Lazy Foo' Productions

Setting up SDL Extension Libraries in MinGW Developer Studio

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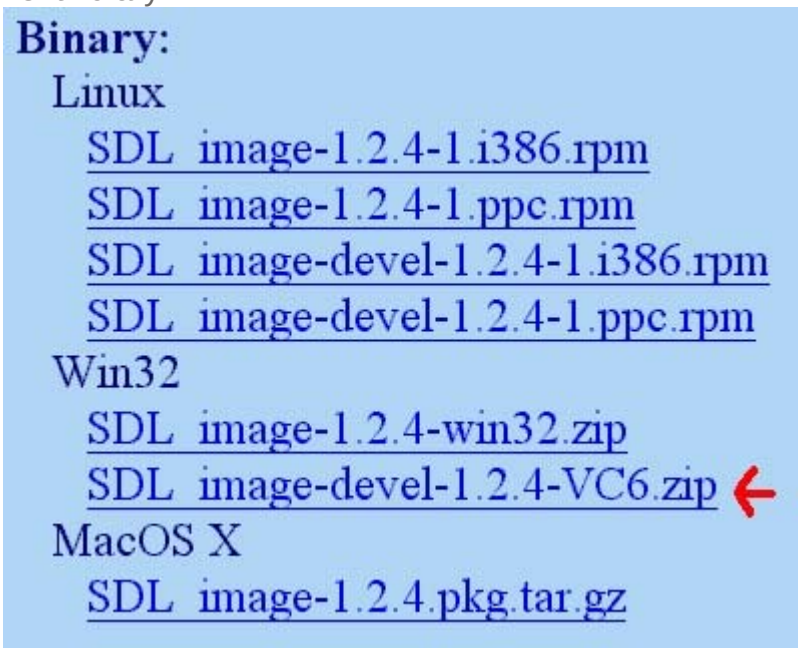
In this tutorial you're going to learn to set up SDL_image. If you know how to set up this extension, you can set any of them up.

SDL_image is located on this page.

1)Scroll down to the Binary section and download the Windows development library



Every extension libary has 3 essential parts:

1. The header file.
2. The lib file.
3. The *.dll file(s)

They're all set up pretty much the same way no matter which extension you're setting up.

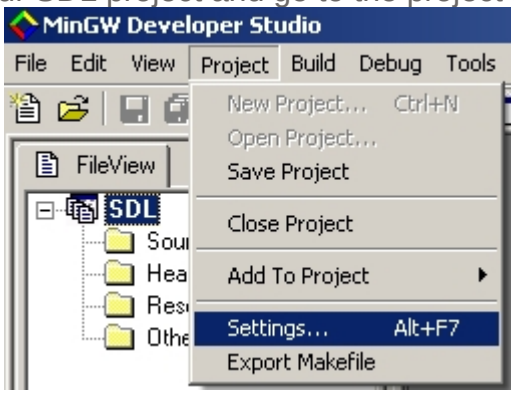
Open up the zip archive and there should be a folder inside.
Open the folder and it'll contain 2 subfolders.

2)First, open the include subfolder in the archive and extract the header file inside to the SDL subfolder inside of the MinGW include folder. It should be at C:\MinGWStudio\MinGW\include\SDL.

3)Next extract the lib file that's inside of lib subfolder of the archive to the MinGW lib folder. The MinGW lib folder should be at C:\MinGWStudio\MinGW\lib.

4)Now extract the *.dll file(s) to C:\WINDOWS\SYSTEM32. This is so whenever you make an SDL extension app, the program will be able to find the *.dll file(s) even if they're not in the same directory as the *.exe.

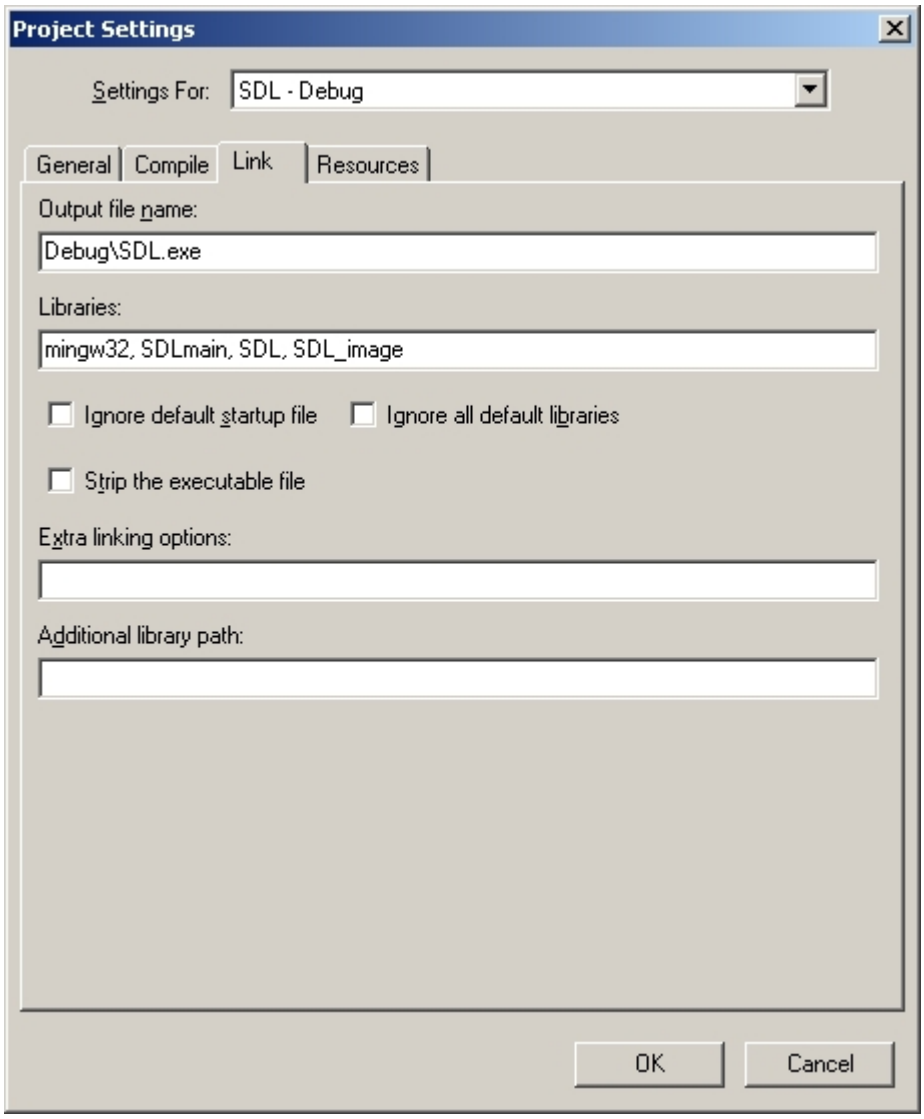
5)Now open up your SDL project and go to the project settings.



6)Under the Link tab, paste:

```
SDL_image
```

in the libraries field.



If you were linking SDL_ttf you'd put

```
SDL_ttf
```

if you were linking SDL_mixer you'd put

```
SDL_mixer
```

etc, etc.

7)To use SDL_image make sure to include the header file.

```
#include "SDL/SDL_image.h"
```

If you were setting up SDL_ttf you'd put

```
#include "SDL/SDL_ttf.h"
```

If you were setting up SDL_mixer you'd put

```
#include "SDL/SDL_mixer.h"
```

etc, etc.

Now the extension library is all set up.

Now you can use SDL_image functions.

The main one you want to know about is IMG_Load().

```
SDL_Surface *load_image( std::string filename )
{
    //The image that's loaded
    SDL_Surface* loadedImage = NULL;

    //The optimized image that will be used
    SDL_Surface* optimizedImage = NULL;

    //Load the image using SDL_image
    loadedImage = IMG_Load( filename.c_str() );

    //If the image loaded
    if( loadedImage != NULL )
    {
        //Create an optimized image
        optimizedImage = SDL_DisplayFormat( loadedImage );

        //Free the old image
        SDL_FreeSurface( loadedImage );
    }

    //Return the optimized image
    return optimizedImage;
}
```

Here is a revised version of the image loading function from the previous tutorial. As you can see IMG_Load() functions exactly the same as SDL_LoadBMP(), but there's one big exception: IMG_Load() can load BMP, PNM, XPM, LBM, PCX, GIF, JPEG, TGA and PNG files.

From this tutorial on, PNG image files will be the primary image format used. PNGs have excellent lossless compression.

Download the media and source code for this tutorial here.

I highly recommend that you download the documentation for SDL_image and keep it handy.

It can be found here.