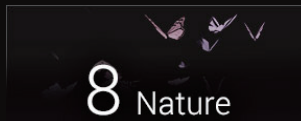

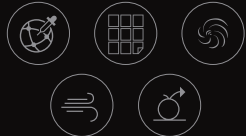


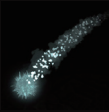







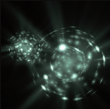

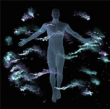
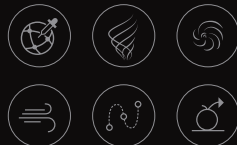





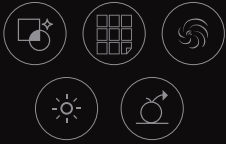

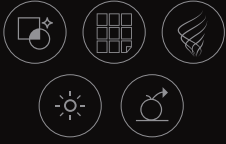



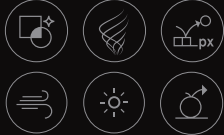
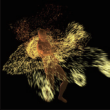







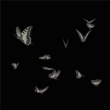

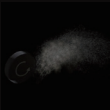

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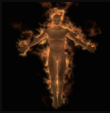








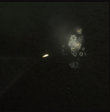


























Magic	Specific Attributes	Quick Tips	Features
 <p>Blue Aura</p>	<ul style="list-style-type: none"> Wind Direction Wind Force Wind Turbulence Brightness Lifetime Randomness Distortion Scale Distortion Intensity 	<ul style="list-style-type: none"> Sample a static, skinned, or blendshaped mesh for the emitter shape to generate the Blue Aura effect. Smoke textures can be replaced. 	
 <p>Bursting Ball</p>	<ul style="list-style-type: none"> Ball Size Speed Brightness Emission Turbulence Light Size Light Intensity 	<ul style="list-style-type: none"> Move the emitter spread the particles around. Adjust the Light Intensity parameter to create artificial lighting when global illumination is disabled. You can change out the texture for the emitted particles. 	
 <p>Cast Ice Ball</p>	<ul style="list-style-type: none"> Ice Ball Size Ice Ball Intensity Ice Ball Glow Intensity Ice Ball Rotation Direction(X/Y/Z) Ice Ball Rotation Speed Tail Length Tail Density Tail Intensity Debris Size Gravity Light Intensity Smoke Opacity 	<ul style="list-style-type: none"> Move the emitter around to generate the Cast Ice Ball effect. Re-simulate the effect if the trail no longer follows the emitter (hotkey: Shift-S). Adjust the Light Intensity parameter to create artificial lighting when global illumination is disabled. The mesh for the ice ball can be replaced. 	
 <p>Cast Meteor</p>	<ul style="list-style-type: none"> Meteor Size Meteor Rotation Direction (X/Y/Z) Meteor Rotation Speed Flame Density Flame Brightness Tail Length Gravity Distortion Light Intensity 	<ul style="list-style-type: none"> Move the emitter around to generate the Cast Meteor effect. Re-simulate the effect if the trail no longer follows the emitter (hotkey: Shift-S). Adjust the Light Intensity parameter to create artificial lighting when global illumination is disabled. The mesh for the ice ball can be replaced. 	
 <p>Column Thunder</p>	<ul style="list-style-type: none"> Flash Ball Size Brightness Lifetime Randomness Light Intensity 	<ul style="list-style-type: none"> Adjust the Light Intensity parameter to create artificial lighting when global illumination is disabled. 	





 <p>Lightning Attack</p>	<ul style="list-style-type: none"> Probe Length Probe Random Variation Spread Light Intensity (Check Box) Show Flash Ball 	<ul style="list-style-type: none"> The Lightning strokes will emit toward all physics-enabled meshes in the scene. Adjust Spread to determine the size of the cone to shrink or expand the space in which the lightning strokes will spawn and fan out. Adjust the Light Intensity parameter to create artificial lighting when global illumination is disabled. 	
 <p>Lightning Attack</p>	<ul style="list-style-type: none"> Scatter Spin Speed Rotation Speed Orbit Opacity Ratio Light Intensity 	<ul style="list-style-type: none"> Change out the Particle texture to alter the shape of the orbs. Adjust the Light Intensity parameter to create artificial lighting when global illumination is disabled. 	
 <p>Magic Surround</p>	<ul style="list-style-type: none"> Trail Length Speed Direction Randomness (Checkbox) Moving Direction Direction (X/Y/Z) Gravity 	<ul style="list-style-type: none"> Place the emitter at the scene root position at world-space coordinate of (0,0,0) and make sure to not move it by accident. Sample a static mesh for the emitter shape for the sparkles to revolve around. Make sure to place the sampled mesh at a set position and do not move it. Modify the Moving Direction to direct the sparkles in a single direction. 	
 <p>Power Celestial</p>	<ul style="list-style-type: none"> Dust Flux Trail Flux Brightness Speed Emission Turbulence Light Intensity 	<ul style="list-style-type: none"> Trail and Dust textures can be replaced. Adjust the Light Intensity parameter to create artificial lighting when global illumination is disabled. 	
 <p>Power Dragon</p>	<ul style="list-style-type: none"> Brightness Dragon Speed Vortex Speed Distortion Intensity Light Intensity Head Scale Show Trail Show Horn 	<ul style="list-style-type: none"> The dragon head mesh can be replaced. Adjust the Light Intensity parameter to create artificial lighting when global illumination is disabled. 	
 <p>Power Fury</p>	<ul style="list-style-type: none"> Flame Power Impulse Spark Flux Emission Turbulence Light Intensity 	<ul style="list-style-type: none"> You can change out the Fire texture, adjust the Fire Colors and Spark Flux. Adjust the Light Intensity parameter to create artificial lighting when global illumination is disabled. 	
 <p>Power Shadow</p>	<ul style="list-style-type: none"> Line Power Flow Speed Smoke Size Smoke Speed Height Trail Segment Interval Light Intensity 	<ul style="list-style-type: none"> You can change out the Line texture, adjust the Line Colors and Flow Speed. Adjust the Light Intensity parameter to create artificial lighting when global illumination is disabled. 	
 <p>Power Sparkle</p>	<ul style="list-style-type: none"> Brightness Dust Flux Emission Turbulence Light Intensity 	<ul style="list-style-type: none"> Adjust the Light Intensity parameter to create artificial lighting when global illumination is disabled. 	

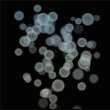

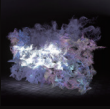

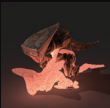
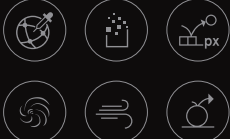
 Slide Lightning	<ul style="list-style-type: none"> Smoke Life Head Size Trail Length Light Intensity Gravity 	<ul style="list-style-type: none"> The particles will gravitate toward all physics-enabled meshes in the scene. Adjust the Light Intensity parameter to create artificial lighting when global illumination is disabled. 	
 Slide Lightning	<ul style="list-style-type: none"> Brightness Speed Threshold Ejection Speed (Normal Direction) Gravity 	<ul style="list-style-type: none"> Sample a static, skinned, or blendshaped mesh for the emitter shape. The number of particles is determined by the velocity of the movement speed or mesh animation. Adjust the Speed Threshold to control the rate of emission. The emitter will keep spawning particles when the Speed Threshold is set too low, even when the sampled shape is motionless. 	
 Spell Trail	<ul style="list-style-type: none"> Head Color & Opacity Trail Color & Opacity Trail Length Smoke Color & Opacity/Flux Spark Color & Opacity Spark Flux Light Size Light Intensity 	<ul style="list-style-type: none"> Move the emitter around to generate a spell trail. Faster moving emitters create longer elongated trails. Set Head Opacity to 0 to hide the head of the spell. Adjust the Light Intensity parameter to create artificial lighting when global illumination is disabled. 	
 Teleporter	<ul style="list-style-type: none"> 4 parts : Stream(Red + Green + Blue) & Vortex - Lifetime - Speed - Color & Opacity - Particle Size Vortex Expansion 	<ul style="list-style-type: none"> The SpawnMask image is partitioned into 3 parts: Red color: determines the areas of emission for Stream Red. Green color: determines the areas of emission for Stream Green. Blue color: determines the areas of emission for Stream Blue. The placement of each stream is based on the colors of the SpawnMask and the uvs of the sampled emitter shape. 	

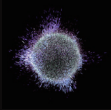
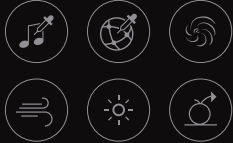

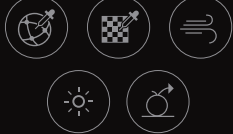

Nature	Specific Attributes	Quick Tips	Features
 Butterfly	<ul style="list-style-type: none"> Spawn Volume Flapping Speed Flying Speed Flying Height 	<ul style="list-style-type: none"> Emit the butterflies from the position of the emitter by default or define a custom volume. Butterflies can land on physics-enabled surfaces upon collision. Set Flux to 0 to stop the emission. You can change the butterfly color and textures then respawn them in the new look by re-adjusting the Flux parameter. 	
 Car Dust	<ul style="list-style-type: none"> Part : (Left Wheel, Right Wheel, Left Side, Right Side) Ambient Color Speed 	<ul style="list-style-type: none"> Attach multiple Car Dust particle effects to different parts of the car. Adjust the Part combo box to correspond with the proper section of the vehicle: left wheel, right wheel, left side, right side. 	

 <p>Crawl on Mesh</p>	<ul style="list-style-type: none"> • Life (Roaches/Ant) • Scale (Roaches/Ant) • Density (Roaches/Ant) • Color Overlay (Roaches/Ant) • Roaches Scale Randomness • Move Speed (Roaches/Ant) • Height Offset (Roaches/Ant) • Moving Force (X/Y/Z) 	<ul style="list-style-type: none"> • Place the particle emitter at root position of (0,0,0) in world-space coordinates and makes sure to not move it by accident. • Sample a static mesh for the insects to crawl on and makes sure to not move it. <ul style="list-style-type: none"> - Alternatively, you can apply Crawl on Mesh prop into the scene to include the human bust along with the particle effect. - Make sure to place this prop at the scene root position of (0,0,0) in world-space coordinates, otherwise, the particles will not emit. - You can find this prop in Content Manager > Prop > PopcornFX > PopcornFX Library 40 > Crawl on Mesh.iProp. • The red region(s) on the RoachIMG and AntIMG textures determine the points of emission. • Replace the texture for the ant and the mesh for the roach to change the look of the particle effect. • Adjust Height Offset in order to match the crawling position of the insects to the mesh surface. • Adjust Move Force to modify the moving direction for all of the insects. 	 
 <p>Flick Water</p>	<ul style="list-style-type: none"> • Speed Threshold • Start Mex Speed • Color Intensity (Min/Max) • Distortion Intensity 	<ul style="list-style-type: none"> • Sample a static, skinned, or blendshaped mesh to change the emitter shape. • The amount of water increases with the speed of the sampled object's motion or the animation for the sampled mesh. • Adjust the Speed Threshold to control the sensitivity to the motion and animation of the sampled mesh. 	
 <p>Flow Move</p>	<ul style="list-style-type: none"> • Area Range • Dummy Size • Leaf Size • Speed Factor (X/Y) • Gravity 	<ul style="list-style-type: none"> • Both particle effects must be adjusted in tandem to create the proper visual result. • * Flow Move - Leaves: both the emitter and physics plane must be zeroed out in the Z axis. • * Flow Move - Dummy is used to drive the main moving force. • Move the Flow Move - Dummy emitter to push away the leaves and make them blow around it's movement direction. • Use gravity to control the falling speed of the flowing leaves. 	
 <p>Fur</p>	<ul style="list-style-type: none"> • Strands Per Surface Unit • Particles Per Strand • Strand Length • Strand Thickness • Vertical Resist • Acceleration to Velocity • Damping • Normal Speed • Downward Force • Hair Color Randomness (R/G/B) 	<ul style="list-style-type: none"> • Sample a static, skinned, or blendshaped mesh for the emitter shape. • Note: single-uv meshes are recommended; Multiple UVs and multi-textures can cause unexpected results. • Some attributes require re-simulation for the changes to take effect such as Particles Per Surface Unit and Particles Per Strand (shortcut: Shift-S). • Use Color_Map_on_Mesh to assign a color texture for the fur. • Use Texture_for_Emission to control aspects of the fur: Red channel: length Green channel: thickness Blue channel: vertical resistance Alpha channel: damping 	
 <p>Rain</p>	<ul style="list-style-type: none"> • Zone • Zone Scale • Ground Position • Distortion • Drop Ripples • Ripple Opacity • Ripple Distortion • Splash • Fog Opacity & Emission • Wind Direction • Wind Force • Wind Turbulence 	<ul style="list-style-type: none"> • Rain drops will generate ripples and splashes when they strike the collision-enabled ground. • The Rain drop textures can be replaced. 	
 <p>Water Hose</p>	<ul style="list-style-type: none"> • Hose Strength • Spread • Distortion Intensity • Water Mass 	<ul style="list-style-type: none"> • Water droplets will spawn from the emitter's position and bounce off of physics-enabled objects (one-way simulation). • Adjust the Elasticity parameter for the iClone physics object to strengthen or weaken the magnitude of the bounce. • Rotate the emitter to change the direction of the particle emission. 	

Weapons & Explosives	Specific Attributes	Quick Tips	Features
 Blast	<ul style="list-style-type: none"> Blast Light Size Blast Light Brightness Light Intensity Ground Dust Amount Burning Debris Amount Ground Dust Tint Ground Dust Opacity 	<ul style="list-style-type: none"> You can replace the textures for the smoke, debris and ground dust. Adjust the Light Intensity parameter to create artificial lighting when global illumination is disabled. 	      
 Burning Flame	<ul style="list-style-type: none"> Fire Speed Fire Separate Lifetime Randomness Wind Direction Distortion Intensity 	<ul style="list-style-type: none"> Sample a static, skinned, or blendshaped mesh for the emitter shape to generate the burning flames. Fire textures can be replaced. 	    
 Fire Trail	<ul style="list-style-type: none"> Emit Time Interval Emit Duration Stop Fire Turbulence 	<ul style="list-style-type: none"> Move the emitter around to generate a particle trail. Adjust Emit Duration to prolong or shorten the time it takes to set the path on fire. Adjust Fire Lifetime to prolong or shorten the lifespan of the fire particles. 	 
 Firearm	<ul style="list-style-type: none"> Position Offset (X/Y/Z) Burst Fire (0: Infinite) Interval (sec) Bullet Size Bullet Speed Smoke Amount Debris Amount Flash Size Ember Percentage Bullet Direction Randomness Bullet Gravity Vortex Intensity Vortex Intensity Randomness Light Intensity 	<ul style="list-style-type: none"> Firearm is comprised of several particle effects including flash, bullet, vortex, collision decal, smoke and bouncing debris. Attach the particle emitter to a gun model's muzzle. Adjust the rate of fire to single or multiple shots with predefined number of rounds. After running out of bullets, enable Emit On once again to fire off another volley of bullets. Set Burst Fire to 0 in order to fire indefinitely. You are allowed to replace the bullet mesh and sprite map for the flash, smoke, vortex, decal, and debris texture channels. Adjust Gravity to give the bullet trajectory a naturally arch. 	      
 Fireworks	<ul style="list-style-type: none"> Scale Area A & B Position A & B Flux A & B Fly Height Rocket Speed Randomness Light Intensity 	<ul style="list-style-type: none"> Fireworks is comprised of two effect types which includes Radial (Type A) and Ring (Type B) shapes. You can adjust the Area, Position, and Flux for each effect type. Reduce Flux number for single firework emission. 	  
 Flame Thrower	<ul style="list-style-type: none"> Throtte Velocity Randomness 	<ul style="list-style-type: none"> Smoke will be emitted from the floor as the flame strikes the collision-enabled ground. Move the emitter around to generate the Flame Thrower effect. Rotate the emitter to chane the direction of the particle emission. 	      
 Meteor Explosion	<ul style="list-style-type: none"> Target Area Scale Start Area Scale Angle (X/Y/Z) Size Scale Randomness Meteor Speed Rotation Speed Tail Size Tail Length Tail Flux Flux Scale Randomness Distortion Intensity Light Intensity Meteor Mass 	<ul style="list-style-type: none"> Smoke and debris will be created when the particle effect strikes the collision-enabled ground. Meteors have two-way physics which allows it push away other dynamic objects. Adjust the Light Intensity parameter to create artificial lighting when global illumination is disabled. You can replace the meteor rock mesh. 	     

 <p>Smoke</p>	<ul style="list-style-type: none"> • Impulse (X/Y) • Zone (X/Y) • Gravity • Wind Direction • Wind Force • Wind Turbulence 	<ul style="list-style-type: none"> • You can replace the sprite image for the Smoke animation sequence. 	
 <p>Torch Fire</p>	<ul style="list-style-type: none"> • Brightness(Start/End) • Smoke Size • Light Intensity • Emission Turbulence • Distortion Scale • Wind Direction • Wind Force • Wind Turbulence 	<ul style="list-style-type: none"> • You can replace the sprite image for the Torch Fire animation sequence. • Adjust the Light Intensity parameter to create artificial lighting when global illumination is disabled. 	

VFX	Specific Attributes	Quick Tips	Features
 <p>Bokeh</p>	<ul style="list-style-type: none"> • Focus Distance & Range • Bokeh Radius Max • Impulse • Spread • Rotate & Rotate Speed • Gravity • Wind Direction • Wind Force • Wind Turbulence 	<ul style="list-style-type: none"> • Replace the Particle texture image to change out the bokeh shape for the blur effect. • You can adjust the viewing camera's Focus Distance, Focus Range and Bokeh Max Radius to customize the DOF effect and arrangement. • Focus Range : 1st slider - Distance from the in-focus to the out-of-focus plane. 2nd slider - Size of the fully-focused zone. 	
 <p>Dissolve Image</p>	<ul style="list-style-type: none"> • Dissolve Scale • Color Overlay 	<ul style="list-style-type: none"> • You can change out the emitter Image to render a different picture. • Re-enable Emit On to start another dissolve effect. • Some attributes require re-simulation for the changes to take effect such as Image Scale and Flux (shortcut: Shift-S). 	
 <p>Dissolve Mesh</p>	<ul style="list-style-type: none"> • Shading Intensity • Resolution • (Check Box) Ignore Dissolve Map • (Check Box) Reform After Melt • (Check Box) Use Melt Color • Melt Brightness • Fade In Time • Before Melt Time • Drop Speed • Melt Time • Reform Time • After Reform Time • Fade Out Time 	<ul style="list-style-type: none"> • Sample a static, skinned, or blendshaped mesh for the emitter shape. This sampled mesh will be used when this particle effect takes form. • Note: only source meshes with single UV sets can be sampled. • The Dissolve map is used to determine the regions of the mesh that can melt away. • Apply the diffuse map for the sampled mesh to the emitter's Diffuse texture so that when it takes form, it will also mimic the colors of the mesh textures. • Dissolve Mesh provides 7 states or phases (time measured in seconds): 1. Fade In Time is the transition between fully transparent to the textured particles. 2. Before Melt Time is the pause before the assembled particles begins to melt. 3. Drop Speed is the speed at which the particles melt and drop to the floor. 4. Melt Time is the duration at which the mesh remains melted. 5. Reform Time is the time it takes to go from completely melted to completely reconstituted. 6. After Reform Time is the pause before the reconstituted particles starts to fade. 7. Fade Out Time is the time it takes to transition from textured to transparent particles. 	

 <p>Music Ball</p>	<ul style="list-style-type: none"> • Spectrum Cutoff • Pitch Color (Lo/Mid/Hi) • Pict Threshold (Lo/Mid/Hi) • Scale Turbulence • Gravity 	<ul style="list-style-type: none"> • Follow the steps below to generate a Music Ball effect: <ol style="list-style-type: none"> 1. Sample the AudioSpectrum and click on the Popcorn Sound Sampler. 2. Drag in an audio file to the stage as background music or noise and click on Collect Scene Sound in the Project panel. 3. Alternatively, you can just directly load an audio file into the Project panel. • Sample a static, skinned, or blendshaped mesh to change the emitter shape. 	
 <p>Sand Paint</p>	<ul style="list-style-type: none"> • Brightness • Fall Threshold • Fall Speed • Fall Power • Image Color Ratio • Image Contrast 	<ul style="list-style-type: none"> • You can change out the Density Image to render a different picture. • If a static, skinned, or blendshaped mesh is sampled for the emitter shape then the particles will stick to the shape of the sampled mesh while basing their positioning on the Density Image in relation to the meshe's UV coordinates. 	
 <p>Timer</p>	<ul style="list-style-type: none"> • Initial Hour:Minute:Second • Start/Pause • Reset Time • Digit Power • Trail Depth • Trail Brightness • Show Hour • Show Millisecond 	<ul style="list-style-type: none"> • You can adjust the Inital Hour, Minute and Second to delay or quicken the start of the Timer. • You can turn on and off Hour and Millisecond. • Replace the texture image to change out the font style for the numbers. 	