

Homework 1: Part D



A cool effect I noticed in a video game were the explosions in Far Cry 4. They look very realistic and change depending on what's exploding and how it exploded. They don't just happen and then they're over, instead they leave debris and change the area around them.

The explosions themselves were probably created using particles mixed with a glow effect. Where the effect meets the ground, it creates a particle cloud to simulate dust that was kicked up off the ground. The main explosion part is a mixture of particles and a glow effect. Depending on what explodes, the fireball turns into smoke or just dissipates.

But the more complicated part is how it effects the object. It doesn't just stay the same and become a little charred, the explosion actually changes its shape, position, and/or appearance. I think this is done by creating an object in the scene with separate parts, like puzzle pieces. So since each object is made up of separate pieces of geometry, each piece can separate from one another and react differently. So I don't think the effect changes the geometry, rather it updates its position and texture.

Beyond the explosion itself, there isn't that much that is affected. If another object is right next to it, it might catch on fire or become charred. The explosion does seem to create some light, but it only effects other objects right next to the original effect. So the explosion is realistic, but its effect on the world around it isn't as effected as it should be.