Egine Engine Software Requirements

# Functionality

The Egine Physics Engine is an Open-Source C++ library that aims to accurately simulate classical physics interactions. For like, cool games and stuff.

## Implemented Features

* Object-creation
* Basic (AABB-based) collision detection
* Acceptance testing framework
* Gravity
* Sample application

## Planned Features

* Logging functionality
* Mass/momentum calculations
* Doxygen-based (maybe) documentation
* Advanced collision detection
  + Off-center collisions
  + Non-axis-aligned object orientation
  + Object elasticity
* Air Resistance
* UI for object creation/manipulation/destruction
* User-defined physics constants
* Collision avoidance
* Multi-object structure creation
* Multiple simulation modes
  + High-precision, High-performance, etc.
* Far future
  + 3D
  + Games using API

# External Interfaces

An API will be developed. But that’s like, a long time from now.

# Attributes

## Current

* Open Source (BSD License)
* C++ application
* Single-threaded
* Windows-only

## Future

* Multi-threaded
* Multi-platform