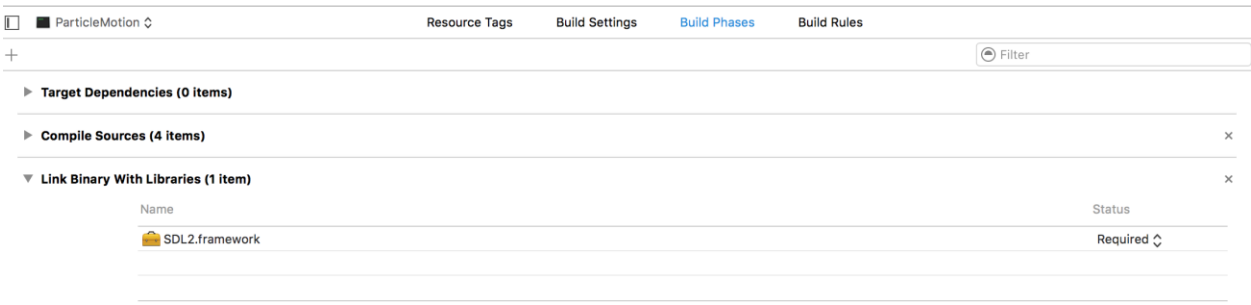
Particle Motion Simulation using C++

This program is written using:

Hardware	Apple MacBook Pro
Operating System	OS X El Capitan Version 10.11.3 (15D21)
IDE	Xcode Version 7.2.1 (7C1002)
Multimedia Library	Simple DirectMedia Layer SDL2 - 2.0.4 https://www.libsdl.org/download-2.0.php
Programming Language	C++

SDL2 Setup for Xcode

1. Get the SDL2 - 2.0.4 dmg file for Mac from https://www.libsdl.org/download-2.0.php
2. Install the SDL2 on Mac
    a. Copy the SDL2.framework to /Library/Frameworks or alternatively install it in <Your home directory>/Library/Frameworks if your access privileges are not high enough.
3. To add the framework to the project
    a. In the project navigator, select your project.
    b. Select your target.
    c. Select the "Build Phases" tab.
    d. Open "Link Binaries With Libraries" expander.
    e. Click the + button.
    f. Select your framework.
    g. (optional) Drag and drop the added framework to the "Frameworks" group.



Using SDL2 in C++ program

Install SDL2 on Mac and import the framework to your project. The framework can be used in the project by including the SDL.h header file located under the folder SDL inside the SDL framework.

Syntax:

#include <SDL2/SDL.h>

Project Source

Download the project source code from:

https://github.com/saikiranmaitadikonda/Particle_Movement.git

Download the ParticleMotion folder and run the program in Xcode.

Files

The project contains the following files

Framework	**1.** SDL2.framework
Files	1. Main.cpp 2. Window.hpp 3. Window.cpp 4. Element.hpp 5. Element.cpp 6. Movement.hpp 7. Movement.cpp

Description

This program written in C++ simulates a Particle System where the particles move in an angular path within a fixed screen. The particles changes colors as they travel creating a blur effect. This blur effect is created based on BoxBlur algorithm.