Mega Powers



What is the system capable of:

Telekinesis:

- Single Al push
- Single object push
- Multiple Als push
- Multiple Objects push
- Pull and push a single Al
- Pull and push a single object
- Pull and push multiple Als
- Pull and push multiple objects
- Objects after the ability can collide with Als and kill them

Physics:

- Ground slam against Als
- Ground slam against Objects
- Sparta Kick against Al
- Sparta Kick against an object
- Objects after the ability can collide with Als and kill them
- Speedster attack
- Auto ground slam when falling from a height

Range:

- Laser from eyes
- Controlled wrecking ball
- Fireball

Radial:

- Shrapnel grenade
- Magnet grenade
- Spear rain
- Arrow rain
- Small meteor rain
- Big meteor rain
- Multiple fireballs

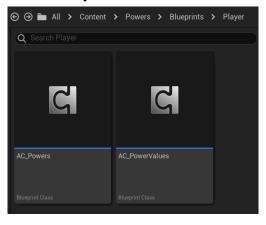
Gravity:

- Black hole void
- Black hole with suction
- Controlled black hole

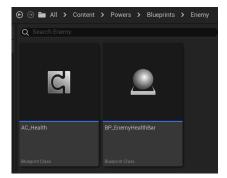
Additional:

- 100% Blueprint
- Mana system with the option to enable/disable at any time
- Auto mana regeneration
- Pickup that restores part of the mana
- Pickup that increases max mana
- Enemy health system with the option to enable/disable at any time
- If using a health system, a damage system is enable
- Directional hit effect when damage system enabled
- Camera effects
- Ragdoll + optimization
- Notifications
- Multiple options to setup
- Super easy integration plug and play (approximate 5 min)
- Support UE4 & UE5 default skeletons
- Actors spawner in random location-based sphere
- Actors spawner with 2D loop
- Al spawner with movement in a random location-based sphere
- Sandbox for testing

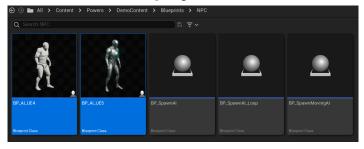
The components that need to be added to the player can be found in this destination:



The components that need to be added to the NPCs/Als can be found in this destination:



Those are demo player and NPCs/Als blueprints and their destination:

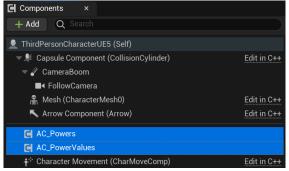




Activation on player

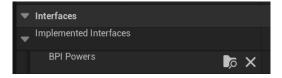
1) Inside the player we need to add these components:

Both components are necessary, for the correct work of the system



2) Inside the player, we also need to add the "BPI_Powers" interface":

The interface provides camera effects in some of the abilities



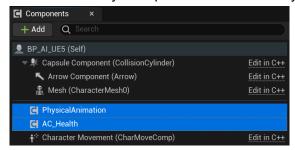
3) After finishing the first 2 steps we can copy "Mega Powers" from the provided demo character and paste it into our main character



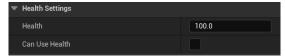
Activation on NPC/Al

1) Inside the NPC we need to add these components:

The "AC_Health" component is disabled by default and not necessary for and can be used just in case we want to use the health system provided and the "PhysicalAnimation" component is used for ragdoll-related logic



In the AC_Health component, we can find basic changes that we can make like health and whether the system will be available in-game or not (by default as mentioned the system is disabled and can be enabled just by clicking on the empty box of "Can Use Health")



2) Inside the NPC, we also need to add the "BPI_Powers" interface":

The interface provides ragdoll logic and some movement logic related to the telekinesis systems



3) After finishing the first 2 steps we can copy "Mega Powers" from the provided demo Al and paste it into our Al



AC_Powers

Draw Debug - Draw debug traces related to the powers

StartFOV - Camera effect with base/default field of view value

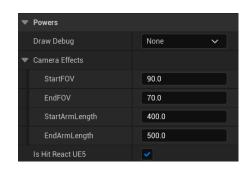
EndFOV - Camera effect with target field of view value

StartArmLength - Camera effect with base/default arm length value

EndArmLength - Camera effect with target arm length value

Is Hit React UE5 - Hit react animations are from UE5 or UE4

The camera effects are most used in Telekinesis powers and can be Tested in the demo level named TelekinesisUE5 or TelekinesisUE4



Sparta Kick Skeletal:

DetectLength - The length needed to find a target

Montage - Montage to play related to the power/ability

Sound - SFX related to the power/ability

PercentOfAnimation - The moment in the animation when to do NPC ragdoll

InBone - The bone from which the ragdoll start

ImpulseRadius - The effect takes place in this radius

ImpulseMin - The minimum hit power

ImpulseMax - The maximum hit power

IncludeSelfSimulation - Do simulation for the victim

Mana - Mana needed to activate the power/ability

Damage - Damage from power if an enemy uses a health component

Sparta Kick Object:

DetectLength - The length needed to find a target

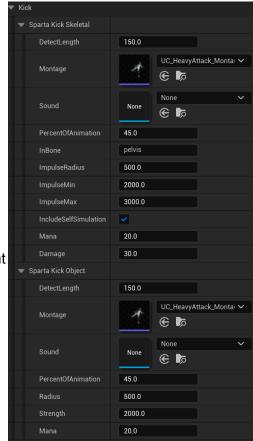
Montage - Montage to play related to the power/ability

Sound - SFX related to the power/ability

PercentOfAnimation - The moment in the animation when to do impulse damage that affects the object

Radius - The effect takes place in this radius using radial impulse

Strength - Radial impulse strength



Self Explosion Skeletal:

DetectLength - The length needed to find a target

ExplosionRadius - Detection radius value using traces

DelayBeforeRagdoll - Delay before ragdoll start

InBone - The bone from which the ragdoll start

ImpulseRadius - The effect takes place in this radius

ImpulseMin - The minimum hit power

ImpulseMax - The maximum hit power

IncludeSelfSimulation - Do simulation for the victim

ParticleToSpawn - Play particle effect

NiagaraToSpawn - Play Niagara effect

Montage - Montage to play related to the power/ability

Sound - SFX related to the power/ability

PercentOfAnimation - The moment in the animation when to do NPC ragdoll

Mana - Mana needed to activate the power/ability

Self Explosion Object:

DetectLength - The length needed to find a target

ExplosionRadius - Detection radius value using traces

Radius - The effect takes place in this radius using radial impulse

Strength - Radial impulse strength

ParticleToSpawn - Play particle effect

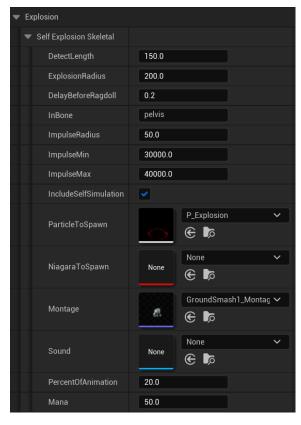
NiagaraToSpawn - Play Niagara effect

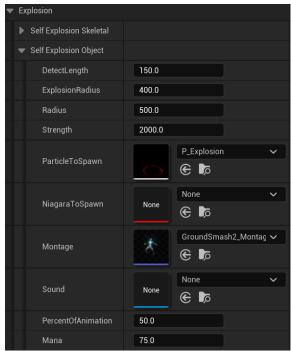
Montage - Montage to play related to the power/ability

Sound - SFX related to the power/ability

 $\label{percentOfAnimation} \textbf{-} \ \mbox{The moment in the animation when}$

to do impulse damage that affects the object

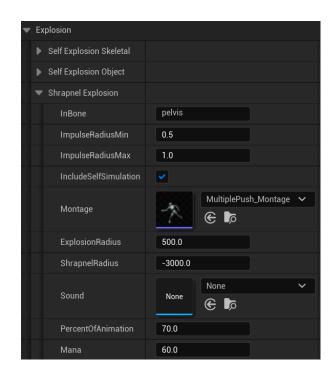




Shrapnel Explosion:

InBone - The bone from which the ragdoll start
ImpulseRadiusMin - Impulse effect in a minimal radius
ImpulseRadiusMax - Impulse effect in a maximum radius
IncludeSelfSimulation - Do simulation for the victim
Montage - Montage to play related to the power/ability
ExplosionRadius - Detection radius value using traces
ShrapnelRadius - Exponential power for impulse
Sound - SFX related to the power/ability
PercentOfAnimation - The moment in the animation when to do NPC ragdoll

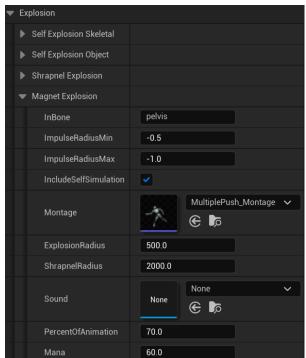
Mana - Mana needed to activate the power/ability



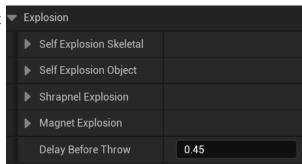
Magnet Explosion:

InBone - The bone from which the ragdoll start
ImpulseRadiusMin - Impulse effect in a minimal radius
ImpulseRadiusMax - Impulse effect in a maximum radius
IncludeSelfSimulation - Do simulation for the victim
Montage - Montage to play related to the power/ability
ExplosionRadius - Detection radius value using traces
ShrapnelRadius - Exponential power for impulse
Sound - SFX related to the power/ability
PercentOfAnimation - The moment in the animation when to do NPC ragdoll

Mana - Mana needed to activate the power/ability



Delay Before Throw - Throw a grenade of Shrapnel or Magnet With a delay in the animation before the throw of the grenade



Pull and Push Force Skeletal:

DetectLength - The length needed to find a target

ForceRadius - Capsule trace radius

ForceHalfHeight - Capsule trace half-height

InBone - The bone from which the ragdoll start

ImpulseRadius - The effect takes place in this radius

ImpulseMin - The minimum hit power

ImpulseMax - The maximum hit power

IncludeSelfSimulation - Do simulation for the victim

BoneToForce - The bone that is taken from the victim for pull

ParticleToSpawnPull - Play particle effect for pull

NiagaraToSpawnPull - Play Niagara effect for pull

MontagePull - Montage to play related to pull

SoundPull - SFX related to pull

PercentOfAnimationPull - The moment in the pull animation when to do ragdoll

ParticleToSpawnPush - Play particle effect for push

NiagaraToSpawnPush - Play Niagara effect for push

MontagePush - Montage to play related to push

SoundPush - SFX related to push

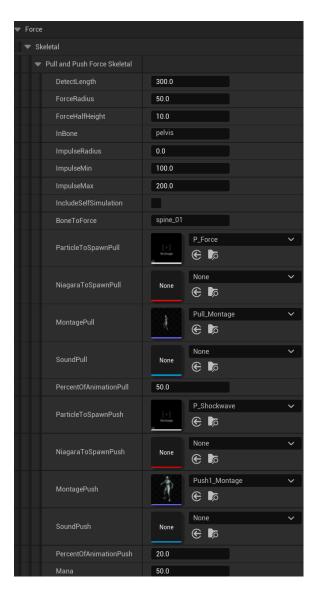
 $\label{percentofAnimationPush} \textbf{-} \ \textbf{The moment in the push}$

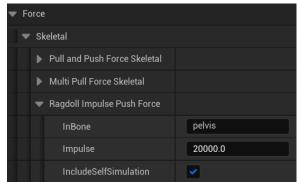
animation when to do ragdoll

using force

Mana - Mana needed to activate the power/ability

InBone - The bone from which the ragdoll starts using force Impulse - Impulse effect using force IncludeSelfSimulation - Do a simulation for the victim





Multi Pull Force Skeletal:

DetectLength - The length needed to find a target

ForceRadius - Multi-sphere trace radius

InBone - The bone from which the ragdoll start

DelayBeforeRagdoll - Delay before ragdoll start

ImpulseRadius - The effect takes place in this radius

ImpulseMin - The minimum hit power

ImpulseMax - The maximum hit power

IncludeSelfSimulation - Do simulation for the victim

BoneToForce - The bone that is taken from the victim for multiple pulls

ParticleToSpawnPull - Play particle effect for multiple pulls

NiagaraToSpawnPull - Play Niagara effect for multiple pulls

MontagePull - Montage to play related to multiple pulls

SoundPull - SFX related to multiple pulls

PercentOfAnimationPull - The moment in the multiple pulls animation when to do ragdoll

ParticleToSpawnPush - Play particle effect for multiple pushes

NiagaraToSpawnPush - Play Niagara effect for multiple pushes

MontagePush - Montage to play related to multiple pushes

SoundPush - SFX related to multiple pushes

PercentOfAnimationPush - The moment in the multiple pushes animation when to do ragdoll

Mana - Mana needed to activate the power/ability

Pull and Push Force Skeletal Multi Pull Force Skeletal DetectLength 150.0 ForceRadius 500.0 pelvis DelayBeforeRagdoll 0.0 100.0 ImpulseMin 200.0 IncludeSelfSimulation spine_01 € 🕟 € 🖟 MultiplePull_Montage MontagePull € 📭 None SoundPull € 🕟 PercentOfAnimationPull P_Shockwave € 📭 NiagaraToSpawnPush € 🕟 MultiplePush_Montage MontagePush € 📭 SoundPush € 🕟 PercentOfAnimationPush 20.0

Push Force Skeletal:

DetectLength - The length needed to find a target

ForceRadius - Capsule trace radius

ForceHalfHeight - Capsule trace half-height

BoneToForce - The bone that is taken from the victim for push

ParticleToSpawn - Play particle effect for push

NiagaraToSpawn - Play Niagara effect for push

Montage - Montage to play related to push

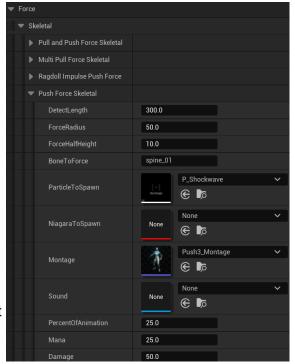
Sound - SFX related to push

PercentOfAnimation - The moment in the push

animation when to do NPC ragdoll

Mana - Mana needed to activate the power/ability

Damage - Damage from power if an enemy uses a health component



Push Force Skeletals:

DetectLength - The length needed to find a target

HalfSize - Multi-box trace

BoneToForce - The bone that is taken from the victim for pushes

ParticleToSpawn - Play particle effect for pushes

NiagaraToSpawn - Play Niagara effect for pushes

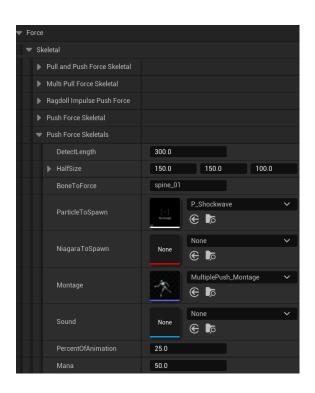
Montage - Montage to play related to pushes

Sound - SFX related to pushes

PercentOfAnimation - The moment in the push es

animation when to do NPC ragdoll

Mana - Mana needed to activate the power/ability



Pull and Push Force Object:

DetectLength - The length needed to find a target

ForceRadius - Capsule trace radius

ForceHalfHeight - Capsule trace half-height

InBone - The bone from which the ragdoll start

ImpulseRadius - The effect takes place in this radius

ImpulseMin - The minimum hit power

ImpulseMax - The maximum hit power

IncludeSelfSimulation - Do simulation for the victim

BoneToForce - The bone that is taken from the victim for pull

ParticleToSpawnPull - Play particle effect for pull

NiagaraToSpawnPull - Play Niagara effect for pull

MontagePull - Montage to play related to pull

SoundPull - SFX related to pull

PercentOfAnimationPull - The moment in the pull

animation when to do ragdoll

ParticleToSpawnPush - Play particle effect for push

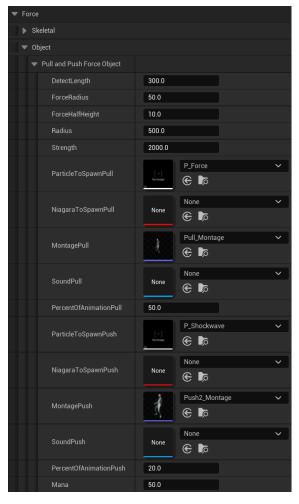
NiagaraToSpawnPush - Play Niagara effect for push

MontagePush - Montage to play related to push

SoundPush - SFX related to push

PercentOfAnimationPush - The moment in the push

animation when to do ragdoll



Multi Pull Force Object:

DetectLength - The length needed to find a target

ForceRadius - Capsule trace radius

Radius - The effect takes place in this radius using radial impulse

Strength - Radial impulse strength

ParticleToSpawnPull - Play particle effect for pull

NiagaraToSpawnPull - Play Niagara effect for pull

MontagePull - Montage to play related to pull

SoundPull - SFX related to pull

PercentOfAnimationPull - The moment in the pull animation when to do ragdoll

ParticleToSpawnPush - Play particle effect for push

NiagaraToSpawnPush - Play Niagara effect for push

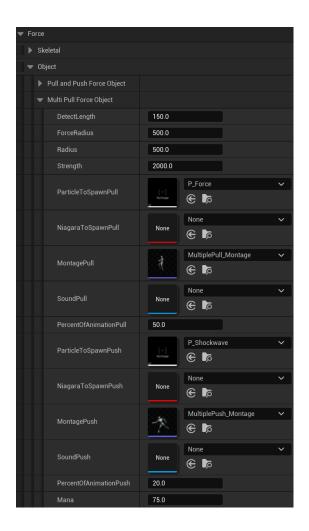
MontagePush - Montage to play related to push

SoundPush - SFX related to push

 $\label{percentOfAnimationPush} \textbf{-} \ \mbox{The moment in the push}$

animation when to do ragdoll

Mana - Mana needed to activate the power/ability



Push Force Object:

DetectLength - The length needed to find a target

ForceRadius - Capsule trace radius

ForceHalfHeight - Capsule trace half-height

Radius - The effect takes place in this radius using radial impulse

Strength - Radial impulse strength

ParticleToSpawn - Play particle effect for push

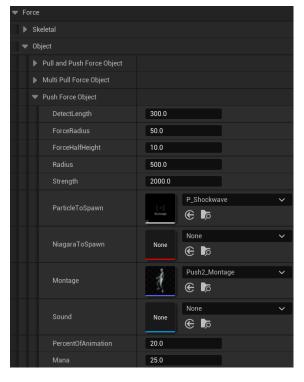
NiagaraToSpawn - Play Niagara effect for push

Montage - Montage to play related to push

Sound - SFX related to push

PercentOfAnimation - The moment in the push

animation when to do NPC ragdoll



Push Force Objects:

DetectLength - The length needed to find a target

HalfSize - Multi-box trace

Radius - The effect takes place in this radius using radial impulse

Strength - Radial impulse strength

ParticleToSpawn - Play particle effect for pushes

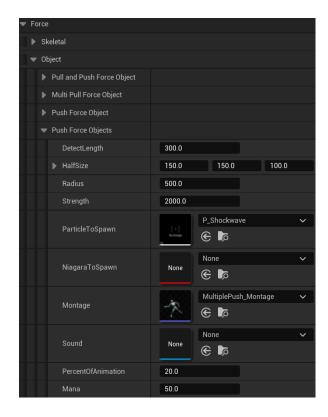
Niagara ToSpawn - Play Niagara effect for pushes

Montage - Montage to play related to pushes

Sound - SFX related to pushes

PercentOfAnimation - The moment in the push es animation when to do NPC ragdoll

Mana - Mana needed to activate the power/ability

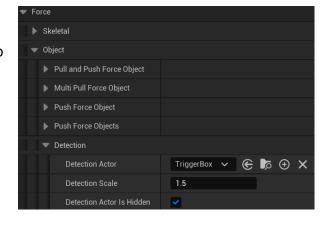


Detection:

Detection Actor - An actor/object created on top of hit object to Give damage to other actors that overlap. Most of the time, it will be Used with triggers or other collisions that can overlap

Detection Scale - Increase the scale of detection actor to have overlap

Detection Actor Is Hidden - Set the detection actor to be hidden in the world or visible



Mana:

Use Mana System - The option to have a mana system or not, By default, the system is enabled

Max Mana - The maximum starting mana available at the beginning **Update Time Restoration -** The time to restore the mana Gradually

Initial Start Delay Restoration - Delay before the restoration begins

Can Restore Mana - Is the restoration system in use or not, by default, the system is enabled



Speedster:

SlowMotionSpeed - The world speed by default 1=100% speed

StandardSpeed - The default speed of the main character

SprintSpeed - The sprint speed of the main character

MinLaunchHeight - The minimum exponential height (Z axis) to launch NPC

MaxLaunchHeight - The maximum exponential height (Z axis) to launch NPC

InBone - The bone from which the ragdoll start

ImpulseRadius - The effect takes place in this radius

ImpulseMin - The minimum hit power

ImpulseMax - The maximum hit power

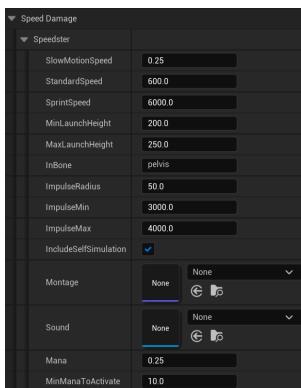
IncludeSelfSimulation - Do simulation for the victim

Montage - Montage to play related to pushes

Sound - SFX related to the power/ability

Mana - Mana needed to activate the power/ability

MinManaToActivate- The required minimum mana to activate the power/ability



Laser Beam:

DelayBeforeRagdoll - Delay before ragdoll start

ImpulseMin - The minimum hit power

ImpulseMax - The maximum hit power

IncludeSelfSimulation - Do simulation for the victim

FreezeRagdoll - Is the ragdoll will be stopped or not

(for optimization purposes)

TimeBeforeFreezeRagdoll - The time before the ragdoll freeze activated and affected only if the FreezeRagodll is enabled

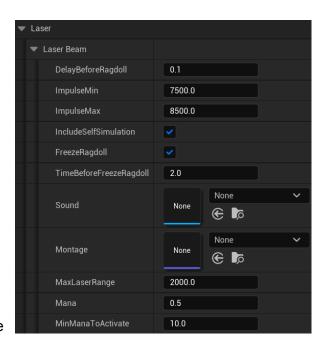
Sound - SFX related to the power/ability

Montage - Montage to play related to pushes

MaxLazerRange - The range of the laser Power/ability

Mana - Mana needed to activate the power/ability

MinManaToActivate - The required minimum mana to activate the power/ability



Rain Of Arrows:

Spacing - The space between arrows

SplineRotation - Use spline rotation to rotate the arrows

RandomRotation - Use random spline rotation to rotate the arrows

Spread - Spread arrows value, combination with "Spacing" to give the amount

ProjectileGravityScale - The gravity of the arrows

Initial/MaxSpeed - The speed of the arrows

IncludeSelfSimulation - Do simulation for the victim

DecalEffect - A decal material appears on a static surface when overlap with it

MinDecalEffectScale - The minimum scale of the decal

MaxDecalEffectScale - The maximum scale of the decal

DecalEffectLifeSpan - Delay before the decal disappears (zero value means that the decal doesn't disappear)

FreezeRagdoll - Is the ragdoll will be stopped or not (for optimization purposes)

TimeBeforeFreezeRagdoll - The time before the ragdoll freeze activated and affected only if the FreezeRagodll is enabled

ArrowLifeSpan - Delay before the arrows disappear (zero value means that the arrows don't disappear)

MinImpulse - The minimum hit power

MaxImpulse - The maximum hit power

Montage - Montage to play related to pushes

Sound - SFX related to the power/ability

SpawnLocationCorrection - Add correction to spawn location

Mana - Mana needed to activate the power/ability

Black Hole:

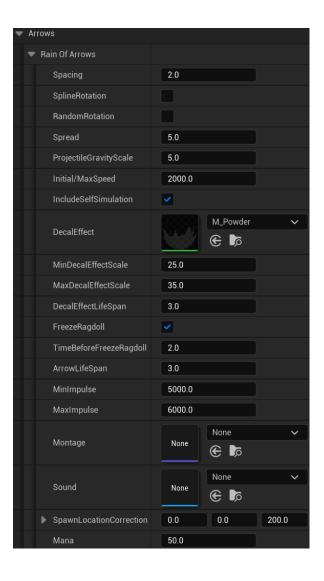
GravityStrengthSkeletal - Add to spawn location

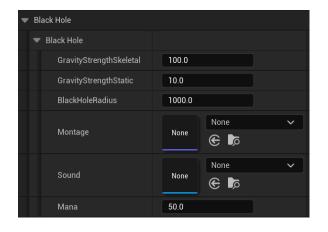
GravityStrengthStatic - Add to spawn location

BlackHoleRadius - Add to spawn location

Montage - Montage to play related to pushes

Sound - SFX related to the power/ability





Controlled Black Hole:

SocketSpawnLocation - Starting point location-based socket

AdditionalSpawnLocation - Add correction to spawn location

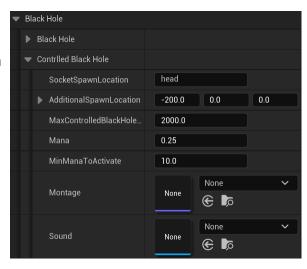
BlackHoleRadius - Add to spawn location

Mana - Mana needed to activate the power/ability

MinManaToActivate - The required minimum mana to activate the power/ability

Montage - Montage to play related to pushes

Sound - SFX related to the power/ability



Rain Of Spears:

Spacing - The space between arrows

Spread - Spread the spears value, in combination with "Spacing" to give the amount

SpearSpawnDuration - Spears will be spawned with a delay

Additional Angle Rotation - Add correction to spawn rotation

ProjectileGravityScale - The gravity of the spears

Initial/MaxSpeed - The speed of the spears

IncludeSelfSimulation - Do simulation for the victim

DecalEffect - A decal material appears on a static surface when overlap with it

MinDecalEffectScale - The minimum scale of the decal

MaxDecalEffectScale - The maximum scale of the decal

DecalEffectLifeSpan - Delay before the decal disappears

(zero value means that the decal doesn't disappear)

FreezeRagdoll - Is the ragdoll will be stopped or not (for optimization purposes)

TimeBeforeFreezeRagdoll - The time before the ragdoll freeze activated and affected only if the FreezeRagodll is enabled

SpearLifeSpan - Delay before the arrows disappear (zero value means that the spears don't disappear)

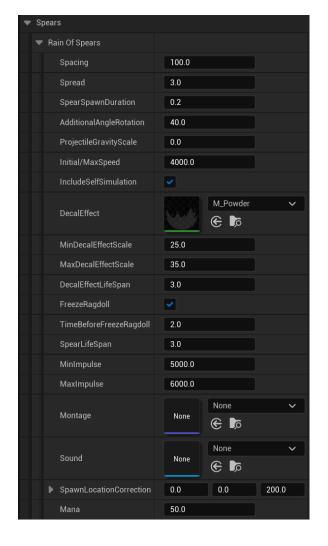
MinImpulse - The minimum hit power

Maximpulse - The maximum hit power

Montage - Montage to play related to pushes

Sound - SFX related to the power/ability

SpawnLocationCorrection - Add correction to spawn location



Laser Beam:

MaxWreckingBallRange - The range of the wrecking ball

InBone - The bone from which the ragdoll start

DelayBeforeImpulse - Wait before the hit effect takes place

Impulse - The hit power

IncludeSelfSimulation - Do simulation for the victim

FreezeRagdoll - Is the ragdoll will be stopped or not

(for optimization purposes)

TimeBeforeFreezeRagdoll - The time before the ragdoll freeze activated and affected only if the FreezeRagodll is enabled

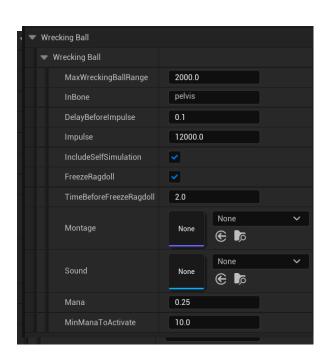
Sound - SFX related to the power/ability

Montage - Montage to play related to pushes

MaxLazerRange - The range of the laser Power/ability

Mana - Mana needed to activate the power/ability

MinManaToActivate - The required minimum mana to activate the power/ability



Fireball:

InBone - The bone from which the ragdoll start

DelayBeforeImpulse - Wait before the hit effect takes place

Impulse - The hit power

IncludeSelfSimulation - Do simulation for the victim

FreezeRagdoll - Is the ragdoll will be stopped or not (for optimization purposes)

TimeBeforeFreezeRagdoll - The time before the ragdoll freeze activated and affected only if the FreezeRagodll is enabled

SocketLocation - Starting point location-based socket

MaxFireballRange - The range of the fireball Power/ability

PercentOfAnimation - The moment in the fireball animation where the VFX spawned

Montage - Montage to play related to the power/ability

Sound - SFX related to the power/ability

FireballParticleEffect - Play the beginning particle effect

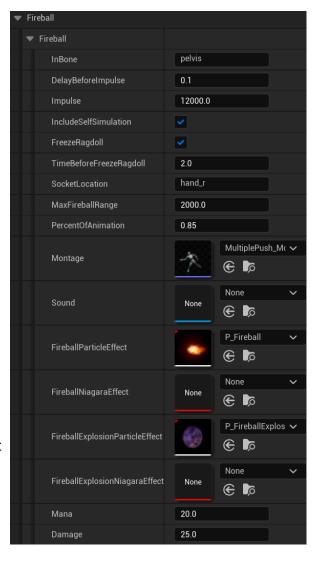
FireballNiagaraEffect - Play the beginning Niagara effect

FireballExplosionParticleEffect - Play finish particle effect

FireballExplosionNiagaraEffect - Play finish Niagara effect

Mana - Mana needed to activate the power/ability

Damage - Damage from power if an enemy uses a health component



Fireball:

Distance - Distance from the player where to spawn power/ability

DetectionRadius - The radius that the power/ability takes effect

Mana - Mana needed to activate the power/ability

SpawnTimeMin - The minimum time before spawn

SpawnTimeMax - The maximum time before spawn

Big Meteor Rain:

InBone - The bone from which the ragdoll start **ImpulseRadiusMin** - The minimum hit power ImpulseRadiusMax - The maximum hit power IncludeSelfSimulation - Do simulation for the victim **EffectRadius** - The hit power in radius MomentOfMeteorRainInPercent - The moment in the Meteor rain animation where the VFX spawned **MeteorAmount** - The number of meteors to spawn TakeEffectRadius - The radius of destruction **MeteorMoveSpeed** - The speed of the meteors when they fall **ExplosionRadius -** The explosion effect around the meteor **SpawnHeight** - Start location of meteor rain **MinSpawnTime** - The minimum time before spawn **MaxSpawnTime** - The maximum time before spawn Niagara EffectInAction - Play the beginning Niagara effect ParticleEffectInAction - Play the beginning particle effect NiagaraFinishEffect - Play finish Niagara effect ParticleFinishEffect - Play finish particle effect MontagePowerIdle - Montage to play related to the power/ability

Sound - SFX related to the power/ability

WingsMesh - Static mesh as an additional visual effect

WingsSocketLocation - Wings placement on the player rig

Mana - Mana needed to activate the power/ability

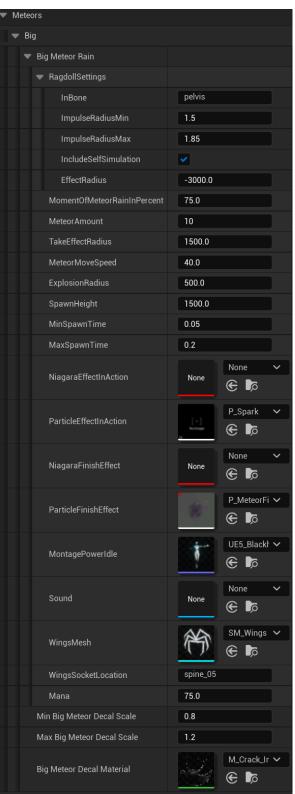
Min Big Meteor Decal Scale - Decal material minimum scale

Max Big Meteor Decal Scale - Decal material maximum

scale

Big Meteor Decal Material - A decal material appears on a static surface when overlapping with it





Big Meteor Rain:

InBone - The bone from which the ragdoll start

ImpulseRadiusMin - The minimum hit power

ImpulseRadiusMax - The maximum hit power

IncludeSelfSimulation - Do simulation for the victim

EffectRadius - The hit power in radius

MomentOfMeteorRainInPercent - The moment in the

Meteor rain animation where the VFX spawned

MeteorAmount - The number of meteors to spawn

TakeEffectRadius - The radius of destruction

MeteorMoveSpeed - The speed of the meteors when they fall

ExplosionRadius - The explosion effect around the meteor

SpawnHeight - Start location of meteor rain

MinSpawnTime - The minimum time before spawn

MaxSpawnTime - The maximum time before spawn

NiagaraEffectInAction - Play the beginning Niagara effect

ParticleEffectInAction - Play the beginning particle effect

NiagaraFinishEffect - Play finish Niagara effect

ParticleFinishEffect - Play finish particle effect

MontagePowerIdle - Montage to play related to the

power/ability

Sound - SFX related to the power/ability

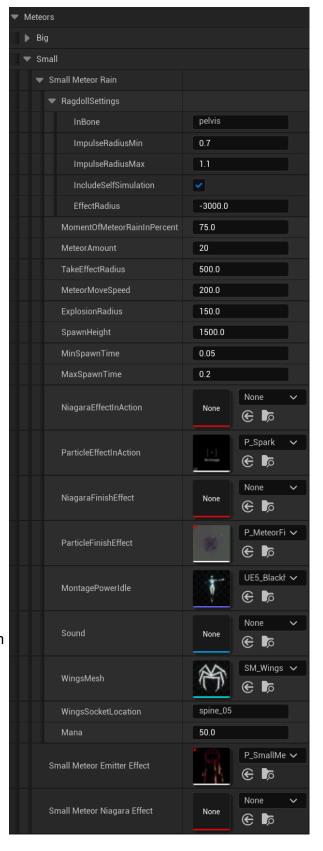
WingsMesh - Static mesh as an additional visual effect

WingsSocketLocation - Wings placement on the player rig

Mana - Mana needed to activate the power/ability

Small Meteor Particle Effect - Particle for small meteor rain

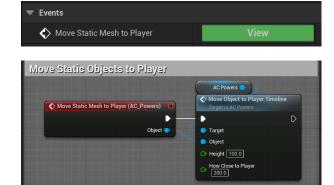
Small Meteor Niagara Effect - Niagara for small meteor rain



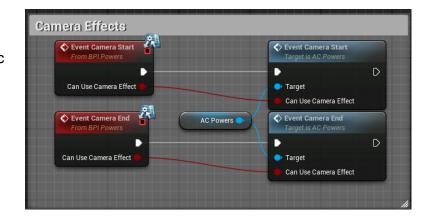
Mega Powers (Player)

This event is used for moving objects using the powers and can Be found inside the player's blueprint in "Mega Powers"

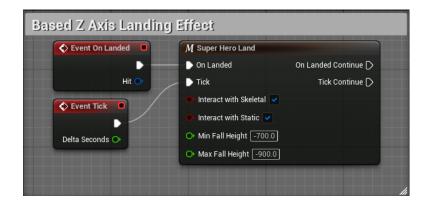




Camera effect start and end for some of the kinematic powers/abilities



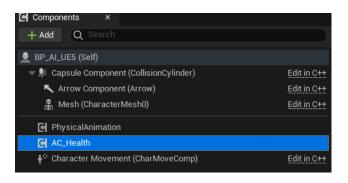
When landing from height and there are Al/NPC or Objects will be affected by self-explosion powers/abilities



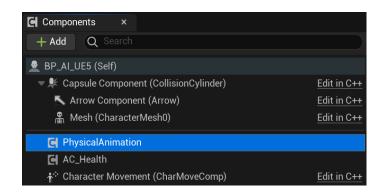
AC_Health

The health component will be inside the AI/NPC and will contain an option to enable/disable health and set health value (by default the component is disabled and can be enabled by checking "Can Use Health")



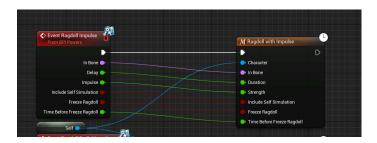


PhysicalAnimation component needed to do physical effects The main use of the component is for being grabbed by the player



Mega Powers (AI/NPC)

Do ragdoll impulse effect on the AI/NPC in one direction



Do ragdoll radial impulse effect on the AI/NPC in all directions



This event is used for moving the skeletal type (AI/NPC) to the player.



Note:

- 1) Every power/ability that can be found inside AC_Powers has a color that represents the power/ability in the levels, this way it's easy to find the code related to the power/ability.
- 2) Some of the powers use navigation mesh for better positioning (in this case it's a must-have option).
- 3) Do your binding for every power/ability and to find all the available powers you can go to the provided controller under the name "BP_PC_Sandbox_UE5" or "BP_PC_Sandbox_UE4".