```c
//Jon Ambrose & Simon Hartfield
//Transmit File




#include <stdio.h>
#include <stdlib.h>
#include <conio.h>
#define CNTRLZ 0x9A
#define constkeysize 2

main(){

char Com_address[] ="COM1";
char Write[] ="wb";
char source_address[128] = "C:\\temp\\Transmit.txt"; //address of source file
char key_address[128] ="C:\\temp\\Key.txt"; //address of source file
char read[] ="rb";
char scand[] = "%d";
char scans[] ="%s";

char keymessage[] ="\nPlease enter location of key file\n";
char srcmessage[] ="\nPlease enter location of source file\n";
int data;
int count;
int keyext;

FILE * com;
FILE * src;
FILE * key;

count = 0;

__asm
{

    lea eax, srcmessage //get address of file to be sent ( source )
    push eax
    call printf
    add esp, 4
    lea eax, source_address
    push eax
    lea eax, scans
    push eax
    call scanf
    add esp, 8

    lea eax, keymessage //get address of file containing key
    push eax
    call printf
    add esp, 4
    lea eax, key_address
    push eax
    lea eax, scans
    push eax
    call scanf
    add esp, 8

    lea eax, Write //get pointer to COM Port
    push eax
    lea eax, Com_address
    push eax
    call fopen
    mov com,eax
    add esp, 8

    lea eax, read //get pointer to source file
    push eax
    lea eax, source_address
    push eax
    call fopen
    mov src,eax
    add esp, 8
```

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        lea eax, read //get pointer to key file
        push eax
        lea eax, key_address
        push eax
        call fopen
        mov key,eax
        add esp, 8

/////////////////////////////End of Initialisation/////////////////////////////////
nextchar:

        mov eax, key //get next key character from file
        push eax
        call fgetc
        mov keyext, eax
        add esp, 4

        cmp eax, EOF
        jz keyend
        mov ebx, keyext

        mov eax, src //get next character to be transfered
        push eax
        call fgetc
        mov data, eax
        add esp, 4
        cmp eax, EOF
        je end

        xor eax, ebx    //encryption using external key
        mov data, eax

        mov eax, com //send data using fputc
        push eax
        mov eax, data
        push eax
        call fputc
        add esp, 8

        mov eax, com //flush the buffer to send character
        push eax
        call fflush
        add esp, 4

        jmp nextchar

keyend:

        mov eax, key
        push eax
        call rewind
        add esp, 4
        jmp nextchar

end:

        mov eax, com //send EOF
        push eax
        mov eax, CNTRLZ
        push eax
        call fputc
        add esp, 8

        mov eax, com //flush buffer to send fake EOF
        push eax
        call fflush
        add esp, 4

        mov eax, com //close com port
        push eax
        call fclose
        add esp, 4

        mov eax, src    //close source port
```

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        push eax
        call fclose
        add esp, 4

        mov eax, src //close src file
        push eax
        call fclose
        add esp, 4

        xor eax,eax //clear eax, ebx at end of program
        xor ebx,ebx
}

return 0;
}
```