

# Particle Systems

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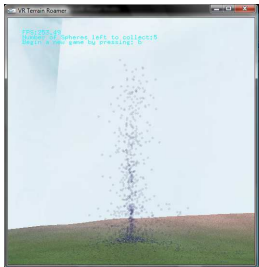
Particle Systems are used to simulate phenomena like fire, smoke, water, and more in real time. Particle Systems work by emitting particles, updating particle positions and then drawing the particles.

The different particle systems seen below have been created simply by altering the emitter of the particles and altering the “physics” working on the particles (when updating their positions)

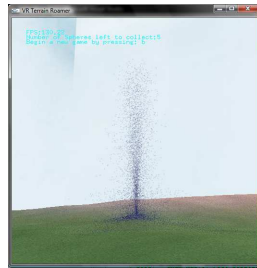
For a considerable drop in frame rate you do not necessary get an equal improvement in the appearance of the particle system:

Increasing the number of particles and decreasing their size has impact on frame rate as well as appearance:

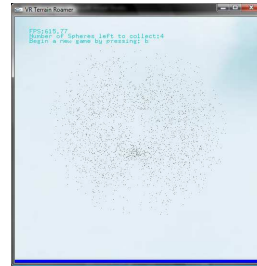
1000 Particles



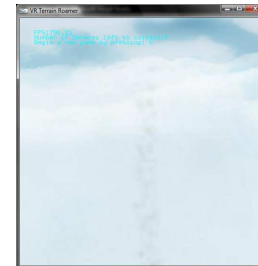
10000 Particles



10000 Particles



1000 Particles size 5



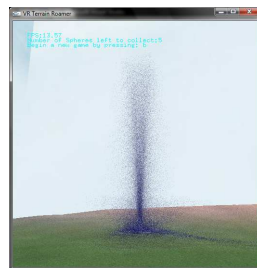
10000 Particles size 2



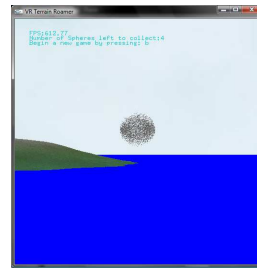
100000 Particles



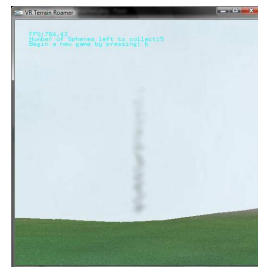
1000000 Particles



10000 Particles



1000 Particles size 5



10000 Particles size 2

