

# PARTICLE SYSTEM – ROCKET

## LAUNCH - XNA

I have implemented particle system in **XNA**. Scene consists of a heightmapped terrain, rocket launching stand, huge rocket. Rocket has 3 particle emitters and each of them generate 500 particles by default. These emitted particles perform a collision detection with the terrain floor and they move along the terrain instead of passing through the terrain.

- Rocket is launched by pressing **Space Bar**
- Rocket can be moved back to earth by pressing **Back Space**

Fire sprites are generated by the rocket emitters. Rocket can be controlled by the following keys

Totally there are 4 emitters

- **EMITTER 1** – center exhaust of the rocket

Selection – Key = “1”

- **EMITTER 2** – Left exhaust of the rocket

Selection – Key = “2”

- **EMITTER 3** – Right exhaust of the rocket

Selection – Key = “3”

- **EMITTER 4** – Particle water sprite fountain

Selection – Key = “4”

Once any of the emitters are selected, then following are the controls for changing the particles behavior.

### Particle Lifetime Controls:

**Page Up Button** : Increase the lifetime of the particles

**Page Down Button** : Decrease the lifetime of the particles

**Particle velocity Controls:**

**Tab Button :** Increase the velocity of the particles emitted

**Caps Lock :** Decrease the velocity of the particles emitted

**Particle emission angle controls:**

**Home Button:** Increase the angle of emission of the particles

**End Button:** Decrease the angle of emission of the particles

Playing with the above controls along with the look and feel of the real fire life particle effect is really fun.

