(&bin2ofp, "SST 27SF512-2.bin", "wb"))
    {
        printf("Output file SST 27SF512-2.bin open error...\n");
        exit(0);
    }
    if (fopen_s(&bin1ofp, "SST 27SF512-1.bin", "wb"))
    {
        printf("Output file SST 27SF512-1.bin open error...\n");
        exit(0);
    }
// Start dump
    fgets(ibuf, 40, patifp);
```

```
    while (!feof(patifp))
    {
        if (ibuf[0] != '-')
        {
            i = 0;
            k = 0;
            length = 8;
            block = 0;
            while (block < 3)
            {
                while (i < length)
                {
                    if (ibuf[(block * 8) + i] == '1')  k += j[i];
                    i++;
                }
                switch (block)
                {
                case 0: fputc(k, bin3ofp); break;
                case 1: fputc(k, bin2ofp); break;
                case 2: fputc(k, bin1ofp); break;
                }
                i = 0;
                k = 0;
                block++;
            }
            }
        fgets(ibuf, 40, patifp);
    }

// End dump
printf("NEC uPD777 program ROM & pattern ROM dump completed\n");

fclose(patifp);
fclose(bin3ofp);
fclose(bin2ofp);
fclose(bin1ofp);
}
```