#include <windows.h>  
#include <stdlib.h>  
#include <stdio.h>  
#include <string.h>  
#include <commdlg.h>  
//#include <windef.h>  
  
int nread,nwrite;  
  
  
void main()  
{  
  
HANDLE hSerial;  
COMMTIMEOUTS timeouts;  
COMMCONFIG dcbSerialParams;  
char \*words, \*buffRead, \*buffWrite;  
DWORD dwBytesWritten, dwBytesRead;  
  
  
  
hSerial = CreateFile("COM1",  
GENERIC\_READ | GENERIC\_WRITE,  
0,  
NULL,  
OPEN\_EXISTING,  
FILE\_ATTRIBUTE\_NORMAL,//FILE\_FLAG\_OVERLAPPED, // FILE\_ATTRIBUTE\_NORMAL  
NULL);  
  
if ( hSerial == INVALID\_HANDLE\_VALUE)   
{  
if (GetLastError() == ERROR\_FILE\_NOT\_FOUND)  
{  
printf(" serial port does not exist \n");  
}  
printf(" some other error occured. Inform user.\n");  
}  
  
  
//DCB dcbSerialParams ;  
//GetCommState( hSerial, &dcbSerialParams.dcb);  
if (!GetCommState(hSerial, &dcbSerialParams.dcb))   
{  
printf("error getting state \n");  
}  
  
dcbSerialParams.dcb.DCBlength = sizeof(dcbSerialParams.dcb);  
  
  
dcbSerialParams.dcb.BaudRate = CBR\_38400;  
dcbSerialParams.dcb.ByteSize = 8;  
dcbSerialParams.dcb.StopBits = TWOSTOPBITS;  
dcbSerialParams.dcb.Parity = NOPARITY;  
  
dcbSerialParams.dcb.fBinary = TRUE;  
dcbSerialParams.dcb.fDtrControl = DTR\_CONTROL\_DISABLE;  
dcbSerialParams.dcb.fRtsControl = RTS\_CONTROL\_DISABLE;  
dcbSerialParams.dcb.fOutxCtsFlow = FALSE;  
dcbSerialParams.dcb.fOutxDsrFlow = FALSE;  
dcbSerialParams.dcb.fDsrSensitivity= FALSE;  
dcbSerialParams.dcb.fAbortOnError = TRUE;  
  
if (!SetCommState(hSerial, &dcbSerialParams.dcb))   
{  
printf(" error setting serial port state \n");  
}  
  
  
GetCommTimeouts(hSerial,&timeouts);  
//COMMTIMEOUTS timeouts = {0};  
  
timeouts.ReadIntervalTimeout = 50;  
timeouts.ReadTotalTimeoutConstant = 50;  
timeouts.ReadTotalTimeoutMultiplier = 10;  
timeouts.WriteTotalTimeoutConstant = 50;  
timeouts.WriteTotalTimeoutMultiplier= 10;  
  
if(!SetCommTimeouts(hSerial, &timeouts))   
{  
printf("error setting port state \n");  
}  
  
  
  
  
  
//\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*Write Operation\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*//  
words = "This is a string to be written to serial port COM1";  
nwrite = strlen(words);  
  
buffWrite = words;  
dwBytesWritten = 0;  
  
if (!WriteFile(hSerial, buffWrite, nwrite, &dwBytesWritten, NULL))   
{   
printf("error writing to output buffer \n");  
}  
//printf("Data written to write buffer is \n %s \n",buffWrite);  
  
  
  
//\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*Read Operation\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*//  
buffRead = 0;  
dwBytesRead = 0;  
nread = strlen(words);  
  
if (!ReadFile(hSerial, buffRead, nread, &dwBytesRead, NULL))   
{  
printf("error reading from input buffer \n");  
}  
printf("Data read from read buffer is \n %s \n",buffRead);  
  
  
CloseHandle(hSerial);  
  
}