This is the release notes documentation for the Lightning game engine. This document’s goal is to assist you, the developer, in understanding all of the Lightning game engine’s latest functionality.

**Version 1.1.0 Release Candidate 0 (Pre-release)**October, 2022

**General**

* Updated to SDL2\_mixer 2.6.2 – MOD files are no longer supported due to bugs on SDL’s end, sorry, but there are many new functions.
* Updated to SDL2\_image 2.6.2 – JPEG-XL and AVIF image formats are now supported.
* Examples now use the installed engine instead of the version in the “shared” folderl.

**Rendering**

* Fixed **Renderer::CurFPS** being an internal property.
* Added **Texture::Access** so you can acquire a Texture’s access at runtime.
* The API has been standardised on American English. Please update your games accordingly.
* Implemented font caching. Text is now cached by the engine and automatically discarded when no longer used, resulting in a speedup of 20x in some cases. (Minesweeper went from 43fps to 550-800fps, and my Test Program went from 80-100 to 450-600fps!).
* **A new animation engine has been implemented!:**
* The new animation engine allows you to animate any arbitrary number of properties of any Renderable.
* Added the new Lightning Animation Editor (**AnimTool.exe**) that allows you to edit and generate animations.
* Unified the **MousePressedEvent**, **MouseReleaseEvent** and **MouseEvent** classes into one **MouseEvent** class.

**Version 1.0.4  
September 17, 2022**

* Change all remaining “LightningGL” branding to “Lightning Game Engine”
* Modify GlobalSettings values when changing position or size of window
* Fix minor typo in release notes documentation (“zThis” => “This”)

**Version 1.0.3  
September 4, 2022**

* Fix lighting screen-space map moving with the camera (catastrophic failure)
* Implemented **ParticleEffect::RemoveEffect**,which will unload and remove a particle effect.
* Fixed the Light Manager’s screen space map being unlocked twice each frame.

**Version 1.0.2  
September 3, 2022**

* Fix all UI elements being rendered twice. This will increase overall performance by 10-100% depending on how much UI is being used in your game.
* Allow particle effects to actually be unloaded.
* Implement the **forceStop** parameter to **ParticleEffect::Stop**. It can be used to immediately stop a particle effect.
* Implement **GlobalSettings::Save** as a stopgap.
* Minor API fixes

**Version 1.0.1  
August 31, 2022**

* Add the ability to remove UI gadgets.
* Fix an issue with Texture loading in the Visual Studio project template.
* Fix an internal method of FontManager accidentally being made public.

**Version 1.0.0  
August 30, 2022**

Initial release of the Lightning game engine.