Московский Авиационный Институт

(Национальный Исследовательский Университет)

Институт №8 “Компьютерные науки и прикладная математика”

Кафедра №806 “Вычислительная математика и программирование”

Лабораторная работа №3 по курсу

«Операционные системы»

Группа: М8О-214Б-23

Студент: Кондратенко А.С.

Преподаватель: Бахарев В.Д. (ФИИТ)

Оценка: _____

Дата: 20.11.24

Москва, 2024

Постановка задачи

Вариант 8.

В файле записаны команды вида: «число число число». Дочерний процесс производит деление первого числа команды, на последующие числа в команде, а результат выводит в стандартный поток вывода. Если происходит деление на 0, то тогда дочерний и родительский процесс завершают свою работу. Проверка деления на 0 должна осуществляться на стороне дочернего процесса. Числа имеют тип int. Количество чисел может быть произвольным. Родительский процесс передает команды пользователя через file mapping, который связан со стандартным входным потоком дочернего процесса. Результаты своей работы дочерний процесс пишет в стандартный поток вывода.

Общий метод и алгоритм решения

Использованные системные вызовы:

- CreateFileMapping – создает file mapping
- MapViewOfFile – позволяет посмотреть данные в file mapping
- ReadFile – читает данные из канала
- CloseHandle – закрывает хэндлеры
- WriteFile – записывает данные в канал
- WriteConsoleA – записывает данные в консоль
- CreateSemaphore – создает семафор
- ReleaseSemaphore - закрывает один из потоков
- WaitForSingleObject - ожидание, пока поток закончит свою работу
- UnmapViewOfFile - отменяет сопоставление сопоставленного представления файла из адресного пространства вызывающего процесса

Я реализовал собственные аналоги printf и fprintf(my_printf и file_printf соответственно). В них обрабатывается форматная строка, в результирующую строку подставляются переданные аргументы, и затем она выводится либо в консоль (с помощью WriteConsoleA) либо в файл (с помощью WriteFile). Также я создал функцию для перевода строки в LPWSTR.

В parent.cpp открывается файл, переданный в аргументах командной строки, в строку buffer записываются данные оттуда. Затем полученные данные отправляются в child.cpp, где они с помощью strtok разделяются по строкам. Далее строки разделяются по пробелам на числа, производится деление чисел, и результат передается в родительский процесс, откуда выводится в стандартный поток вывода. Передача данных между процессами осуществляется через file mapping.

Код программы

my_stdio.h

```
#include <windows.h>

#include <stdarg.h>

#include <string.h>
```

```
LPWSTR ConvertToWideString(const char* str);

void my_printf(const char* format, ...);

int file_printf(HANDLE fileHandle, const char* format, ...);
```

my_stdio.cpp

```
#pragma once
#define INITIAL_BUFFER_SIZE 128

#include <windows.h>
#include <stdarg.h>
#include <string.h>

LPWSTR ConvertToWideString(const char* str) {
    if (str == nullptr) return nullptr;
    int size_needed = MultiByteToWideChar(CP_UTF8, 0, str, -1, NULL, 0);
    LPWSTR wideString = new wchar_t[size_needed];
    MultiByteToWideChar(CP_UTF8, 0, str, -1, wideString, size_needed);
    return wideString;
}
void my_printf(const char* format, ...) {
    va_list args;
    va_start(args, format);

    char buffer[1024];
    char* buf_ptr = buffer;
    const char* fmt_ptr = format;
    int buffer_size = sizeof(buffer);

    while (*fmt_ptr) {
```

```
if (*fmt_ptr == '%') {
    fmt_ptr++;
    switch (*fmt_ptr) {
    case 'd': {
        int value = va_arg(args, int);
        char num_buffer[20];
        char* num_ptr = num_buffer;
        if (value < 0) {
            *buf_ptr++ = '-';
            value = -value;
        }
        do {
            *num_ptr++ = (char)((value % 10) + '0');
            value /= 10;
        } while (value > 0);
        while (num_ptr > num_buffer) {
            *buf_ptr++ = *--num_ptr;
        }
        break;
    }
    case 's': {
        char* str = va_arg(args, char*);
        while (*str) {
            *buf_ptr++ = *str++;
        }
        break;
    }
    case 'c': {
        char ch = (char)va_arg(args, int);
        *buf_ptr++ = ch;
```

```
                break;
            }
            case '%': {
                *buf_ptr++ = '%';
                break;
            }
            default:
                *buf_ptr++ = *fmt_ptr;
                break;
            }
        }
        else {
            *buf_ptr++ = *fmt_ptr;
        }
        fmt_ptr++;
    }
    *buf_ptr = '\0';

    va_end(args);

    HANDLE hConsole = GetStdHandle(STD_OUTPUT_HANDLE);
    DWORD bytesWritten;
    WriteConsoleA(hConsole, buffer, (DWORD)(buf_ptr - buffer), &bytesWritten, NULL);
}


int file_printf(HANDLE fileHandle, const char* format, ...) {
    va_list args;
    va_start(args, format);
```

```
char buffer[1024];
char* buf_ptr = buffer;
const char* fmt_ptr = format;
int buffer_size = sizeof(buffer);

while (*fmt_ptr) {
    if (*fmt_ptr == '%') {
        fmt_ptr++;
        switch (*fmt_ptr) {
        case 'd': {
            int value = va_arg(args, int);
            char num_buffer[20];
            char* num_ptr = num_buffer;
            if (value < 0) {
                *buf_ptr++ = '-';
                value = -value;
            }
            do {
                *num_ptr++ = (char)((value % 10) + '0');
                value /= 10;
            } while (value > 0);
            while (num_ptr > num_buffer) {
                *buf_ptr++ = *--num_ptr;
            }
            break;
        }
        case 's': {
            const char* str = va_arg(args, const char*);
            while (*str) {
                *buf_ptr++ = *str++;
```

```
            }
            break;
        }
        case 'c': {
            char ch = (char)va_arg(args, int);
            *buf_ptr++ = ch;
            break;
        }
        case '%': {
            *buf_ptr++ = '%';
            break;
        }
        default:
            *buf_ptr++ = *fmt_ptr;
            break;
        }
    }
    else {
        *buf_ptr++ = *fmt_ptr;
    }
    fmt_ptr++;
  }
  *buf_ptr = '\0';
  DWORD bytesWritten;
  WriteFile(fileHandle, buffer, (DWORD)(buf_ptr - buffer), &bytesWritten, NULL);

  va_end(args);
  //CloseHandle(fileHandle);
  return 0;
}
```

parent.cpp

```
#define _CRT_SECURE_NO_WARNINGS
#include <windows.h>
#include <string.h>
#include "my_stdio.h"
//#include <stdio.h>
#define BUFFER_SIZE 1024

enum ret_type_t {
    SUCCESS,
    ERROR_ARGS_COUNT,
    ERROR_CREATE_PIPE,
    ERROR_CREATE_CHILD_PROCESS,
    ERROR_READ,
    ERROR_DEV_ZERO,
    ERROR_FULL,
    ERROR_OPEN_FILE,
    ERROR_CLOSE_FILE,
    ERROR_FILE_WRITE,
    ERROR_HANDLER_INHERITED,
    ERROR_PIPE_WRITE,
    ERROR_HEAP,
    ERR_FMAP,
    ERR_SEM,
    ERR_MAPVIEW
};

int main(int argc, char* argv[]) {

    //my_printf("1\n");
```

```
    if (argc != 2) {
        my_printf("Incorrect num args");
        return ERROR_ARGS_COUNT;
    }

    HANDLE hMapFile = CreateFileMapping(INVALID_HANDLE_VALUE, NULL,
PAGE_READWRITE, 0, BUFFER_SIZE, ConvertToWideString("SharedMemory"));
    if (hMapFile == NULL) {
        my_printf("Failed to create file mapping\n");
        return ERR_FMAP;
    }
    HANDLE hSemParent = CreateSemaphore(NULL, 1, 1,
ConvertToWideString("SemaphoreParent"));
    HANDLE hSemChild = CreateSemaphore(NULL, 0, 1,
ConvertToWideString("SemaphoreChild"));

    if (hSemParent == NULL || hSemChild == NULL) {
        CloseHandle(hMapFile);
        my_printf("Failed to create semaphore\n");
        return ERR_SEM;
    }

    char* pBuf = (char*)MapViewOfFile(hMapFile, FILE_MAP_ALL_ACCESS, 0, 0,
BUFFER_SIZE);
    if (pBuf == NULL) {
        CloseHandle(hMapFile);
        CloseHandle(hSemParent);
        CloseHandle(hSemChild);
        my_printf("Failed to map view of file\n");
        return ERR_MAPVIEW;
```

```
    }

    char fileName[BUFFER_SIZE];

    char buffer[BUFFER_SIZE];

    DWORD bytesRead, bytesWritten;


    //my_printf("2\n");


    HANDLE hFile = CreateFile(ConvertToWideString(argv[1]), GENERIC_READ, 0, NULL,
OPEN_EXISTING, 0, NULL);

    ReadFile(hFile, buffer, BUFFER_SIZE, &bytesRead, NULL);

    buffer[bytesRead] = '\0';

    //my_printf("bytes read %d\n", bytesRead);

    //my_printf("%s", buffer);


    STARTUPINFO si;

    PROCESS_INFORMATION pi;

    ZeroMemory(&si, sizeof(si));

    si.cb = sizeof(si);

    ZeroMemory(&pi, sizeof(pi));


    char cmdLine[] = "child.exe";


    if (!CreateProcess(NULL, ConvertToWideString(cmdLine), NULL, NULL, FALSE, 0, NULL,
NULL, &si, &pi)) {

        UnmapViewOfFile(pBuf);

        CloseHandle(hMapFile);

        CloseHandle(hSemParent);

        CloseHandle(hSemChild);

        my_printf("Failed to create process");

        return ERROR_CREATE_CHILD_PROCESS;

    }
```

```
    WaitForSingleObject(hSemParent, INFINITE);
    strcpy(pBuf, buffer);
    ReleaseSemaphore(hSemChild, 1, NULL);

    WaitForSingleObject(hSemParent, INFINITE);
    if (strcmp(pBuf, "DIVIDE_BY_ZERO") == 0) {
        my_printf("Zero division error");
        return ERROR_DEV_ZERO;
    }

    UnmapViewOfFile(pBuf);
    CloseHandle(hMapFile);
    CloseHandle(hSemParent);
    CloseHandle(hSemChild);
    CloseHandle(pi.hProcess);
    CloseHandle(pi.hThread);

    return SUCCESS;
}
```

child.cpp

```
#pragma once
#define _CRT_SECURE_NO_WARNINGS
#include <windows.h>
#include <string.h>
//#include <stdio.h>
#include "my_stdio.h"

#define BUFFER_SIZE 1024
```

```
enum ret_type_t {
    SUCCESS,
    ERROR_ARGS_COUNT,
    ERROR_CREATE_PIPE,
    ERROR_CREATE_CHILD_PROCESS,
    ERROR_READ,
    ERROR_DEV_ZERO,
    ERROR_FULL,
    ERROR_OPEN_FILE,
    ERROR_CLOSE_FILE,
    ERROR_FILE_WRITE,
    ERROR_HANDLER_INHERITED,
    ERROR_PIPE_WRITE,
    ERROR_HEAP,
    ERR_FMAP,
    ERR_SEM,
    ERR_MAPVIEW
};


int main() {


    char buffer[BUFFER_SIZE];
    DWORD bytesRead, bytesWritten;


    HANDLE hMapFile = OpenFileMapping(FILE_MAP_ALL_ACCESS, FALSE,
ConvertToWideString("SharedMemory"));
    HANDLE hSemParent = OpenSemaphore(SEMAPHORE_ALL_ACCESS, FALSE,
ConvertToWideString("SemaphoreParent"));
    HANDLE hSemChild = OpenSemaphore(SEMAPHORE_ALL_ACCESS, FALSE,
ConvertToWideString("SemaphoreChild"));
    if (hMapFile == NULL || hSemParent == NULL || hSemChild == NULL) {
```

```
        my_printf("Failed to open file mapping or semaphore\n");
        return ERR_FMAP;
    }

    char* pBuf = (char*)MapViewOfFile(hMapFile, FILE_MAP_ALL_ACCESS, 0, 0,
BUFFER_SIZE);
    if (pBuf == NULL) {
        CloseHandle(hMapFile);
        CloseHandle(hSemParent);
        CloseHandle(hSemChild);
        my_printf("Failed to map view of file\n");
        return ERR_MAPVIEW;
    }

    WaitForSingleObject(hSemChild, INFINITE);
    strcpy(buffer, pBuf);

    int count = 0;
    char* token = strtok(buffer, "\n");
    //my_printf("start token: %s\n", token);
    while (token) {
        int i = 0, a, b, is_first = 1;
        char num[BUFFER_SIZE];
        char* ptc = token;
        while (1) {
            if (*ptc == ' ' || !(*ptc)) {
                if (is_first) {
                    num[i] = '\0';
                    a = atoi(num);
                    is_first = 0;
```

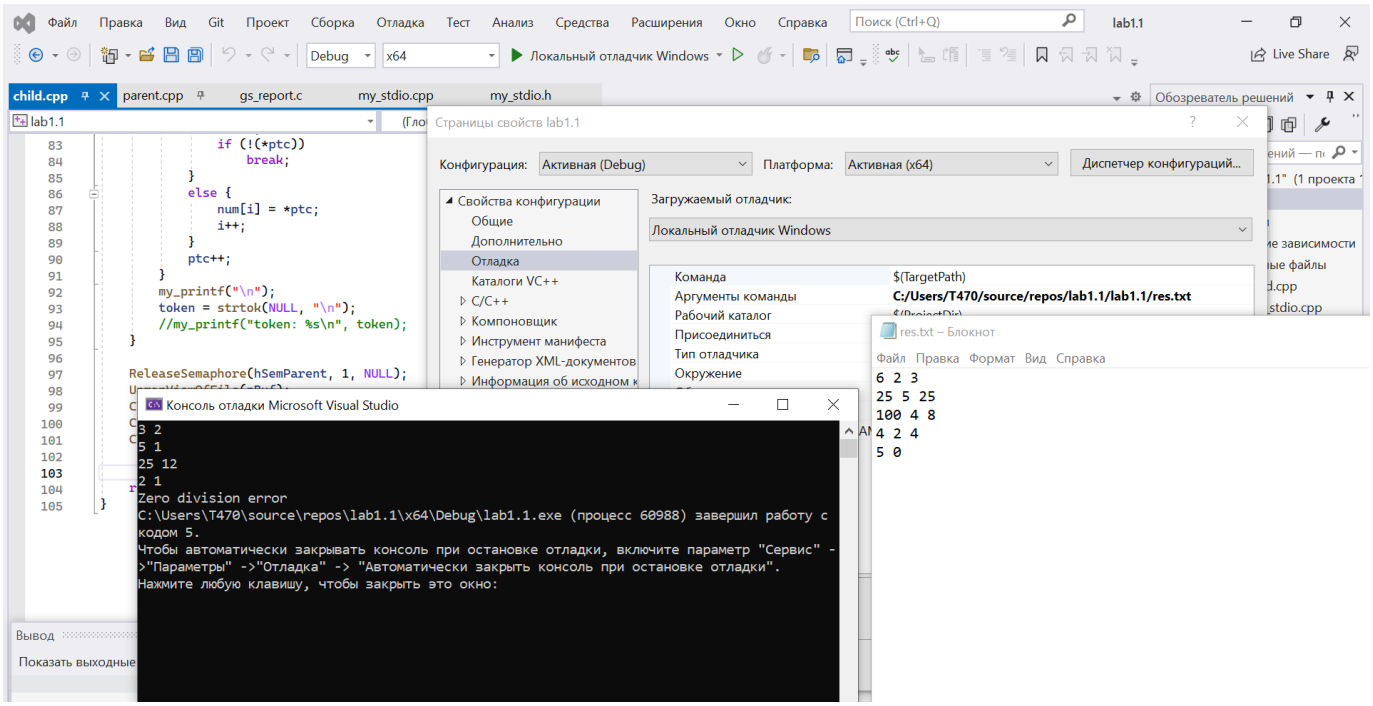
```
            }
            else {
                num[i] = '\0';
                b = atoi(num);
                if (!b) {
                    strcpy(pBuf, "DIVIDE_BY_ZERO");
                    ReleaseSemaphore(hSemParent, 1, NULL);
                    UnmapViewOfFile(pBuf);
                    CloseHandle(hMapFile);
                    CloseHandle(hSemParent);
                    CloseHandle(hSemChild);
                    return ERROR_DEV_ZERO;
                }
                my_printf("%d ", a / b);
            }
            i = 0;
            if (!(*ptc))
                break;
        }
        else {
            num[i] = *ptc;
            i++;
        }
        ptc++;
    }
    my_printf("\n");
    token = strtok(NULL, "\n");
    //my_printf("token: %s\n", token);
}
```

```
    ReleaseSemaphore(hSemParent, 1, NULL);
    UnmapViewOfFile(pBuf);
    CloseHandle(hMapFile);
    CloseHandle(hSemParent);
    CloseHandle(hSemChild);


    return SUCCESS;
}
```

Протокол работы программы

Тестирование:



NtTrace:

Process 44704 starting at 00007FF6C36C12FD with command line: "parent.exe"

C:\Users\T470\source\repos\lab1.1\x64\Debug\parent.exe

Loaded DLL at 00007FFB552F0000 C:\Windows\SYSTEM32\ntdll.dll

NtQueryPerformanceCounter(Counter=0xbc284ff640 [1.10575e+13], Freq=null) => 0

NtProtectVirtualMemory(ProcessHandle=-1, BaseAddress=0xbc284ff688 [0x00007ffb55474000], Size=0xbc284ff680 [0x1000], NewProtect=4, OldProtect=0xbc284ff6c0 [8]) => 0

NtProtectVirtualMemory(ProcessHandle=-1, BaseAddress=0xbc284ff688 [0x00007ffb55474000], Size=0xbc284ff680 [0x1000], NewProtect=8, OldProtect=0xbc284ff6c0 [4]) => 0

NtCreateEvent(EventHandle=0x7ffb5545c478 [8], DesiredAccess=DELETE|READ_CONTROL|WRITE_DAC|WRITE_OWNER|SYNCHRONIZE|0x3, ObjectAttributes=null, EventType=0 [NotificationEvent], InitialState=false) => 0

NtQuerySystemInformation(SystemInformationClass=0 [SystemBasicInformation], SystemInformation=0xbc284ff5f0, Length=0x40, ReturnLength=null) => 0

NtQueryInformationProcess(ProcessHandle=-1, ProcessInformationClass=0x24 [ProcessCookie], ProcessInformation=0xbc284ff318, Length=4, ReturnLength=null) => 0

NtQuerySystemInformation(SystemInformationClass=0xc0 [SystemFlushInformation], SystemInformation=0xbc284ff1f0, Length=0x20, ReturnLength=null) => 0

NtQueryVirtualMemory(ProcessHandle=-1, BaseAddress=0x7ffb552f0000, MemoryInformationClass=6 [MemoryImageInformation], MemoryInformation=0xbc284ff100, Length=0x18, ReturnLength=null) => 0

NtQueryVirtualMemory(ProcessHandle=-1, BaseAddress=null, MemoryInformationClass=4 [MemoryWorkingSetExInformation], MemoryInformation=0xbc284ff1c0, Length=0x50, ReturnLength=null) => 0

NtProtectVirtualMemory(ProcessHandle=-1, BaseAddress=0xbc284ff210 [0x00007ffb55471000], Size=0xbc284ff208 [0x4000], NewProtect=2, OldProtect=0xbc284ff200 [4]) => 0

NtOpenKey(KeyHandle=0xbc284fde50 [0xc], DesiredAccess=0x1, ObjectAttributes="\Registry\MACHINE\System\CurrentControlSet\Control\Session Manager") => 0

NtQueryValueKey(KeyHandle=0xc, ValueName="RaiseExceptionOnPossibleDeadlock", KeyValueInformationClass=2 [KeyValuePartialInformation], KeyValueInformation=0xbc284fde60, Length=0x50, ResultLength=0xbc284fde58) => 0xc0000034 [2 '═x єфрхЄё эрщЄш єърчрээ√щ Їрщы.']

NtClose(Handle=0xc) => 0

NtOpenKey(KeyHandle=0xbc284fdde8 [0x10], DesiredAccess=0x9, ObjectAttributes="\Registry\Machine\Software\Microsoft\Windows NT\CurrentVersion\Image File Execution Options") => 0

NtOpenKey(KeyHandle=0xbc284fded0, DesiredAccess=0x9, ObjectAttributes=0x10:"parent.exe") => 0xc0000034 [2 '═x єфрхЄё эрщЄш єърчрээ√щ Їрщы.']

NtOpenKey(KeyHandle=0xbc284fde30, DesiredAccess=0x1, ObjectAttributes="\Registry\Machine\SYSTEM\CurrentControlSet\Control\Session Manager\Segment Heap") => 0xc0000034 [2 '═x єфрхЄё эрщЄш єърчрээ√щ Їрщы.']

NtQueryInformationProcess(ProcessHandle=-1, ProcessInformationClass=0x24 [ProcessCookie], ProcessInformation=0x7ffb5545d230, Length=4, ReturnLength=null) => 0

NtQueryInformationProcess(ProcessHandle=-1, ProcessInformationClass=0x24 [ProcessCookie], ProcessInformation=0xbc284ff1a8, Length=4, ReturnLength=null) => 0

NtQuerySecurityAttributesToken(TokenHandle=-4, Attributes="WIN://SYSAPPID", NumberOfAttributes=2, Buffer=0xbc284febe0, Length=0x330, ReturnLength=0xbc284feb98) => 0xc0000225 [1168 '▌ ыхьхэЄ эх эрщфхэ.']

NtQuerySecurityAttributesToken(TokenHandle=-4, Attributes="WIN://SYSAPPID", NumberOfAttributes=1, Buffer=0xbc284febe0, Length=0x330, ReturnLength=0xbc284feb98) => 0xc0000225 [1168 '▌ ыхьхэЄ эх эрщфхэ.']

NtOpenKey(KeyHandle=0xbc284ff120 [0xc], DesiredAccess=0x9, ObjectAttributes="\Registry\Machine\SYSTEM\CurrentControlSet\Control\Session Manager") => 0

NtQueryValueKey(KeyHandle=0xc, ValueName="ResourcePolicies", KeyValueInformationClass=2 [KeyValuePartialInformation], KeyValueInformation=0xbc284ff160, Length=0x18, ResultLength=0xbc284ff128) => 0xc0000034 [2 '═x єфрхЄё эрщЄш єърчрээ√щ Їрщы.']

NtClose(Handle=0xc) => 0

NtQueryInformationProcess(ProcessHandle=-1, ProcessInformationClass=0x24 [ProcessCookie], ProcessInformation=0xbc284ff200, Length=4, ReturnLength=null) => 0

NtQuerySystemInformation(SystemInformationClass=0 [SystemBasicInformation], SystemInformation=0xbc284ff1a0, Length=0x40, ReturnLength=null) => 0

NtQuerySystemInformation(SystemInformationClass=0x3e [SystemEmulationBasicInformation], SystemInformation=0xbc284ff1d0, Length=0x40, ReturnLength=null) => 0

NtAllocateVirtualMemoryEx(ProcessHandle=-1, lpAddress=0x7ffb5545dc38 [0x00007ff5f7e80000], ZeroBits=0x000000bc284ff150, pSize=0x102000 [0], flAllocationType=4, DataBuffer=0xbc284ff0b8, DataCount=1) => 0

NtAllocateVirtualMemoryEx(ProcessHandle=-1, lpAddress=0x7ffb5545dc30 [0x00007ff5f9e80000], ZeroBits=0x000000bc284ff158, pSize=0x1000 [0], flAllocationType=4, DataBuffer=null, DataCount=0) => 0

NtAllocateVirtualMemoryEx(ProcessHandle=-1, lpAddress=0x7ffb5545dca0 [0x00007ff4f7e60000], ZeroBits=0x000000bc284ff100, pSize=0x102000 [0], flAllocationType=4, DataBuffer=0xbc284ff068, DataCount=1) => 0

NtQuerySystemInformation(SystemInformationClass=0 [SystemBasicInformation], SystemInformation=0xbc284ff040, Length=0x40, ReturnLength=null) => 0

NtAllocateVirtualMemory(ProcessHandle=-1, lpAddress=0xbc284fec00 [0x0000025effbe0000], ZeroBits=0, pSize=0xbc284fec08 [0x00110000], flAllocationType=0x2000, flProtect=4) => 0

NtFreeVirtualMemory(ProcessHandle=-1, lpAddress=0xbc284fec00 [0x0000025effbe0000], pSize=0xbc284febf8 [0x00010000], flFreeType=0x8000) => 0

NtAllocateVirtualMemory(ProcessHandle=-1, lpAddress=0xbc284febe8 [0x0000025effbf0000], ZeroBits=0, pSize=0xbc284febe0 [0x2000], flAllocationType=0x1000, flProtect=4) => 0

NtQuerySystemInformation(SystemInformationClass=0xc5 [SystemHypervisorSharedPageInformation], SystemInformation=0xbc284ff3a8, Length=8, ReturnLength=null) => 0

NtQuerySystemInformation(SystemInformationClass=0x37 [SystemNumaProcessorMap], SystemInformation=0xbc284fee10, Length=0x408, ReturnLength=0xbc284ff230 [0x18]) => 0

NtCreateEvent(EventHandle=0xbc284ff048 [0x14], DesiredAccess=DELETE|READ_CONTROL|WRITE_DAC|WRITE_OWNER|SYNCHRONIZE|0x3, ObjectAttributes=null, EventType=1 [SynchronizationEvent], InitialState=false) => 0

NtCreateWaitCompletionPacket(WaitCompletionPacketHandle=0x25effbf0b20 [0xc], DesiredAccess=0x1, ObjectAttributes=null) => 0

NtQuerySystemInformationEx(SystemInformationClass=0x6b [SystemLogicalProcessorAndGroupInformation], QueryType=0xbc284feda0 [1], Alignment=4, SystemInformation=0x25effbf0ed0, Length=0x50, ReturnLength=0xbc284fed98 [0x30]) => 0

NtCreateIoCompletion(IoHandle=0x25effbf0c00 [0x18], DesiredAccess=DELETE|READ_CONTROL|WRITE_DAC|WRITE_OWNER|SYNCHRONIZE|0x3, ObjectAttributes=null, NumberOfConcurrentThreads=5) => 0

NtCreateWorkerFactory(WorkerFactoryHandleReturn=0x25effbf0bf8 [0x1c], DesiredAccess=DELETE|READ_CONTROL|WRITE_DAC|WRITE_OWNER|0xff, ObjectAttributes=null, CompletionPortHandle=0x18, WorkerProcessHandle=-1, StartRoutine=0x7ffb5533d110, StartParameter=0x25effbf0bc0, MaxThreadCount=0x200, StackReserve=0x00100000, StackCommit=0x1000) => 0

NtCreateTimer2(TimerHandle=0x25effbf0c50 [0x20], Unknown1=null, ObjectAttributes=null, Attributes=8, DesiredAccess=SYNCHRONIZE|0x7ffb00000002) => 0

NtCreateWaitCompletionPacket(WaitCompletionPacketHandle=0x25effbf0c58 [0x24], DesiredAccess=0x1, ObjectAttributes=null) => 0

NtAssociateWaitCompletionPacket(WaitCompletionPacketHandle=0x24, IoCompletionHandle=0x18, TargetObjectHandle=0x20, KeyContext=0x25effbf0c60, ApcContext=0x25effbf0c30, IoStatus=0, IoStatusInformation=1, AlreadySignaled=0xbc284fed60 [0]) => 0

NtCreateTimer2(TimerHandle=0x25effbf0cc8 [0x28], Unknown1=null, ObjectAttributes=null, Attributes=8, DesiredAccess=SYNCHRONIZE|0x25e00000002) => 0

NtCreateWaitCompletionPacket(WaitCompletionPacketHandle=0x25effbf0cd0 [0x2c], DesiredAccess=0x1, ObjectAttributes=null) => 0

NtAssociateWaitCompletionPacket(WaitCompletionPacketHandle=0x2c, IoCompletionHandle=0x18, TargetObjectHandle=0x28, KeyContext=0x25effbf0cd8, ApcContext=0x25effbf0c30, IoStatus=0, IoStatusInformation=0, AlreadySignaled=0xbc284fed60 [0]) => 0

NtSetInformationWorkerFactory(WorkerFactoryHandle=0x1c, InformationClass=5 [WorkerFactoryThreadMaximum], Buffer=0xbc284fee68, BufferLength=4) => 0

NtSetInformationWorkerFactory(WorkerFactoryHandle=0x1c, InformationClass=0xe [WorkerFactoryThreadSoftMaximum], Buffer=0xbc284fee68, BufferLength=4) => 0

NtSetInformationWorkerFactory(WorkerFactoryHandle=0x1c, InformationClass=3 [WorkerFactoryBindingCount], Buffer=0xbc284fef88, BufferLength=4) => 0

NtAssociateWaitCompletionPacket(WaitCompletionPacketHandle=0xc, IoCompletionHandle=0x18, TargetObjectHandle=0x14, KeyContext=0x25effbf0b38, ApcContext=0x25effbf09b0, IoStatus=0x0000025e00000000, IoStatusInformation=0, AlreadySignaled=0xbc284fefd0 [0xffbf0b00]) => 0

NtTraceControl(CtrlCode=0x1b, InputBuffer=0xbc284ff088, InputBufferLength=4, OutputBuffer=null, OutputBufferLength=0, ReturnLength=0xbc284ff040 [0]) => 0

NtTraceControl(CtrlCode=0xf, InputBuffer=0xbc284ff0e8, InputBufferLength=0xa0, OutputBuffer=0xbc284ff0e8, OutputBufferLength=0xa0, ReturnLength=0xbc284ff0e0 [0xa0]) => 0

NtTraceControl(CtrlCode=0xf, InputBuffer=0xbc284ff0e8, InputBufferLength=0xa0, OutputBuffer=0xbc284ff0e8, OutputBufferLength=0xa0, ReturnLength=0xbc284ff0e0 [0xa0]) => 0

NtTraceControl(CtrlCode=0xf, InputBuffer=0xbc284ff0e8, InputBufferLength=0xa0, OutputBuffer=0xbc284ff0e8, OutputBufferLength=0xa0, ReturnLength=0xbc284ff0e0 [0xa0]) => 0

NtAllocateVirtualMemory(ProcessHandle=-1, lpAddress=0xbc284fea50 [0x0000025effbf2000], ZeroBits=0, pSize=0xbc284feaf8 [0x2000], flAllocationType=0x1000, flProtect=4) => 0

NtFreeVirtualMemory(ProcessHandle=-1, lpAddress=0xbc284ff230 [0x0000025effb70000], pSize=0xbc284ff238 [0x00020000], flFreeType=0x8000) => 0

NtProtectVirtualMemory(ProcessHandle=-1, BaseAddress=0xbc284ff210 [0x00007ffb55471000], Size=0xbc284ff208 [0x4000], NewProtect=4, OldProtect=0xbc284ff200 [2]) => 0

NtOpenDirectoryObject(DirectoryHandle=0x7ffb55471298 [0x3c], DesiredAccess=0x3, ObjectAttributes="\KnownDlls") => 0

NtProtectVirtualMemory(ProcessHandle=-1, BaseAddress=0xbc284ff210 [0x00007ffb55471000], Size=0xbc284ff208 [0x4000], NewProtect=2, OldProtect=0xbc284ff200 [4]) => 0

NtOpenSymbolicLinkObject(LinkHandle=0xbc284ff368 [0x40], DesiredAccess=0x1, ObjectAttributes=0x3c:"KnownDllPath") => 0

NtQuerySymbolicLinkObject(LinkHandle=0x40, LinkTarget="C:\Windows\System32", ReturnedLength=0xbc284ff31c [0x28]) => 0

NtClose(Handle=0x40) => 0

NtProtectVirtualMemory(ProcessHandle=-1, BaseAddress=0xbc284ff1e0 [0x00007ffb55471000], Size=0xbc284ff1d8 [0x4000], NewProtect=4, OldProtect=0xbc284ff1d0 [2]) => 0

NtProtectVirtualMemory(ProcessHandle=-1, BaseAddress=0xbc284ff210 [0x00007ffb55471000], Size=0xbc284ff208 [0x4000], NewProtect=2, OldProtect=0xbc284ff200 [4]) => 0

NtCreateEvent(EventHandle=0x7ffb5545c380 [0x44], DesiredAccess=DELETE|READ_CONTROL|WRITE_DAC|WRITE_OWNER|SYNCHRONIZE|0x3, ObjectAttributes=null, EventType=1 [SynchronizationEvent], InitialState=false) => 0

NtCreateEvent(EventHandle=0x7ffb5545c3b0 [0x48], DesiredAccess=DELETE|READ_CONTROL|WRITE_DAC|WRITE_OWNER|SYNCHRONIZE|0x3, ObjectAttributes=null, EventType=1 [SynchronizationEvent], InitialState=false) => 0

NtQueryPerformanceCounter(Counter=0xbc284ff160 [1.10575e+13], Freq=null) => 0

NtProtectVirtualMemory(ProcessHandle=-1, BaseAddress=0xbc284ff170 [0x00007ffb55471000], Size=0xbc284ff168 [0x4000], NewProtect=4, OldProtect=0xbc284ff160 [2]) => 0

NtProtectVirtualMemory(ProcessHandle=-1, BaseAddress=0xbc284ff170 [0x00007ffb55471000], Size=0xbc284ff168 [0x4000], NewProtect=2, OldProtect=0xbc284ff160 [4]) => 0

NtOpenFile(FileHandle=0xbc284ff218 [0x40], DesiredAccess=SYNCHRONIZE|0x20, ObjectAttributes="\??\C:\Users\T470\source\repos\lab1.1\x64\Debug\", IoStatusBlock=0xbc284ff188 [0/1], ShareAccess=3, OpenOptions=0x21) => 0

NtQueryVolumeInformationFile(FileHandle=0x40, IoStatusBlock=0xbc284ff188 [0/8], FsInformation=0xbc284ff170, Length=8, FsInformationClass=4 [FsDeviceInformation]) => 0

NtSetEvent(EventHandle=0x44, PrevState=null) => 0

NtSetInformationProcess(ProcessHandle=-1, ProcessInformationClass=0x5d [ProcessLoaderDetour], ProcessInformation=0xbc284feed0, Length=4) => 0

NtOpenSection(SectionHandle=0xbc284feea8 [0x4c], DesiredAccess=0xd, ObjectAttributes=0x3c:"KERNEL32.DLL") => 0

Loaded DLL at 00007FFB551E0000 C:\Windows\System32\KERNEL32.DLL

NtMapViewOfSection(SectionHandle=0x4c, ProcessHandle=-1, BaseAddress=0x25effbf32a0 [0x00007ffb551e0000], ZeroBits=0, CommitSize=0, SectionOffset=null, ViewSize=0x25effbf3200 [0x000c2000], InheritDisposition=1 [ViewShare], AllocationType=0x00800000, Protect=0x80) => 0

NtQueryPerformanceCounter(Counter=0xbc284fed20 [1.10575e+13], Freq=null) => 0

NtProtectVirtualMemory(ProcessHandle=-1, BaseAddress=0xbc284fed38 [0x00007ffb5529f000], Size=0xbc284fed30 [0x1000], NewProtect=2, OldProtect=0xbc284feda0 [4]) => 0

NtProtectVirtualMemory(ProcessHandle=-1, BaseAddress=0xbc284fed30 [0x00007ffb55471000], Size=0xbc284fed28 [0x4000], NewProtect=4, OldProtect=0xbc284fed20 [2]) => 0

NtProtectVirtualMemory(ProcessHandle=-1, BaseAddress=0xbc284fed30 [0x00007ffb55471000], Size=0xbc284fed28 [0x4000], NewProtect=2, OldProtect=0xbc284fed20 [4]) => 0

NtProtectVirtualMemory(ProcessHandle=-1, BaseAddress=0xbc284fed80 [0x00007ffb55263000], Size=0xbc284fed88 [0x4000], NewProtect=4, OldProtect=0x25effbf31e8 [2]) => 0

NtOpenSection(SectionHandle=0xbc284fe818 [0x5c], DesiredAccess=0xd, ObjectAttributes=0x3c:"KERNELBASE.dll") => 0

Loaded DLL at 00007FFB52990000 C:\Windows\System32\KERNELBASE.dll

NtMapViewOfSection(SectionHandle=0x5c, ProcessHandle=-1, BaseAddress=0x25effbf3980 [0x00007ffb52990000], ZeroBits=0, CommitSize=0, SectionOffset=null, ViewSize=0x25effbf38e0 [0x002fe000], InheritDisposition=1 [ViewShare], AllocationType=0x00800000, Protect=0x80) => 0

NtQueryPerformanceCounter(Counter=0xbc284fe690 [1.10575e+13], Freq=null) => 0

NtProtectVirtualMemory(ProcessHandle=-1, BaseAddress=0xbc284fe6a8 [0x00007ffb52c63000], Size=0xbc284fe6a0 [0x1000], NewProtect=2, OldProtect=0xbc284fe710 [4]) => 0

NtProtectVirtualMemory(ProcessHandle=-1, BaseAddress=0xbc284fe6a0 [0x00007ffb55471000], Size=0xbc284fe698 [0x4000], NewProtect=4, OldProtect=0xbc284fe690 [2]) => 0

NtProtectVirtualMemory(ProcessHandle=-1, BaseAddress=0xbc284fe6a0 [0x00007ffb55471000], Size=0xbc284fe698 [0x4000], NewProtect=2, OldProtect=0xbc284fe690 [4]) => 0

NtProtectVirtualMemory(ProcessHandle=-1, BaseAddress=0xbc284fe6f0 [0x00007ffb52b7a000], Size=0xbc284fe6f8 [0x3000], NewProtect=4, OldProtect=0x25effbf38c8 [2]) => 0

NtClose(Handle=0x5c) => 0

NtProtectVirtualMemory(ProcessHandle=-1, BaseAddress=0x25effbf31c8 [0x00007ffb55263000], Size=0x25effbf31d0 [0x4000], NewProtect=2, OldProtect=0xbc284fec70 [4]) => 0

NtClose(Handle=0x4c) => 0

NtProtectVirtualMemory(ProcessHandle=-1, BaseAddress=0x25effbf38a8 [0x00007ffb52b7a000], Size=0x25effbf38b0 [0x3000], NewProtect=2, OldProtect=0xbc284fed70 [4]) => 0

NtSetInformationProcess(ProcessHandle=-1, ProcessInformationClass=0x23 [ProcessTlsInformation], ProcessInformation=0xbc284fecd0, Length=0x28) => 0

NtApphelpCacheControl(ServiceClass=6, ServiceData="") => 0

NtApphelpCacheControl(ServiceClass=6, ServiceData="") => 0

NtSetInformationVirtualMemory(ProcessHandle=-1, VmInformationClass=4, NumberOfEntries=1, VirtualAddresses=0xbc284fed90, VmInformation=0xbc284fee68, VmInformationLength=4) => 0xc00000bb [50 '╥ръющ чряЁюё эх яюффхЁцштрхЄё .']

NtQuerySystemInformation(SystemInformationClass=0x32 [SystemRangeStartInformation], SystemInformation=0xbc284fe9f0, Length=8, ReturnLength=null) => 0

NtQuerySystemInformation(SystemInformationClass=0 [SystemBasicInformation], SystemInformation=0x7ffb52c4ee60, Length=0x40, ReturnLength=null) => 0

NtOpenSection(SectionHandle=0xbc284fe7b0 [0x5c], DesiredAccess=0x4, ObjectAttributes="\Sessions\16\Windows\SharedSection") => 0

NtCreateSection(SectionHandle=0xbc284fe7d0 [0x4c], DesiredAccess=DELETE|READ_CONTROL|WRITE_DAC|WRITE_OWNER|0x1f, ObjectAttributes=null, SectionSize=0xbc284fe7c0 [65536], Protect=4, Attributes=0x08000000, FileHandle=0) => 0

NtConnectPort(PortHandle=0x7ffb5545cc48 [0x60], PortName="\Sessions\16\Windows\ApiPort", SecurityQos=0xbc284fe8f0, ClientView=0xbc284fe7e8, ServerView=0xbc284fe818, MaxMsgLength=0xbc284fe7e0 [0x3b8], ConnectionInfo=0xbc284fe860, ConnectionInfoLength=0xbc284fe7b8 [0x30]) => 0

NtClose(Handle=0x4c) => 0

NtMapViewOfSection(SectionHandle=0x5c, ProcessHandle=-1, BaseAddress=0xbc284fe7c8 [0x00007ff4f7d60000], ZeroBits=0, CommitSize=0, SectionOffset=null, ViewSize=0xbc284fe7d8 [0x00100000], InheritDisposition=2 [ViewUnmap], AllocationType=0x00500000, Protect=2) => 0

NtClose(Handle=0x5c) => 0

NtQueryVirtualMemory(ProcessHandle=-1, BaseAddress=0x25effb70000, MemoryInformationClass=0 [MemoryBasicInformation], MemoryInformation=0xbc284fe4a0, Length=0x30, ReturnLength=null) => 0

NtAllocateVirtualMemory(ProcessHandle=-1, lpAddress=0xbc284fe1b0 [0x0000025effbf4000], ZeroBits=0, pSize=0xbc284fe258 [0x1000], flAllocationType=0x1000, flProtect=4) => 0

NtInitializeNlsFiles(BaseAddress=0xbc284fe990 [0x0000025effcf0000], DefaultLocaleId=0x7ffb52c508e0 [0x419], DefaultCasingTableSize=null) => 0

NtCreateFile(FileHandle=0xbc284fe9f8 [0x64], DesiredAccess=READ_CONTROL|SYNCHRONIZE|0x19f, ObjectAttributes=4:"\Connect", IoStatusBlock=0xbc284fe3b0 [0/0x18], AllocationSize=null, FileAttributes=0, ShareAccess=7, CreateDisposition=2, CreateOptions=0x20, EaBuffer=0x25effbf4800, EaLength=0x54b) => 0

NtDeviceIoControlFile(FileHandle=0x64, Event=0, ApcRoutine=null, ApcContext=null, IoStatusBlock=0xbc284fe940 [0/0], IoControlCode=0x00500023, InputBuffer=null, InputBufferLength=0, OutputBuffer=0xbc284fe960, OutputBufferLength=8) => 0

NtSetInformationProcess(ProcessHandle=-1, ProcessInformationClass=0x31 [ProcessOwnerInformation], ProcessInformation=0xbc284fe968, Length=8) => 0

NtDeviceIoControlFile(FileHandle=0x64, Event=0, ApcRoutine=null, ApcContext=null, IoStatusBlock=0xbc284fe730, IoControlCode=0x00500016, InputBuffer=0xbc284fe740, InputBufferLength=0x30, OutputBuffer=null, OutputBufferLength=0) => 0xc00700bb [187 '═x эрщфхэю єърчрээюх шь ёшёЄхьэюую ёхьрЇюЁр.']

NtTraceControl(CtrlCode=0xf, InputBuffer=0xbc284fe858, InputBufferLength=0xa0, OutputBuffer=0xbc284fe858, OutputBufferLength=0xa0, ReturnLength=0xbc284fe850 [0xa0]) => 0

NtTraceControl(CtrlCode=0x1e, InputBuffer=0xbc284fe898, InputBufferLength=0x18, OutputBuffer=0xbc284fe8b0, OutputBufferLength=0x78, ReturnLength=0xbc284fe890 [0]) => 0

NtOpenProcessToken(ProcessHandle=-1, DesiredAccess=0x8, TokenHandle=0xbc284fe890 [0x4c]) => 0

NtQueryInformationToken(TokenHandle=0x4c, TokenInformationClass=0xc [TokenSessionId], TokenInformation=0xbc284fe1b0, Length=4, ReturnLength=0xbc284fe190 [4]) => 0

NtQueryInformationToken(TokenHandle=0x4c, TokenInformationClass=0x1d [TokenIsAppContainer], TokenInformation=0xbc284fe1f8, Length=4, ReturnLength=0xbc284fe190 [4]) => 0

NtQueryInformationToken(TokenHandle=0x4c, TokenInformationClass=0x2a [TokenPrivateNameSpace], TokenInformation=0xbc284fe194, Length=4, ReturnLength=0xbc284fe190 [4]) => 0

NtOpenDirectoryObject(DirectoryHandle=0xbc284fe1b8 [0x68], DesiredAccess=0xf, ObjectAttributes="\Sessions\16\BaseNamedObjects") => 0

NtQueryInformationToken(TokenHandle=0x4c, TokenInformationClass=0x2c [TokenBnoIsolation], TokenInformation=0xbc284fe4b0, Length=0x120, ReturnLength=0xbc284fe190 [0x10]) => 0

NtClose(Handle=0x4c) => 0

NtCreateMutant(MutantHandle=0xbc284fe8e8 [0x4c], DesiredAccess=DELETE|READ_CONTROL|WRITE_DAC|WRITE_OWNER|SYNCHRONIZE|0x1, ObjectAttributes=0x68:"Local\SM0:44704:304:WilStaging_02", InitialOwner=false) => 0

NtWaitForSingleObject(Handle=0x4c, Alertable=false, Timeout=null) => 0

NtOpenSemaphore(SemaphoreHandle=0xbc284fe6d8, DesiredAccess=DELETE|READ_CONTROL|WRITE_DAC|WRITE_OWNER|SYNCHRONIZE|0x3, ObjectAttributes=0x68:"Local\SM0:44704:304:WilStaging_02_p0") => 0xc0000034 [2 '═x єфрхЄё эрщЄш єърчрээ√щ Їрщы.']

NtCreateSemaphore(SemaphoreHandle=0xbc284fe5c8 [0x6c], DesiredAccess=DELETE|READ_CONTROL|WRITE_DAC|WRITE_OWNER|SYNCHRONIZE|0x3, ObjectAttributes=0x68:"Local\SM0:44704:304:WilStaging_02_p0", InitialCount=0x3fefd24c, MaxCount=0x3fefd24c) => 0

NtCreateSemaphore(SemaphoreHandle=0xbc284fe5c8 [0x70], DesiredAccess=DELETE|READ_CONTROL|WRITE_DAC|WRITE_OWNER|SYNCHRONIZE|0x3, ObjectAttributes=0x68:"Local\SM0:44704:304:WilStaging_02_p0h", InitialCount=0x12f, MaxCount=0x12f) => 0

NtReleaseMutant(MutantHandle=0x4c, PreviousCount=null) => 0

NtQueryWnfStateData(StateName=0xbc284fe940 [0xa3bc0875], TypeId=0xbc284fe9e8, ExplicitScope=null, ChangeStamp=0xbc284fe934 [8], Buffer=0xbc284fd930, BufferSize=0xbc284fe930 [8]) => 0

NtCreateEvent(EventHandle=0xbc284fe8a0 [0x74], DesiredAccess=DELETE|READ_CONTROL|WRITE_DAC|WRITE_OWNER|SYNCHRONIZE|0x3, ObjectAttributes=null, EventType=1 [SynchronizationEvent], InitialState=false) => 0

NtAllocateVirtualMemory(ProcessHandle=-1, lpAddress=0xbc284fe060 [0x0000025effbf5000], ZeroBits=0, pSize=0xbc284fe108 [0x1000], flAllocationType=0x1000, flProtect=4) => 0

NtCreateWaitCompletionPacket(WaitCompletionPacketHandle=0x25effbf4fd0 [0x78], DesiredAccess=0x1, ObjectAttributes=null) => 0

NtSetWnfProcessNotificationEvent(NotificationEvent=0x74) => 0

NtAssociateWaitCompletionPacket(WaitCompletionPacketHandle=0x78, IoCompletionHandle=0x18, TargetObjectHandle=0x74, KeyContext=0x25effbf4fe8, ApcContext=0x25effbf4e60, IoStatus=0x0000025e00000000, IoStatusInformation=0, AlreadySignaled=0xbc284fe820 [0xffbf0b00]) => 0

NtSubscribeWnfStateChange(StateName=0x25effbf5160 [0xa3bc0875], ChangeStamp=8, EventMask=0x11, SubscriptionId=0xbc284fe910 [0x000343dc]) => 0

NtQueryWnfStateData(StateName=0xbc284fea80 [0xa3bc7c75], TypeId=null, ExplicitScope=null, ChangeStamp=0xbc284fea78 [0], Buffer=null, BufferSize=0xbc284fea7c [0]) => 0

NtSubscribeWnfStateChange(StateName=0x25effbf5490 [0xa3bc7c75], ChangeStamp=0, EventMask=0x11, SubscriptionId=0xbc284fe8f0 [0x000343dd]) => 0

NtQueryWnfStateData(StateName=0xbc284fea80 [0xa3bc88f5], TypeId=null, ExplicitScope=null, ChangeStamp=0xbc284fea78 [0], Buffer=null, BufferSize=0xbc284fea7c [0]) => 0

NtSubscribeWnfStateChange(StateName=0x25effbf5640 [0xa3bc88f5], ChangeStamp=0, EventMask=0x11, SubscriptionId=0xbc284fe8f0 [0x000343de]) => 0

NtQuerySystemInformationEx(SystemInformationClass=0xd3 [SystemFeatureConfigurationSectionInformation], QueryType=0xbc284fe830 [0], Alignment=0x18, SystemInformation=0xbc284fe850, Length=0x50, ReturnLength=null) => 0

NtMapViewOfSection(SectionHandle=0x7c, ProcessHandle=-1, BaseAddress=0xbc284fe800 [0x0000025effb80000], ZeroBits=0, CommitSize=0, SectionOffset=null, ViewSize=0xbc284fe808 [0x1000], InheritDisposition=2 [ViewUnmap], AllocationType=0, Protect=2) => 0

NtMapViewOfSection(SectionHandle=0x80, ProcessHandle=-1, BaseAddress=0xbc284fe800 [0x0000025effbe0000], ZeroBits=0, CommitSize=0, SectionOffset=null, ViewSize=0xbc284fe808 [0x1000], InheritDisposition=2 [ViewUnmap], AllocationType=0, Protect=2) => 0

NtMapViewOfSection(SectionHandle=0x84, ProcessHandle=-1, BaseAddress=0xbc284fe800 [0x0000025effdc0000], ZeroBits=0, CommitSize=0, SectionOffset=null, ViewSize=0xbc284fe808 [0x1000], InheritDisposition=2 [ViewUnmap], AllocationType=0, Protect=2) => 0

NtClose(Handle=0x7c) => 0

NtClose(Handle=0x80) => 0

NtClose(Handle=0x84) => 0

NtQueryWnfStateData(StateName=0xbc284fe838 [0xa3bc7c75], TypeId=null, ExplicitScope=null, ChangeStamp=0xbc284fe8c8 [0], Buffer=0xbc284fe920, BufferSize=0xbc284fe820 [0]) => 0

NtSetTimer2(TimerHandle=0x28, DueTime=0xbc284fe8b0 [-3e+09], Period=null, Parameters=0xbc284fe8b8) => 0

NtOpenKey(KeyHandle=0xbc284fea80, DesiredAccess=KEY_READ, ObjectAttributes="\Registry\Machine\System\CurrentControlSet\Control\StateSeparation\RedirectionMap\Keys") => 0xc0000034 [2 '═x єфрхЄё эрщЄш єърчрээ√щ Їрщы.']

NtTraceControl(CtrlCode=0xf, InputBuffer=0xbc284fea98, InputBufferLength=0xa0, OutputBuffer=0xbc284fea98, OutputBufferLength=0xa0, ReturnLength=0xbc284fea90 [0xa0]) => 0

NtTraceControl(CtrlCode=0x1e, InputBuffer=0xbc284fead8, InputBufferLength=0x18, OutputBuffer=0xbc284feaf0, OutputBufferLength=0x78, ReturnLength=0xbc284fead0 [0]) => 0

NtAllocateVirtualMemory(ProcessHandle=-1, lpAddress=0xbc284fe3b0 [0x0000025effbf6000], ZeroBits=0, pSize=0xbc284fe458 [0x1000], flAllocationType=0x1000, flProtect=4) => 0

NtTraceControl(CtrlCode=0xf, InputBuffer=0xbc284feac8, InputBufferLength=0xa0, OutputBuffer=0xbc284feac8, OutputBufferLength=0xa0, ReturnLength=0xbc284feac0 [0xa0]) => 0

NtTraceControl(CtrlCode=0x1e, InputBuffer=0xbc284feb08, InputBufferLength=0x18, OutputBuffer=0xbc284feb20, OutputBufferLength=0x78, ReturnLength=0xbc284feb00 [0]) => 0

NtSetInformationVirtualMemory(ProcessHandle=-1, VmInformationClass=4, NumberOfEntries=1, VirtualAddresses=0xbc284fedd0, VmInformation=0xbc284feea8, VmInformationLength=4) => 0xc00000bb [50 '╥ръющ чряЁюё эх яюффхЁцштрхЄё .']

NtOpenKey(KeyHandle=0xbc284fe9b0, DesiredAccess=0x9, ObjectAttributes=0x10:"parent.exe") => 0xc0000034 [2 '═х єфрхЄё эрщЄш єърчрээ√щ Їрщы.']

NtTraceControl(CtrlCode=0xf, InputBuffer=0xbc284fe8b8, InputBufferLength=0xa0, OutputBuffer=0xbc284fe8b8, OutputBufferLength=0xa0, ReturnLength=0xbc284fe8b0 [0xa0]) => 0

NtTraceControl(CtrlCode=0x1e, InputBuffer=0xbc284fe8f8, InputBufferLength=0x18, OutputBuffer=0xbc284fe910, OutputBufferLength=0x78, ReturnLength=0xbc284fe8f0 [0]) => 0

NtQuerySystemInformation(SystemInformationClass=0 [SystemBasicInformation], SystemInformation=0x7ffb55297aa0, Length=0x40, ReturnLength=null) => 0

NtSetEvent(EventHandle=0x44, PrevState=null) => 0

NtProtectVirtualMemory(ProcessHandle=-1, BaseAddress=0xbc284feae8 [0x00007ffb52c63000], Size=0xbc284feae0 [0x1000], NewProtect=4, OldProtect=0xbc284feaf8 [2]) => 0

NtProtectVirtualMemory(ProcessHandle=-1, BaseAddress=0xbc284feae8 [0x00007ffb52c63000], Size=0xbc284feae0 [0x1000], NewProtect=2, OldProtect=0xbc284feaf8 [4]) => 0

NtProtectVirtualMemory(ProcessHandle=-1, BaseAddress=0xbc284feae8 [0x00007ffb52c63000], Size=0xbc284feae0 [0x1000], NewProtect=4, OldProtect=0xbc284feaf8 [2]) => 0

NtProtectVirtualMemory(ProcessHandle=-1, BaseAddress=0xbc284feae8 [0x00007ffb52c63000], Size=0xbc284feae0 [0x1000], NewProtect=2, OldProtect=0xbc284feaf8 [4]) => 0

NtProtectVirtualMemory(ProcessHandle=-1, BaseAddress=0xbc284feae8 [0x00007ffb52c63000], Size=0xbc284feae0 [0x1000], NewProtect=4, OldProtect=0xbc284feaf8 [2]) => 0

NtProtectVirtualMemory(ProcessHandle=-1, BaseAddress=0xbc284feae8 [0x00007ffb52c63000], Size=0xbc284feae0 [0x1000], NewProtect=2, OldProtect=0xbc284feaf8 [4]) => 0

NtProtectVirtualMemory(ProcessHandle=-1, BaseAddress=0xbc284feae8 [0x00007ffb52c63000], Size=0xbc284feae0 [0x1000], NewProtect=4, OldProtect=0xbc284feaf8 [2]) => 0

NtProtectVirtualMemory(ProcessHandle=-1, BaseAddress=0xbc284feae8 [0x00007ffb52c63000], Size=0xbc284feae0 [0x1000], NewProtect=2, OldProtect=0xbc284feaf8 [4]) => 0

NtProtectVirtualMemory(ProcessHandle=-1, BaseAddress=0xbc284feae8 [0x00007ffb52c63000], Size=0xbc284feae0 [0x1000], NewProtect=4, OldProtect=0xbc284feaf8 [2]) => 0

NtProtectVirtualMemory(ProcessHandle=-1, BaseAddress=0xbc284feae8 [0x00007ffb52c63000], Size=0xbc284feae0 [0x1000], NewProtect=2, OldProtect=0xbc284feaf8 [4]) => 0

NtProtectVirtualMemory(ProcessHandle=-1, BaseAddress=0xbc284feae8 [0x00007ffb52c63000], Size=0xbc284feae0 [0x1000], NewProtect=4, OldProtect=0xbc284feaf8 [2]) => 0

NtProtectVirtualMemory(ProcessHandle=-1, BaseAddress=0xbc284feae8 [0x00007ffb52c63000], Size=0xbc284feae0 [0x1000], NewProtect=2, OldProtect=0xbc284feaf8 [4]) => 0

NtProtectVirtualMemory(ProcessHandle=-1, BaseAddress=0xbc284feae8 [0x00007ffb52c63000], Size=0xbc284feae0 [0x1000], NewProtect=4, OldProtect=0xbc284feaf8 [2]) => 0

NtProtectVirtualMemory(ProcessHandle=-1, BaseAddress=0xbc284feae8 [0x00007ffb52c63000], Size=0xbc284feae0 [0x1000], NewProtect=2, OldProtect=0xbc284feaf8 [4]) => 0

NtProtectVirtualMemory(ProcessHandle=-1, BaseAddress=0xbc284feae8 [0x00007ffb52c63000], Size=0xbc284feae0 [0x1000], NewProtect=4, OldProtect=0xbc284feaf8 [2]) => 0

NtProtectVirtualMemory(ProcessHandle=-1, BaseAddress=0xbc284feae8 [0x00007ffb52c63000], Size=0xbc284feae0 [0x1000], NewProtect=2, OldProtect=0xbc284feaf8 [4]) => 0

NtProtectVirtualMemory(ProcessHandle=-1, BaseAddress=0xbc284feae8 [0x00007ffb52c63000], Size=0xbc284feae0 [0x1000], NewProtect=4, OldProtect=0xbc284feaf8 [2]) => 0

NtProtectVirtualMemory(ProcessHandle=-1, BaseAddress=0xbc284feae8 [0x00007ffb52c63000], Size=0xbc284feae0 [0x1000], NewProtect=2, OldProtect=0xbc284feaf8 [4]) => 0

NtProtectVirtualMemory(ProcessHandle=-1, BaseAddress=0xbc284feae8 [0x00007ffb52c63000], Size=0xbc284feae0 [0x1000], NewProtect=4, OldProtect=0xbc284feaf8 [2]) => 0

NtProtectVirtualMemory(ProcessHandle=-1, BaseAddress=0xbc284feae8 [0x00007ffb52c63000], Size=0xbc284feae0 [0x1000], NewProtect=2, OldProtect=0xbc284feaf8 [4]) => 0

NtOpenKey(KeyHandle=0xbc284ff0d0, DesiredAccess=0x3, ObjectAttributes="\Registry\MACHINE\System\CurrentControlSet\Control\SafeBoot\Option") => 0xc0000034 [2 '═x єфрхЄё эрщЄш єърчрээ√щ Їрщы.']

NtOpenKey(KeyHandle=0xbc284ff0b0, DesiredAccess=KEY_READ, ObjectAttributes="\Registry\Machine\System\CurrentControlSet\Control\Srp\GP\DLL") => 0xc0000034 [2 '═x єфрхЄё эрщЄш єърчрээ√щ Їрщы.']

NtOpenKey(KeyHandle=0xbc284ff0a8 [0x7c], DesiredAccess=0x1, ObjectAttributes="\Registry\Machine\Software\Policies\Microsoft\Windows\Safer\CodeIdentifiers") => 0

NtQueryValueKey(KeyHandle=0x7c, ValueName="TransparentEnabled", KeyValueInformationClass=2 [KeyValuePartialInformation], KeyValueInformation=0xbc284ff160, Length=0x50, ResultLength=0xbc284ff0a0) => 0xc0000034 [2 '═x єфрхЄё эрщЄш єърчрээ√щ Їрщы.']

NtClose(Handle=0x7c) => 0

NtQueryInformationToken(TokenHandle=-6, TokenInformationClass=1 [TokenUser], TokenInformation=0xbc284feff0, Length=0x58, ReturnLength=0xbc284fefe8 [0x2c]) => 0

NtOpenKey(KeyHandle=0xbc284ff0a8, DesiredAccess=0x1, ObjectAttributes="\REGISTRY\USER\S-1-5-21-279210374-529612743-1025975986-1001\Software\Policies\Microsoft\Windows\Safer\CodeIdentifiers") => 0xc0000034 [2 '═x єфрхЄё эрщЄш єърчрээ√щ Їрщы.']

NtOpenKey(KeyHandle=0xbc284ff190 [0x7c], DesiredAccess=KEY_READ, ObjectAttributes="\Registry\Machine\System\CurrentControlSet\Control\FileSystem\") => 0

NtQueryValueKey(KeyHandle=0x7c, ValueName="LongPathsEnabled", KeyValueInformationClass=2 [KeyValuePartialInformation], KeyValueInformation=0xbc284ff1d0, Length=0x14, ResultLength=0xbc284ff198 [0x10]) => 0

NtClose(Handle=0x7c) => 0

NtSetInformationProcess(ProcessHandle=-1, ProcessInformationClass=0x5d [ProcessLoaderDetour], ProcessInformation=0xbc284ff170, Length=4) => 0

NtQuerySystemInformationEx(SystemInformationClass=0x6b [SystemLogicalProcessorAndGroupInformation], QueryType=0xbc284ff0f0 [1], Alignment=4, SystemInformation=0x25effbf3160, Length=0x50, ReturnLength=0xbc284ff0e8 [0x30]) => 0

NtCreateIoCompletion(IoHandle=0x25effbf6230 [0x7c], DesiredAccess=DELETE|READ_CONTROL|WRITE_DAC|WRITE_OWNER|SYNCHRONIZE|0x3, ObjectAttributes=null, NumberOfConcurrentThreads=5) => 0

NtCreateWorkerFactory(WorkerFactoryHandleReturn=0x25effbf6228 [0x8c], DesiredAccess=DELETE|READ_CONTROL|WRITE_DAC|WRITE_OWNER|0xff, ObjectAttributes=null, CompletionPortHandle=0x7c, WorkerProcessHandle=-1, StartRoutine=0x7ffb5533d110, StartParameter=0x25effbf61f0, MaxThreadCount=0x200, StackReserve=0x00100000, StackCommit=0x1000) => 0

NtSetInformationWorkerFactory(WorkerFactoryHandle=0x8c, InformationClass=0xd [WorkerFactoryFlags], Buffer=0xbc284ff1b8, BufferLength=4) => 0

NtCreateTimer2(TimerHandle=0x25effbf6280 [0x90], Unknown1=null, ObjectAttributes=null, Attributes=8, DesiredAccess=SYNCHRONIZE|0x2) => 0

NtCreateWaitCompletionPacket(WaitCompletionPacketHandle=0x25effbf6288 [0x94], DesiredAccess=0x1, ObjectAttributes=null) => 0

NtAssociateWaitCompletionPacket(WaitCompletionPacketHandle=0x94, IoCompletionHandle=0x7c, TargetObjectHandle=0x90, KeyContext=0x25effbf6290, ApcContext=0x25effbf6260, IoStatus=0, IoStatusInformation=1, AlreadySignaled=0xbc284ff0b0 [0]) => 0

NtCreateTimer2(TimerHandle=0x25effbf62f8 [0x98], Unknown1=null, ObjectAttributes=null, Attributes=8, DesiredAccess=SYNCHRONIZE|0x25e00000002) => 0

NtCreateWaitCompletionPacket(WaitCompletionPacketHandle=0x25effbf6300 [0x9c], DesiredAccess=0x1, ObjectAttributes=null) => 0

NtAssociateWaitCompletionPacket(WaitCompletionPacketHandle=0x9c, IoCompletionHandle=0x7c, TargetObjectHandle=0x98, KeyContext=0x25effbf6308, ApcContext=0x25effbf6260, IoStatus=0, IoStatusInformation=0, AlreadySignaled=0xbc284ff0b0 [0]) => 0

NtSetInformationWorkerFactory(WorkerFactoryHandle=0x8c, InformationClass=2 [WorkerFactoryIdleTimeout], Buffer=0xbc284ff1b8, BufferLength=8) => 0

NtSetInformationWorkerFactory(WorkerFactoryHandle=0x8c, InformationClass=5 [WorkerFactoryThreadMaximum], Buffer=0xbc284ff1b8, BufferLength=4) => 0

NtProtectVirtualMemory(ProcessHandle=-1, BaseAddress=0xbc284ff1c0 [0x00007ff6c36d3000], Size=0xbc284ff1c8 [0x1000], NewProtect=4, OldProtect=0xbc284ff558 [2]) => 0

NtOpenSection(SectionHandle=0xbc284fec58, DesiredAccess=0xd, ObjectAttributes=0x3c:"VCRUNTIME140D.dll") => 0xc0000034 [2 '═x єфрхЄё эрщЄш єърчрээ√щ Їрщы.']

NtOpenSection(SectionHandle=0xbc284fec58, DesiredAccess=0xd, ObjectAttributes=0x3c:"ucrtbased.dll") => 0xc0000034 [2 '═x єфрхЄё эрщЄш єърчрээ√щ Їрщы.']

NtQueryWnfStateData(StateName=0xbc284fea50 [0xa3bc7c75], TypeId=null, ExplicitScope=null, ChangeStamp=0xbc284feae8 [0], Buffer=0xbc284feb40, BufferSize=0xbc284fea40 [0]) => 0

NtQueryWnfStateData(StateName=0xbc284fe8f0 [0xa3bc7c75], TypeId=null, ExplicitScope=null, ChangeStamp=0xbc284fe988 [0], Buffer=0xbc284fe9e0, BufferSize=0xbc284fe8e0 [0]) => 0

NtOpenKey(KeyHandle=0xbc284fecc0 [0xa0], DesiredAccess=0x1, ObjectAttributes="\Registry\MACHINE\System\CurrentControlSet\Control\Session Manager") => 0

NtQueryValueKey(KeyHandle=0xa0, ValueName="SafeDllSearchMode", KeyValueInformationClass=2 [KeyValuePartialInformation], KeyValueInformation=0xbc284fecd0, Length=0x10, ResultLength=0xbc284fecc8) => 0xc0000034 [2 '═x єфрхЄё эрщЄш єърчрээ√щ Їрщы.']

NtAllocateVirtualMemory(ProcessHandle=-1, lpAddress=0xbc284fe4a0 [0x0000025effbf7000], ZeroBits=0, pSize=0xbc284fe548 [0x1000], flAllocationType=0x1000, flProtect=4) => 0

NtQueryAttributesFile(ObjectAttributes="\??\C:\Users\T470\source\repos\lab1.1\x64\Debug\VCRUNTIME140D.dll", Attributes=0xbc284fed68) => 0xc0000034 [2 '═x єфрхЄё эрщЄш єърчрээ√щ Їрщы.']

NtQueryAttributesFile(ObjectAttributes="\??\C:\Windows\SYSTEM32\VCRUNTIME140D.dll", Attributes=0xbc284fed68 [ARCHIVE]) => 0

NtOpenFile(FileHandle=0xbc284fee70 [0xa4], DesiredAccess=SYNCHRONIZE|0x21, ObjectAttributes="\??\C:\Windows\SYSTEM32\VCRUNTIME140D.dll", IoStatusBlock=0xbc284feed8 [0/1], ShareAccess=5, OpenOptions=0x60) => 0

NtCreateSection(SectionHandle=0xbc284fee78 [0xa8], DesiredAccess=0xd, ObjectAttributes=null, SectionSize=null, Protect=0x10, Attributes=0x01000000, FileHandle=0xa4) => 0

Loaded DLL at 00007FFB41E70000 C:\Windows\SYSTEM32\VCRUNTIME140D.dll

NtMapViewOfSection(SectionHandle=0xa8, ProcessHandle=-1, BaseAddress=0x25effbf6430 [0x00007ffb41e70000], ZeroBits=0, CommitSize=0, SectionOffset=null, ViewSize=0x25effbf3700 [0x0002b000], InheritDisposition=1 [ViewShare], AllocationType=0x00800000, Protect=0x80) => 0

NtQueryPerformanceCounter(Counter=0xbc284fed10 [1.10575e+13], Freq=null) => 0

NtProtectVirtualMemory(ProcessHandle=-1, BaseAddress=0xbc284fed20 [0x00007ffb55471000], Size=0xbc284fed18 [0x4000], NewProtect=4, OldProtect=0xbc284fed10 [2]) => 0

NtProtectVirtualMemory(ProcessHandle=-1, BaseAddress=0xbc284fed20 [0x00007ffb55471000], Size=0xbc284fed18 [0x4000], NewProtect=2, OldProtect=0xbc284fed10 [4]) => 0

NtQuerySecurityAttributesToken(TokenHandle=-4, Attributes="WIN://SYSAPPID", NumberOfAttributes=2, Buffer=0xbc284fe7f0, Length=0x330, ReturnLength=0xbc284fe7a8) => 0xc0000225 [1168 '▌ ыхьхэЄ эх эрщфхэ.']

NtQuerySecurityAttributesToken(TokenHandle=-4, Attributes="WIN://SYSAPPID", NumberOfAttributes=1, Buffer=0xbc284fe7f0, Length=0x330, ReturnLength=0xbc284fe7a8) => 0xc0000225 [1168 '▌ ыхьхэЄ эх эрщфхэ.']

NtProtectVirtualMemory(ProcessHandle=-1, BaseAddress=0xbc284fed70 [0x00007ffb41e90000], Size=0xbc284fed78 [0x1000], NewProtect=4, OldProtect=0x25effbf36e8 [2]) => 0

NtOpenSection(SectionHandle=0xbc284fe808, DesiredAccess=0xd, ObjectAttributes=0x3c:"ucrtbased.dll") => 0xc0000034 [2 '═х єфрхЄё эрщЄш єърчрээ√щ Ёрщы.']

NtClose(Handle=0xa8) => 0

NtClose(Handle=0xa4) => 0

NtQueryAttributesFile(ObjectAttributes="\??\C:\Users\T470\source\repos\lab1.1\x64\Debug\ucrtbased.dll", Attributes=0xbc284fed68) => 0xc0000034 [2 '═х єфрхЄё эрщЄш єърчрээ√щ Ёрщы.']

NtQueryAttributesFile(ObjectAttributes="\??\C:\Windows\SYSTEM32\ucrtbased.dll", Attributes=0xbc284fed68 [ARCHIVE]) => 0

NtOpenFile(FileHandle=0xbc284fee70 [0xa4], DesiredAccess=SYNCHRONIZE|0x21, ObjectAttributes="\??\C:\Windows\SYSTEM32\ucrtbased.dll", IoStatusBlock=0xbc284feed8 [0/1], ShareAccess=5, OpenOptions=0x60) => 0

NtCreateSection(SectionHandle=0xbc284fee78 [0xa8], DesiredAccess=0xd, ObjectAttributes=null, SectionSize=null, Protect=0x10, Attributes=0x01000000, FileHandle=0xa4) => 0

Loaded DLL at 00007FFAB47B0000 C:\Windows\SYSTEM32\ucrtbased.dll

NtMapViewOfSection(SectionHandle=0xa8, ProcessHandle=-1, BaseAddress=0x25effbf6690 [0x00007ffab47b0000], ZeroBits=0, CommitSize=0, SectionOffset=null, ViewSize=0x25effbf65f0 [0x00221000], InheritDisposition=1 [ViewShare], AllocationType=0x00800000, Protect=0x80) => 0

NtQueryPerformanceCounter(Counter=0xbc284fed10 [1.10575e+13], Freq=null) => 0

NtProtectVirtualMemory(ProcessHandle=-1, BaseAddress=0xbc284fed20 [0x00007ffb55471000], Size=0xbc284fed18 [0x4000], NewProtect=4, OldProtect=0xbc284fed10 [2]) => 0

NtProtectVirtualMemory(ProcessHandle=-1, BaseAddress=0xbc284fed20 [0x00007ffb55471000], Size=0xbc284fed18 [0x4000], NewProtect=2, OldProtect=0xbc284fed10 [4]) => 0

NtProtectVirtualMemory(ProcessHandle=-1, BaseAddress=0xbc284fed70 [0x00007ffab495b000], Size=0xbc284fed78 [0x1000], NewProtect=4, OldProtect=0x25effbf65d8 [2]) => 0

NtClose(Handle=0xa8) => 0

NtClose(Handle=0xa4) => 0

NtQueryAttributesFile(ObjectAttributes="\??\C:\Users\T470\source\repos\lab1.1\x64\Debug\ucrtbased.dll", Attributes=0xbc284fed68) => 0xc0000034 [2 '═x єфрхЄё эрщЄш єърчрээ√щ Їрщы.']

NtQueryAttributesFile(ObjectAttributes="\??\C:\Windows\SYSTEM32\ucrtbased.dll", Attributes=0xbc284fed68 [ARCHIVE]) => 0

NtProtectVirtualMemory(ProcessHandle=-1, BaseAddress=0xbc284ff538 [0x00007ff6c36d3000], Size=0xbc284ff540 [0x1000], NewProtect=2, OldProtect=0xbc284ff090 [4]) => 0

NtProtectVirtualMemory(ProcessHandle=-1, BaseAddress=0x25effbf65b8 [0x00007ffab495b000], Size=0x25effbf65c0 [0x1000], NewProtect=2, OldProtect=0xbc284ff090 [4]) => 0

NtProtectVirtualMemory(ProcessHandle=-1, BaseAddress=0x25effbf36c8 [0x00007ffb41e90000], Size=0x25effbf36d0 [0x1000], NewProtect=2, OldProtect=0xbc284ff090 [4]) => 0

NtApphelpCacheControl(ServiceClass=6, ServiceData="") => 0

NtApphelpCacheControl(ServiceClass=6, ServiceData="") => 0

NtApphelpCacheControl(ServiceClass=6, ServiceData="") => 0

NtSetInformationVirtualMemory(ProcessHandle=-1, VmInformationClass=4, NumberOfEntries=1, VirtualAddresses=0xbc284ff3f8, VmInformation=0xbc284ff320, VmInformationLength=4) => 0xc00000bb [50 '╥ръющ чряЁюё эх яюффхЁцштрхЄё .']

NtQueryInformationThread(ThreadHandle=-2, ThreadInformationClass=0x11 [ThreadHideFromDebugger], ThreadInformation=0xbc284ff230, Length=1, ReturnLength=null) => 0

Initial breakpoint

NtSetEvent(EventHandle=0x44, PrevState=null) => 0

NtSetInformationVirtualMemory(ProcessHandle=-1, VmInformationClass=4, NumberOfEntries=1, VirtualAddresses=0xbc284ff0b0, VmInformation=0xbc284ff188, VmInformationLength=4) => 0xc00000bb [50 '╥ръющ чряЁюё эх яюффхЁцштрхЄё .']

NtAllocateVirtualMemory(ProcessHandle=-1, lpAddress=0xbc284fe480 [0x0000025effbf8000], ZeroBits=0, pSize=0xbc284fe528 [0x2000], flAllocationType=0x1000, flProtect=4) => 0

NtQueryVolumeInformationFile(FileHandle=0x50, IoStatusBlock=0xbc284fedd0 [0/8], FsInformation=0xbc284fedf0, Length=8, FsInformationClass=4 [FsDeviceInformation]) => 0

NtQueryVolumeInformationFile(FileHandle=0x54, IoStatusBlock=0xbc284fedd0 [0/8], FsInformation=0xbc284fedf0, Length=8, FsInformationClass=4 [FsDeviceInformation]) => 0

NtQueryVolumeInformationFile(FileHandle=0x58, IoStatusBlock=0xbc284fedd0 [0/8], FsInformation=0xbc284fedf0, Length=8, FsInformationClass=4 [FsDeviceInformation]) => 0

NtOpenKey(KeyHandle=0xbc284fd8b0 [0xac], DesiredAccess=KEY_READ, ObjectAttributes="\Registry\Machine\System\CurrentControlSet\Control\Nls\Sorting\Versions") => 0

NtQueryValueKey(KeyHandle=0xac, ValueName="", KeyValueInformationClass=1 [KeyValueFullInformation], KeyValueInformation=0xbc284fdda0, Length=0x214, ResultLength=0xbc284fdd48 [0x2a]) => 0

NtQueryValueKey(KeyHandle=0xac, ValueName="000603xx", KeyValueInformationClass=1 [KeyValueFullInformation], KeyValueInformation=0xbc284fdd80, Length=0x214, ResultLength=0xbc284fdb28 [0x42]) => 0

NtAllocateVirtualMemory(ProcessHandle=-1, lpAddress=0xbc284fe4e0 [0x0000025effbfa000], ZeroBits=0, pSize=0xbc284fe588 [0x2000], flAllocationType=0x1000, flProtect=4) => 0

NtAllocateVirtualMemory(ProcessHandle=-1, lpAddress=0xbc284fe4c0 [0x0000025effbfc000], ZeroBits=0, pSize=0xbc284fe568 [0x2000], flAllocationType=0x1000, flProtect=4) => 0

NtSetInformationVirtualMemory(ProcessHandle=-1, VmInformationClass=4, NumberOfEntries=1, VirtualAddresses=0xbc284ff0f0, VmInformation=0xbc284ff1c8, VmInformationLength=4) => 0xc00000bb [50 '╥ръющ чряЁюё эх яюффхЁцштрхЄё .']

NtSetEvent(EventHandle=0x44, PrevState=null) => 0

NtSetInformationWorkerFactory(WorkerFactoryHandle=0x8c, InformationClass=3 [WorkerFactoryBindingCount], Buffer=0xbc284ff558, BufferLength=4) => 0

NtSetEvent(EventHandle=8, PrevState=null) => 0

NtTestAlert() => 0

NtQueryVirtualMemory(ProcessHandle=-1, BaseAddress=0x7ff6c36c1122, MemoryInformationClass=0 [MemoryBasicInformation], MemoryInformation=0xbc284ff770, Length=0x30, ReturnLength=0xbc284ff720 [0x30]) => 0

NtQueryVirtualMemory(ProcessHandle=-1, BaseAddress=0x7ff6c36c1122, MemoryInformationClass=3 [MemoryRegionInformation], MemoryInformation=0xbc284ff7a0, Length=0x30, ReturnLength=null) => 0

NtQueryVirtualMemory(ProcessHandle=-1, BaseAddress=0x7ff6c36c1122, MemoryInformationClass=2 [MemoryMappedFilenameInformation], MemoryInformation=0xbc284ff818, Length=0x21a, ReturnLength=null) => 0

Incorrect num argsNtDeviceIoControlFile(FileHandle=0x54, Event=0, ApcRoutine=null, ApcContext=null, IoStatusBlock=0xbc284fe150 [0/0x12], IoControlCode=0x00500016, InputBuffer=0xbc284fe160, InputBufferLength=0x40, OutputBuffer=null, OutputBufferLength=0) => 0

NtSetInformationProcess(ProcessHandle=-1, ProcessInformationClass=0x5d [ProcessLoaderDetour], ProcessInformation=0xbc284ff390, Length=4) => 0

NtOpenSection(SectionHandle=0xbc284ff368, DesiredAccess=0xd, ObjectAttributes=0x3c:"kernel.appcore.dll") => 0xc0000034 [2 '═x єфрхЄё эрщЄш єърчрээ√щ Їрщы.']

NtQueryAttributesFile(ObjectAttributes="\??\C:\Windows\SYSTEM32\kernel.appcore.dll", Attributes=0xbc284ff128 [ARCHIVE]) => 0

NtOpenFile(FileHandle=0xbc284ff120 [0xa4], DesiredAccess=SYNCHRONIZE|0x21, ObjectAttributes="\??\C:\Windows\SYSTEM32\kernel.appcore.dll", IoStatusBlock=0xbc284ff188 [0/1], ShareAccess=5, OpenOptions=0x60) => 0

NtCreateSection(SectionHandle=0xbc284ff128 [0xa8], DesiredAccess=0xd, ObjectAttributes=null, SectionSize=null, Protect=0x10, Attributes=0x01000000, FileHandle=0xa4) => 0

Loaded DLL at 00007FFB506F0000 C:\Windows\SYSTEM32\kernel.appcore.dll

NtMapViewOfSection(SectionHandle=0xa8, ProcessHandle=-1, BaseAddress=0x25effbfab10 [0x00007ffb506f0000], ZeroBits=0, CommitSize=0, SectionOffset=null, ViewSize=0x25effbf6c40 [0x00012000], InheritDisposition=1 [ViewShare], AllocationType=0x00800000, Protect=0x80) => 0

NtQueryPerformanceCounter(Counter=0xbc284fefc0 [1.10575e+13], Freq=null) => 0

NtProtectVirtualMemory(ProcessHandle=-1, BaseAddress=0xbc284fefd8 [0x00007ffb506ff000], Size=0xbc284fefd0 [0x1000], NewProtect=2, OldProtect=0xbc284ff040 [4]) => 0

NtProtectVirtualMemory(ProcessHandle=-1, BaseAddress=0xbc284fefd0 [0x00007ffb55471000], Size=0xbc284fefc8 [0x4000], NewProtect=4, OldProtect=0xbc284fefc0 [2]) => 0

NtProtectVirtualMemory(ProcessHandle=-1, BaseAddress=0xbc284fefd0 [0x00007ffb55471000], Size=0xbc284fefc8 [0x4000], NewProtect=2, OldProtect=0xbc284fefc0 [4]) => 0

NtProtectVirtualMemory(ProcessHandle=-1, BaseAddress=0xbc284ff020 [0x00007ffb506f5000], Size=0xbc284ff028 [0x1000], NewProtect=4, OldProtect=0x25effbf6c28 [2]) => 0

NtOpenSection(SectionHandle=0xbc284feab8 [0xb0], DesiredAccess=0xd, ObjectAttributes=0x3c:"msvcrt.dll") => 0

Loaded DLL at 00007FFB53CC0000 C:\Windows\System32\msvcrt.dll

NtMapViewOfSection(SectionHandle=0xb0, ProcessHandle=-1, BaseAddress=0x25effbfc9a0 [0x00007ffb53cc0000], ZeroBits=0, CommitSize=0, SectionOffset=null, ViewSize=0x25effbfc900 [0x0009e000], InheritDisposition=1 [ViewShare], AllocationType=0x00800000, Protect=0x80) => 0

NtQueryPerformanceCounter(Counter=0xbc284fe930 [1.10575e+13], Freq=null) => 0

NtProtectVirtualMemory(ProcessHandle=-1, BaseAddress=0xbc284fe940 [0x00007ffb55471000], Size=0xbc284fe938 [0x4000], NewProtect=4, OldProtect=0xbc284fe930 [2]) => 0

NtProtectVirtualMemory(ProcessHandle=-1, BaseAddress=0xbc284fe940 [0x00007ffb55471000], Size=0xbc284fe938 [0x4000], NewProtect=2, OldProtect=0xbc284fe930 [4]) => 0

NtProtectVirtualMemory(ProcessHandle=-1, BaseAddress=0xbc284fe990 [0x00007ffb53d36000], Size=0xbc284fe998 [0x2000], NewProtect=4, OldProtect=0x25effbfc8e8 [2]) => 0

NtClose(Handle=0xb0) => 0

NtOpenSection(SectionHandle=0xbc284feab8 [0xb4], DesiredAccess=0xd, ObjectAttributes=0x3c:"RPCRT4.dll") => 0

Loaded DLL at 00007FFB546E0000 C:\Windows\System32\RPCRT4.dll

NtMapViewOfSection(SectionHandle=0xb4, ProcessHandle=-1, BaseAddress=0x25effbfccf0 [0x00007ffb546e0000], ZeroBits=0, CommitSize=0, SectionOffset=null, ViewSize=0x25effbfcc50 [0x00123000], InheritDisposition=1 [ViewShare], AllocationType=0x00800000, Protect=0x80) => 0

NtQueryPerformanceCounter(Counter=0xbc284fe930 [1.10575e+13], Freq=null) => 0

NtProtectVirtualMemory(ProcessHandle=-1, BaseAddress=0xbc284fe948 [0x00007ffb547fb000], Size=0xbc284fe940 [0x1000], NewProtect=2, OldProtect=0xbc284fe9b0 [4]) => 0

NtProtectVirtualMemory(ProcessHandle=-1, BaseAddress=0xbc284fe940 [0x00007ffb55471000], Size=0xbc284fe938 [0x4000], NewProtect=4, OldProtect=0xbc284fe930 [2]) => 0

NtProtectVirtualMemory(ProcessHandle=-1, BaseAddress=0xbc284fe940 [0x00007ffb55471000], Size=0xbc284fe938 [0x4000], NewProtect=2, OldProtect=0xbc284fe930 [4]) => 0

NtProtectVirtualMemory(ProcessHandle=-1, BaseAddress=0xbc284fe990 [0x00007ffb547cc000], Size=0xbc284fe998 [0x2000], NewProtect=4, OldProtect=0x25effbfcc38 [2]) => 0

NtClose(Handle=0xb4) => 0

NtProtectVirtualMemory(ProcessHandle=-1, BaseAddress=0x25effbf6c08 [0x00007ffb506f5000], Size=0x25effbf6c10 [0x1000], NewProtect=2, OldProtect=0xbc284fef10 [4]) => 0

NtClose(Handle=0xa8) => 0

NtClose(Handle=0xa4) => 0

NtProtectVirtualMemory(ProcessHandle=-1, BaseAddress=0x25effbfc8c8 [0x00007ffb53d36000], Size=0x25effbfc8d0 [0x2000], NewProtect=2, OldProtect=0xbc284ff230 [4]) => 0

NtSetInformationProcess(ProcessHandle=-1, ProcessInformationClass=0x23 [ProcessTlsInformation], ProcessInformation=0xbc284ff190, Length=0x28) => 0

NtProtectVirtualMemory(ProcessHandle=-1, BaseAddress=0x25effbfcc18 [0x00007ffb547cc000], Size=0x25effbfcc20 [0x2000], NewProtect=2, OldProtect=0xbc284ff230 [4]) => 0

NtApphelpCacheControl(ServiceClass=6, ServiceData="") => 0

NtApphelpCacheControl(ServiceClass=6, ServiceData="") => 0

NtApphelpCacheControl(ServiceClass=6, ServiceData="") => 0

NtSetInformationVirtualMemory(ProcessHandle=-1, VmInformationClass=4, NumberOfEntries=1, VirtualAddresses=0xbc284ff250, VmInformation=0xbc284ff328, VmInformationLength=4) => 0xc00000bb [50 '╥ръющ чряЁююё эх яюффхЁцштрхЄё .']

NtAllocateVirtualMemory(ProcessHandle=-1, lpAddress=0xbc284fea80 [0x0000025effdd0000], ZeroBits=0, pSize=0xbc284fea88 [0x001b0000], flAllocationType=0x2000, flProtect=4) => 0

NtFreeVirtualMemory(ProcessHandle=-1, lpAddress=0xbc284fea80 [0x0000025effdd0000], pSize=0xbc284fea78 [0x001a0000], flFreeType=0x8000) => 0

NtAllocateVirtualMemory(ProcessHandle=-1, lpAddress=0xbc284fea68 [0x0000025efff70000], ZeroBits=0, pSize=0xbc284fea60 [0x2000], flAllocationType=0x1000, flProtect=4) => 0

NtQueryVolumeInformationFile(FileHandle=0x50, IoStatusBlock=0xbc284ff050 [0/8], FsInformation=0xbc284ff070, Length=8, FsInformationClass=4 [FsDeviceInformation]) => 0

NtQueryVolumeInformationFile(FileHandle=0x54, IoStatusBlock=0xbc284ff050 [0/8], FsInformation=0xbc284ff070, Length=8, FsInformationClass=4 [FsDeviceInformation]) => 0

NtQueryVolumeInformationFile(FileHandle=0x58, IoStatusBlock=0xbc284ff050 [0/8], FsInformation=0xbc284ff070, Length=8, FsInformationClass=4 [FsDeviceInformation]) => 0

NtAllocateVirtualMemory(ProcessHandle=-1, lpAddress=0xbc284fe8f0 [0x0000025effbfe000], ZeroBits=0, pSize=0xbc284fe998 [0x2000], flAllocationType=0x1000, flProtect=4) => 0

NtAllocateVirtualMemory(ProcessHandle=-1, lpAddress=0xbc284fe8c0 [0x0000025efff72000], ZeroBits=0, pSize=0xbc284fe968 [0x1000], flAllocationType=0x1000, flProtect=4) => 0

NtAllocateVirtualMemory(ProcessHandle=-1, lpAddress=0xbc284fe8a0 [0x0000025efff73000], ZeroBits=0, pSize=0xbc284fe948 [0x2000], flAllocationType=0x1000, flProtect=4) => 0

NtSetInformationVirtualMemory(ProcessHandle=-1, VmInformationClass=4, NumberOfEntries=1, VirtualAddresses=0xbc284ff250, VmInformation=0xbc284ff328, VmInformationLength=4) => 0xc00000bb [50 '╥ръющ чряЁюё эх яюффхЁцштрхЄё .']

NtSetInformationVirtualMemory(ProcessHandle=-1, VmInformationClass=4, NumberOfEntries=1, VirtualAddresses=0xbc284ff290, VmInformation=0xbc284ff368, VmInformationLength=4) => 0xc00000bb [50 '╥ръющ чряЁюё эх яюффхЁцштрхЄё .']

NtSetEvent(EventHandle=0x44, PrevState=null) => 0

NtQuerySecurityAttributesToken(TokenHandle=-6, Attributes="WIN://SYSAPPID", NumberOfAttributes=2, Buffer=0xbc284ff4c0, Length=0x330, ReturnLength=0xbc284ff478) => 0xc0000225 [1168 '▌ ыхьхэЄ эх эрщфхэ.']

NtQuerySecurityAttributesToken(TokenHandle=-6, Attributes="WIN://SYSAPPID", NumberOfAttributes=1, Buffer=0xbc284ff4c0, Length=0x330, ReturnLength=0xbc284ff478) => 0xc0000225 [1168 '▌ ыхьхэЄ эх эрщфхэ.']

NtTerminateProcess(ProcessHandle=0, ExitStatus=1) => 0

NtClose(Handle=0x88) => 0

NtClose(Handle=0x5c) => 0

NtClose(Handle=0x84) => 0

NtClose(Handle=0x80) => 0

NtQueryWnfStateData(StateName=0xbc284ff570 [0xa3bc1c75], TypeId=null, ExplicitScope=null, ChangeStamp=0xbc284fe4b4 [0x652e], Buffer=0xbc284fe510, BufferSize=0xbc284fe4b0 [0x55a]) => 0

NtQueryWnfStateData(StateName=0xbc284ff3f8 [0xa3bc7c75], TypeId=null, ExplicitScope=null, ChangeStamp=0xbc284ff488 [0], Buffer=0xbc284ff4e0, BufferSize=0xbc284ff3e0 [0]) => 0

Process 44704 exit code: 1

Вывод

В ходе выполнения лабораторной работы я переделал первое задание с использованием file mapping. Проблем при выполнении работы не возникло.