Cropping an image

The program crops an image.

The image has a size WxH (W-width, H-height).

Every pixel in it is represented as a 32-bit number(bites describe the ARGB channels).

Let’s except that all pixels has a value 0xFF for the alpha chanel.

For the solution of this task you will receive two functions. The first one loads the image from .bmp file and the second one writes the image in a .bmp file.

int LoadBitmap(const char\* Path,

unsigned int ImageData[],

size\_t MaxSize,

unsigned int& Width,

unsigned int& Height);

int SaveBitmap(const char\* Path,

unsigned int ImageData[],

unsigned int Width,

unsigned int Height);

Both functions return a number as a result of their work. Here are the possible chances for a return.

|  |  |  |
| --- | --- | --- |
| Code | Macros | Meaning |
| 0 | ALL\_OK | The function has performed correctly. |
| 1 | ERR\_CANNOT\_OPEN\_FILE | Can’t open the file provided by the user. It may be a wrong path. |
|  |  |  |
| 2 | ERR\_WRONG\_FILE\_TYPE | The parameter of LoadBitmap file is not valid 24-bite bitmap ​​file. |
|  |  |  |
| 3 | ERR\_BUFFER\_TOO\_SMALL | The parameter of ​​LoadBitmap ​​​is not big enough to save the image. |
|  |  |  |
|  |  |  |
| 4 | ERR\_FILE\_READ\_ERROR | Error while reading the file. |
| 5 | ERR\_CANNOT\_ALLOCATE\_MEMORY | SaveBitmap​​ can’t allocate enough memory for work ​​да​​задели​​нужната |
|  |  |  |
| 6 | ERR\_ZERO\_SIZE | The parameter of SaveBitmap​​е​​ had been 0 |
|  |  |  |
|  |  |  |

* ​​**​​​​​​​​​**

**Parameters of the functions are:**

* -Path- the path to the file which the function must work with
* -ImageData – an array, which we must include in the function.
* -MaxSize – the size of the array
* -Width-width of the image
* -Height-height of the image

You must write a program that will use the functions to load the image, to crop it and write the result to a new file.

You must write functions that will crop the image.

**RESULT:**

Before: After:

