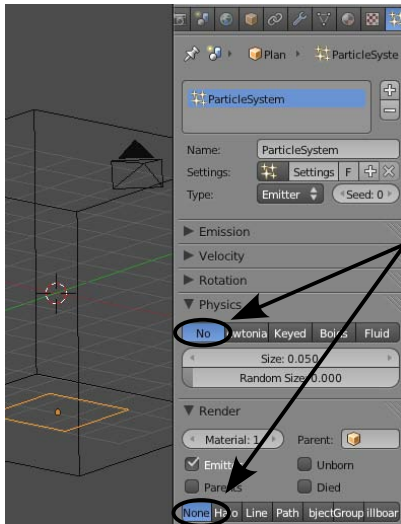
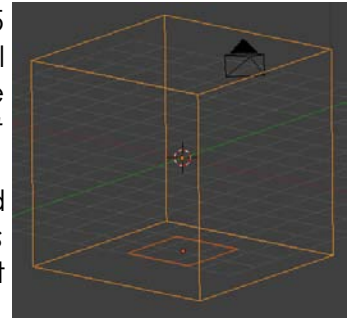


Creating Volume Smoke

Volume smoke physics is new for the 2.5 series and still needs a lot of work. With that being said, it is still worth an introductory discussion in this edition. You can find some nice tutorials and sample videos on the internet and the feature will probably be updated before anyone gets to this chapter of the book, but here it is:

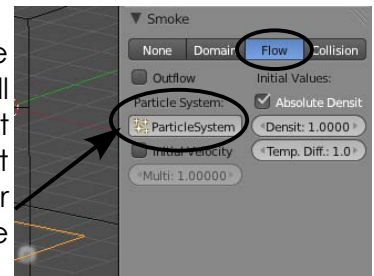
Volumetric smoke works similar to fluids where you create a Domain and an Emitter (Flow). In order to generate the smoke particles, you also need to add a Particle system and add materials and textures.

To start, we'll set up a new scene with a cube scaled to about 5 times the original size. Remember, all smoke that is created will not extend beyond the cube domain so it needs to be large enough for your scene. *It has also been recommended that you do not go into Edit mode and alter the vertices of the cube because of calculation issues.* Next add a Plane and place it to the bottom of the cube as the Flow. Make sure it is completely inside the cube! Any mesh will work for the flow, but we'll work with a plane for now.



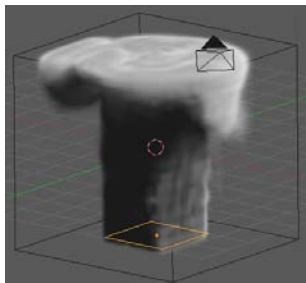
Let's now add a Particle System to the Plane. The reason for this is that the smoke is generated from the particles- not the plane. With the Plane selected, go to the Particles panel and add a Particle System. Since we want the particles to sit still and not move (just need them to emit smoke), we will turn off the Physics. Also, we won't need to see the actual particles, so turn off the Render visualization.

Time to work on the smoke physics. With the plane still selected, add Smoke Physics to it in the Physics panel and select "Flow". You will see a block for Particle Systems. Select the



system you made if not already selected.

Now select the cube and enable Smoke Physics for it. Choose "Domain" for its property option. We're now



ready to take a look at our results by pressing "Alt-A". It will probably run through slowly, but you should see building smoke in the viewport window. If you try to render a picture at this point, all you will see is the cube and not the smoke. We'll fix that next.

