Project weapons

Project design document

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# Overview

This project aims to showcase a comprehensive weapons handling system in Unreal Engine.

# Blueprint inheritance tree

* BP\_WeaponBase
  + BP\_ WeaponBase\_Projectile
  + BP\_ WeaponBase\_Hitscan
* BP\_ProjectileBase
* BPC\_WeaponFireSystem

# Weapon base system

## Abilities

* Fire control
* Reloading
* Overheating

## Weapon data

* Weapon name
* Fire rate
* Shots per trigger pull (Can be set above 1 to create burst weapons)
* Burst delay (Time between bursts if shots per trigger pull is above 1)
* Reload time
* Automatic?
* Shots to overheat (0 will never over heat)
* Cool down time (Time needed for weapon to cool down if overheating is enabled)
* Infinite ammo? (Will ignore ammo count)
* No reload? (Will skip reload time)

## Projectile weapons

### Abilities

* Fire projectile actor
* Damage is dealt via projectile actor

### Weapon data

## Laser weapons

### Abilities

* Fire hit-scan
* Deal damage themselves

### Weapon data

* Damage

# Weapon types

* Projectile

These weapons fire physical projectiles that travel through the world.

* Hit-scan

These weapons fire hit scans into the world that instantly hit targets.

# Fire types

* Manual

These weapons require the user the click again to reload after each shot.

* Semi-automatic

These weapons will fire one shot for each pull of the trigger.

* Fully automatic

These weapons will continue to fire while the trigger is held down.