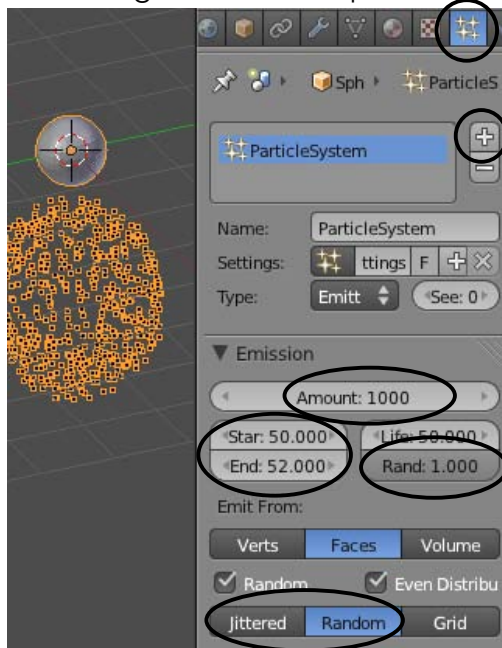


Chapter 13- Particle Systems and Interactions

The **Force Field Settings** panel allows you to add additional features to your particle system. Features like Drag, Turbulence, Wind, Vortex, etc. can be added and animated.

A Simple Particle Explosion (Fireworks):

Let's take some time to set up a simple particle explosion for practice using particle settings. Start with a new Blender scene, erase the initial *Cube*, then add a *UV Sphere*. Scale the sphere down to about ½ its original size. In the *Properties* window, add a *Particle System* for the sphere. Press "Alt-A" to see the animated particles. You should see particles dropping off the sphere (spin your view to see the effects). Press "Esc" to exit the animation and use your arrow keys to move up in time to about frame 30. You should see something like the example below:



The particles are dropping because the gravity is set by default. We now need to make some changes to resemble a firework. First, start in the *Emission* panel and change the total *Amount* to about 300. No need for 1000 particles for a firework. Next, since a firework explodes over a short period of time, we need to change the *Start* and *End* frames to something much less. Try a *Start of 50* and an *End of 52*. This will cause all 300 particles to be released in 2 frames. Since firework particles die randomly, keep the Life at 50, but change the *Random* to full (1.000). Finally, change the Emit option from *Jittered* to *Random* to make the release of particles more random. Test it out with "Alt-A". The particles still drop so it's time to look at some other settings.

Next, in the *Velocity* panel, change the *Normal* setting to a much higher number, like 4.00. This will blast the particles outward. The gravity still pulls them



downward a bit to much, so we'll fix that next. Go down to the *Field Weights* panel and set *Gravity* to about 0.40. Feel free to experiment with these setting for different effects.

