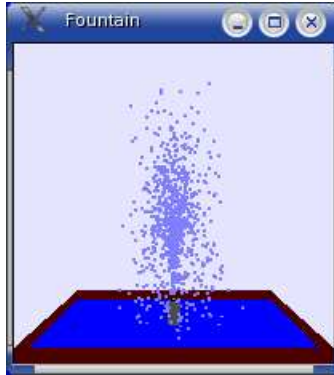


CSci 490, Spring 2005, Assignment 7

This assignment, worth 40 points, is due at 3pm, Friday, April 29. Submit it by attaching your modified files to an e-mail to cburch@cburch.com.

From the Web page, you can download a simple OpenGL program that uses a particle system to draw a fountain.



Your job is to add enhancements to the program; exactly which enhancements you are free to choose. You can feel free to modify either the `main.c` or `particle.c` files. Examples of possible enhancements include the following.

- Making the fountain periodically start and stop for a more interesting effect.
- Drawing each particle with a blur effect, with line between its previous position and its current position.
- Changing the color of each particle during its lifetime, from a light blue to a bluish white. The result should appear more realistic.
- Incorporating a wind factor to blow the plume to the side. Ideally, this would include gusts of sustained wind in the same direction.
- Having each particle bounce once it hits the water surface.
- Simulate a splash effect by creating a variety of new particles with very low velocity once a particle first hits the water.
- Including an object that interferes with particles' movement. This object might move in and out of the plume.
- (This is hard.) Having each particle collide with others.

You could certainly do several of these together; and you need not restrict yourself to the above list. Be creative!

In grading, I will judge the complexity of your work and the quality of your program (85% of the grade), as well as the impressiveness and creativity of your animation (15%).