

# SFML and Visual Studio

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## Introduction

The following instructions describe how to create SFML libraries for use with Visual Studio 2010 in Debug mode using static linking.

The steps may be trivially modified to create SFML libraries to be dynamically linked.

Follow the online tutorials and make some amazing 2D games.

# Download and Extract SFML

1. Download the latest stable version of SFML
2. Extract in Documents
3. You should now have a folder entitled 'SFML-X.X' in Documents

## Set Up The Project

1. Create a new C++ project of type 'Empty Project'
2. Name it 'SFML Test'
3. Solution Explorer > Source Files: add a 'main.cpp' file

## Specify Location of SFML Include Folder

Project > (name of project) Properties > C/C++ > General > Additional Include Directories >

(full path to Documents/SFML/include)

Configuration: All Configurations

## Specify the Static Linking Preprocessor Directive

Project > (name of project) Properties > C/C++ > Preprocessor > Preprocessor Definitions >  
SFML\_STATIC

## Specify The Location of the SFML Library Folder

Project > (name of project) Properties > Linker > General > Additional Library Directories >  
(full path to Documents/SFML/lib)

Configuration: All Configurations

# Statically Link Parts of the SFML Library

Project > (name of project) Properties > Linker > Input > Additional Dependencies

sfml-system-s-d.lib  
sfml-window-s-d.lib  
sfml-graphics-s-d.lib

If you use other parts of the SFML Library, link those as well

e.g. audio will require sfml-audio-s-d.lib

## Link the Libraries that SFML Depends On

Project > (name of project) Properties > Linker > Input > Additional Dependencies

winmm.lib  
opengl32.lib  
gdi32.lib  
freetype.lib

## Table of SFML Dependencies

Module	Dependencies
sfml-system-s.lib	<ul style="list-style-type: none"><li>◦ winmm.lib</li></ul>
sfml-network-s.lib	<ul style="list-style-type: none"><li>◦ sfml-system-s.lib</li><li>◦ ws2_32.lib</li></ul>

sfml-audio-s.lib	<ul style="list-style-type: none"><li>○ sfml-system-s.lib</li><li>○ sndfile.lib</li><li>○ openal32.lib</li></ul>
sfml-window-s.lib	<ul style="list-style-type: none"><li>○ sfml-system-s.lib</li><li>○ opengl32.lib</li><li>○ gdi32.lib</li><li>○ winmm.lib</li></ul>
sfml-graphics-s.lib	<ul style="list-style-type: none"><li>○ sfml-window-s.lib</li><li>○ sfml-system-s.lib</li><li>○ glew.lib</li><li>○ freetype.lib</li><li>○ jpeg.lib</li><li>○ opengl32.lib</li></ul>

# Code

Copy the following code to the main.cpp file:

```
#include <SFML/Graphics.hpp>
int main()
{
    sf::RenderWindow window(sf::VideoMode(640, 480), "Hello SFML World!");
    sf::CircleShape circle(100.0f);
    while(window.isOpen())
    {
        sf::Event event;
        while(window.pollEvent(event))
        {
            if(event.type == sf::Event::Closed)
                window.close();
        }
        window.clear();
        window.draw(circle);
        window.display();
    }
    return EXIT_SUCCESS;
}
```

When pasting into Visual Studio, it is necessary to delete the double quotes around "Hello SFML World!" and type them in again.

## Make A Project Template

Save this project and solution.

For every new SFML project, make a copy of the 'SFML Project Template' folder and rename it. Use this for the new project.

Once this copy has been opened in Visual Studio, rename the project and other files as appropriate.

This alleviates the need to perform the above steps for every new project.