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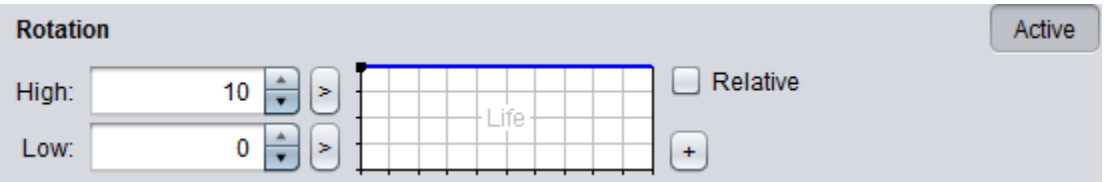
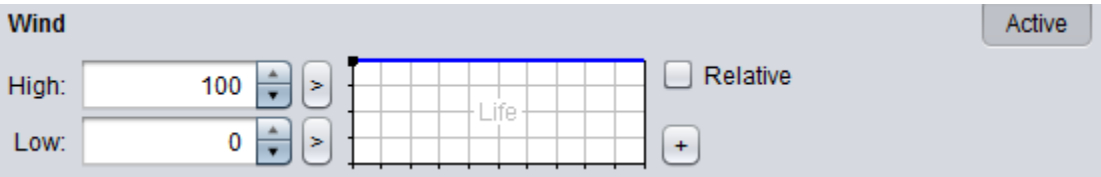
Documentation For the appParticleEditor
Part 4:

Emitter Properties:

1.) **Rotation**– The rotation property turns the particle about its center. The High input field turns the particle from a more vertical position to a horizontal one. Inputting a negative integer causes the particle to turn back (lean) to its left, until it is completely horizontal. A positive integer turns the particle to its right until it is completely horizontal. When an integer is put into the Low input field, whether it is negative or positive, the particle remains in an upright vertical position. There are no rotational effects with the Low input field. The graph determines what percentage of the particles will rotate over their lifespan duration.

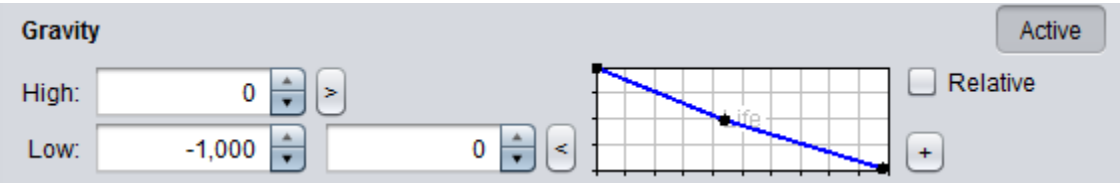


2.)**Wind**– This property simulates the effects of wind on a particle. The "Active" button activates these properties fields. The Low Input has no functionality, probably since wind is an increasing state. The High input field may be filled with any random number based on the value found in the High input field from the Life property. The larger the value gets the more the particles are dispersed over the Emitter. Values that are close to 0, don't disperse particles very far from one another, hence particles are more often found grouped with one another. The graph is used as an indicator for how many particles should be affected by the wind property during its life span.



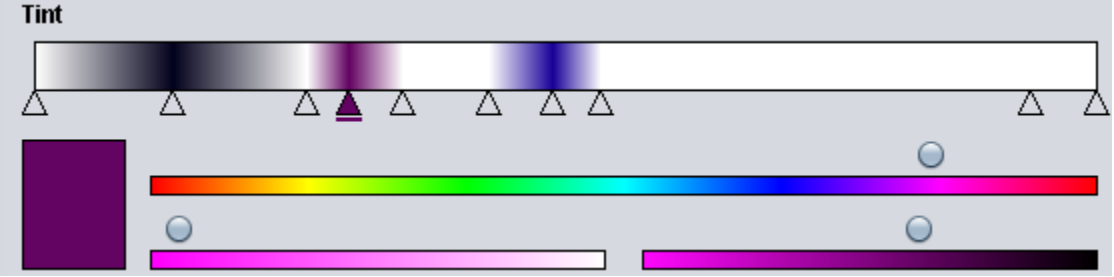
3.) **Gravity**– This property simulates the effects of actual gravity on a particle. It is activated when the "Active" button is clicked and parameters are put in for either the High or Low input fields. An arbitrarily large value for the *High* input results in particles being pushed or seemingly "floating" downward, when the value is positive. When the value for the *High* input is negative, particles seem to be pushed or float upward, simulating a lack of gravity. This float is caused by the High and Low inputs used for the Life property. The gravity input carries the particle closer to these coordinates simulating gravitational pull.

The Low Input seems to simulate the effects of extreme gravity on the particles.The particle remains at the low and doesn't move, as if it is weighed down. The graph is used to apply this gravity over a percent of the particle's lifespan.

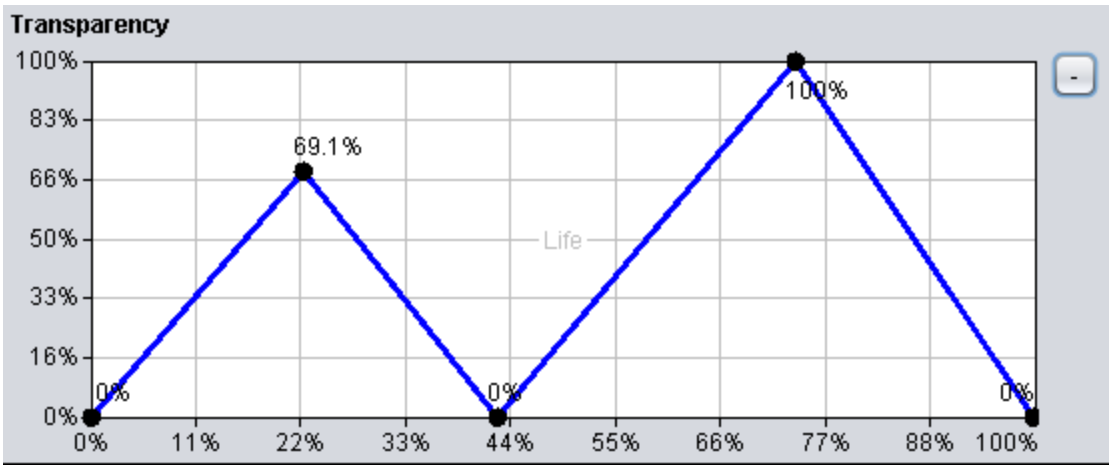


Note: The Rotation, Wind, and Gravity properties all work hand in hand with the Life property. There must be a referable value in the input fields for the Life property in order to get desired effects.

4.) **Tint** – Allows you to change the color your particle exhibits, not all particles are displayed in the chosen color. The "all white" spectrum seems to allow the user to place tick mark indicators and display different arrays of color at each one, similar to a test strip. Once a desired color is displayed you may choose to display it by choosing the corresponding indicator. The "rainbow-colored" spectrum provides the basis for choosing a particle color. There are two shorter spectrums that display a range of shades for the chosen color. The short spectrum on the left is used to create light shades for your chosen color and can be used to produce a white particle. The short spectrum on the right is used to produce bolder shades for your chosen color and can also be used to produce a particle that is black in color.



5.) **Transparency**- The ability of the particle to be seen through. Functionality is seemingly minimal when spawn shape is set to point; however, when spawn shape is set to line, ellipse, or square and combined with changes to spawn width or height, the effects are more noticeable. The particle becomes more "see-through". The relative line graph function below sets a standard for the level of transparency for a given percentage of particles that have been created. Therefore, allowing you to have a percent transparency of a percent of a particle lifespan.



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6.) **Options**– The Options tab provides several checkboxes for altering the behavior of particles.

A. Additive: Has no functionality.

B. Attached: This feature, when checked, gives particles the ability to move simultaneously, in the same direction when they come in contact with one another during particle lifespan. This gives the appearance of two connected particles moving together as one.

C. Continuous: This behavior allows for continuous creation and cycling of a particle through its lifespan, when checked. When unchecked, particles are created and cycle through their lifespan only once before they are terminated and disappear from the Emitter screen.

D. Aligned: This behavior allows particles position to remain unchanged when checked. Particles may lie horizontally, diagonally or vertically across the Emitter screen. When unchecked, particle positionmay begin horizontally, diagonally, etc. but after continuous lifespan cycling the particles will eventually all be vertically aligned in position.

E. Behind: Doesn't seem to function fully. I think this was intended to control the presence of overlapping particles. Particles continue to overlap when the *behind* feature is unchecked as well as checked. However, when this attribute is unchecked the presence of overlapping particles does seem to decrease.

Errors:

- Transparency is not compatible with a point spawn shape
- Additive option seemingly has no functionality