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Setting up SDL Extension Libraries for XCode

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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 Mac OS X package:

2)Copy the SDL_image.framework folder from the runtime library package to /Library/Frameworks.
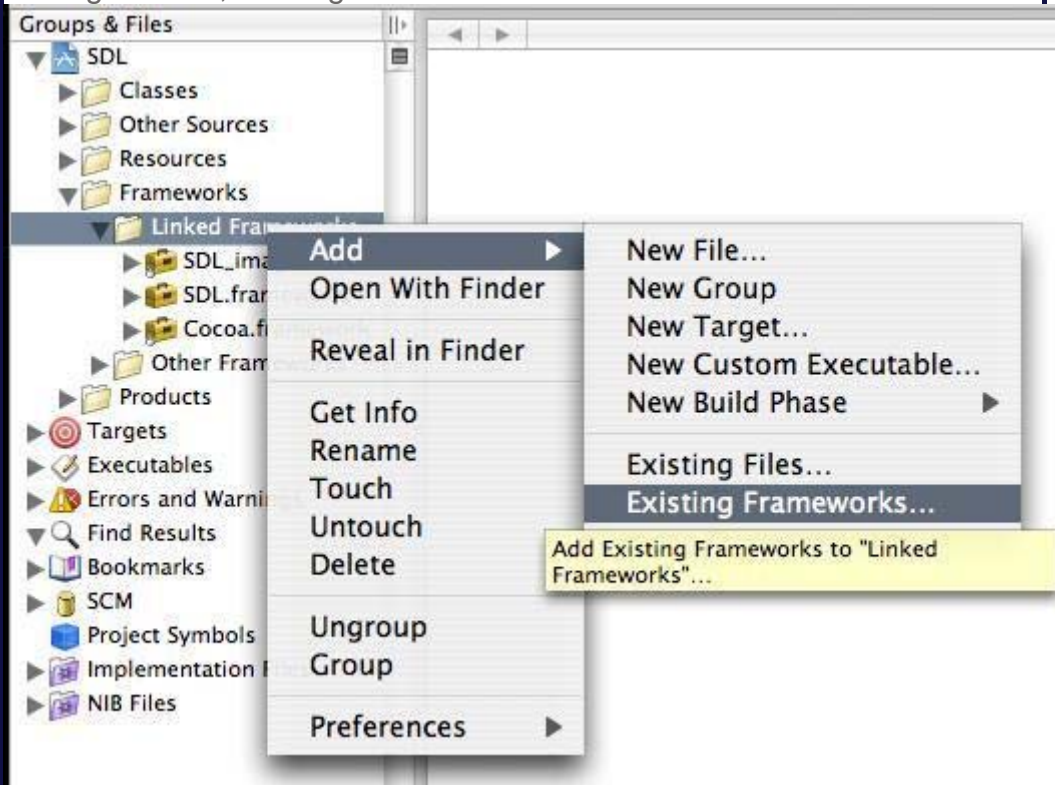
If you were setting up SDL_ttf you'd copy

SDL_ttf.framework
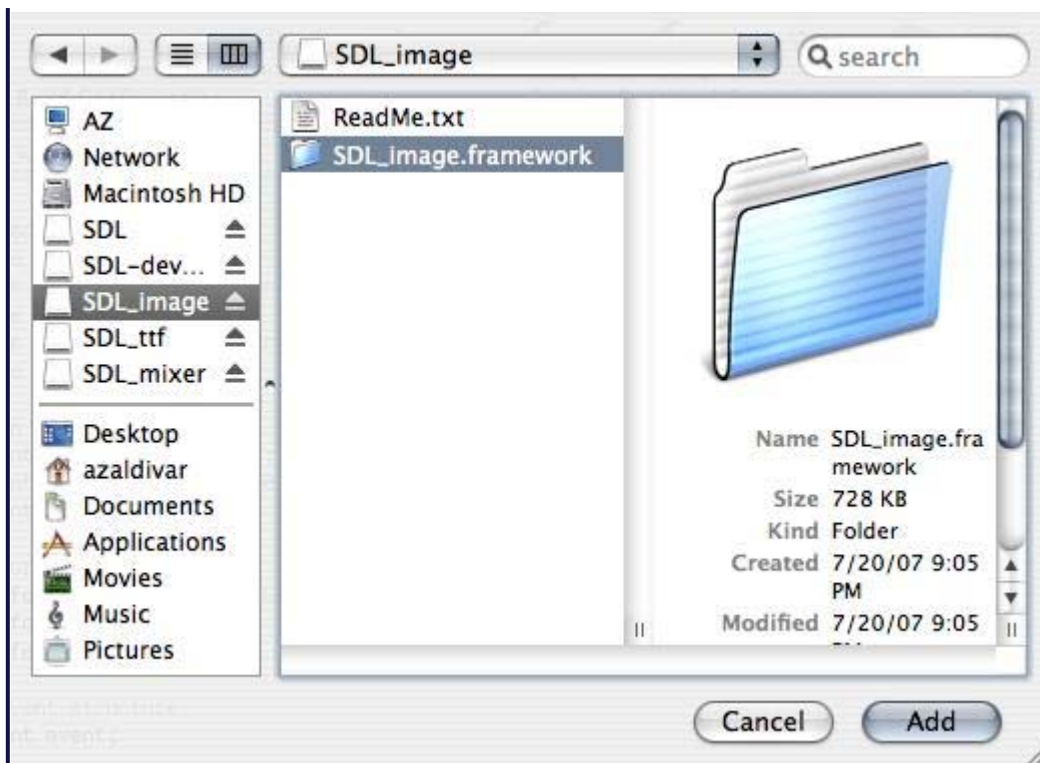
if you were setting up SDL_mixer you'd put

SDL_mixer.framework

etc, etc.

3)Open up your SDL project. In the groups and files menu open the frameworks folder and right click (or shift click) on linked frameworks. Then go to add, existing frameworks.

4)Select SDL_image, then click on SDL_image.framework. Then click add.

If you were linking SDL_ttf you'd append

SDL_ttf.framework

if you were linking SDL_mixer you'd add on

SDL_mixer.framework

etc, etc.

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

#include "SDL_image/SDL_image.h"

If you were setting up SDL_ttf you'd put

#include "SDL_ttf/SDL_ttf.h"

If you were setting up SDL_mixer you'd put

#include "SDL_mixer/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.

In the tutorials ahead, the example source codes include the SDL extensions differently.

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

This is how both Linux and Windows do it. Since this is how most platforms do it, it's how my example programs do it. To get the example programs to work with Mac OS X, simply remember to change how the SDL extension headers are included.

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.

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