Final Project Report

User Manual

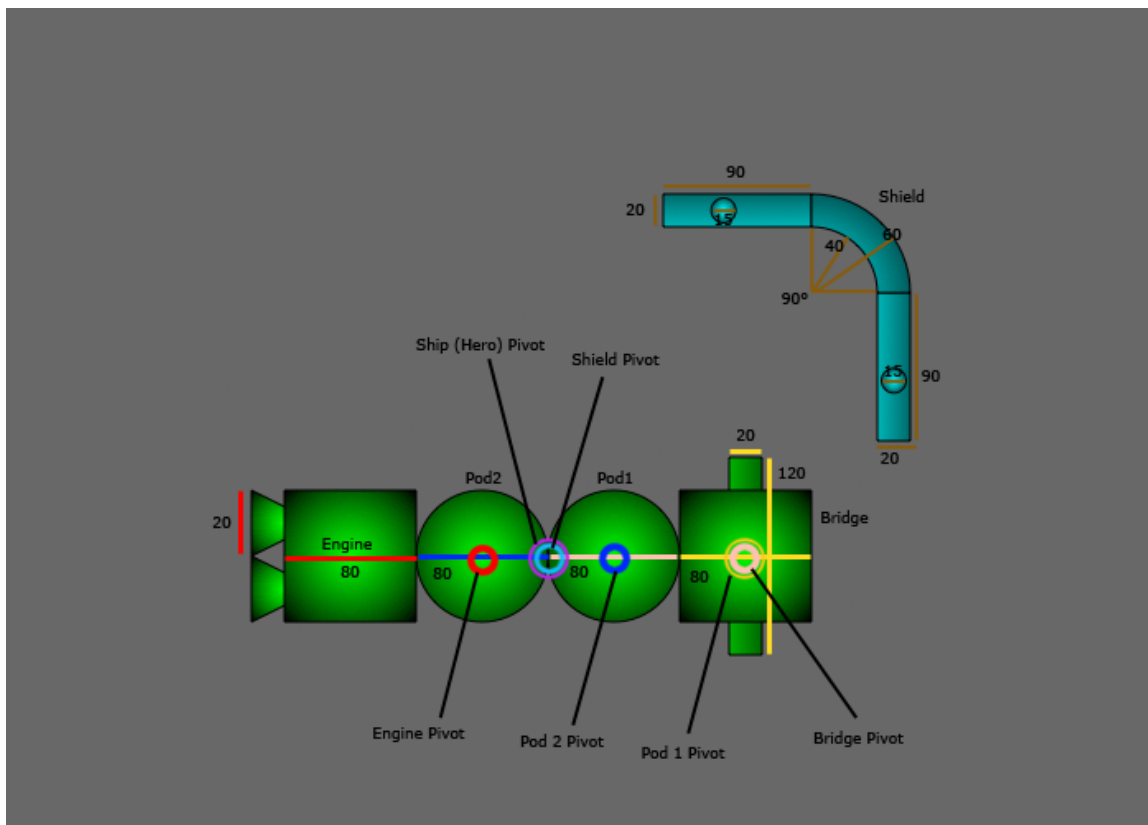Follows the same specifications for MP5. See:
http://courses.washington.edu/css450/2010.Fall/mp/mp5/mp5.htm
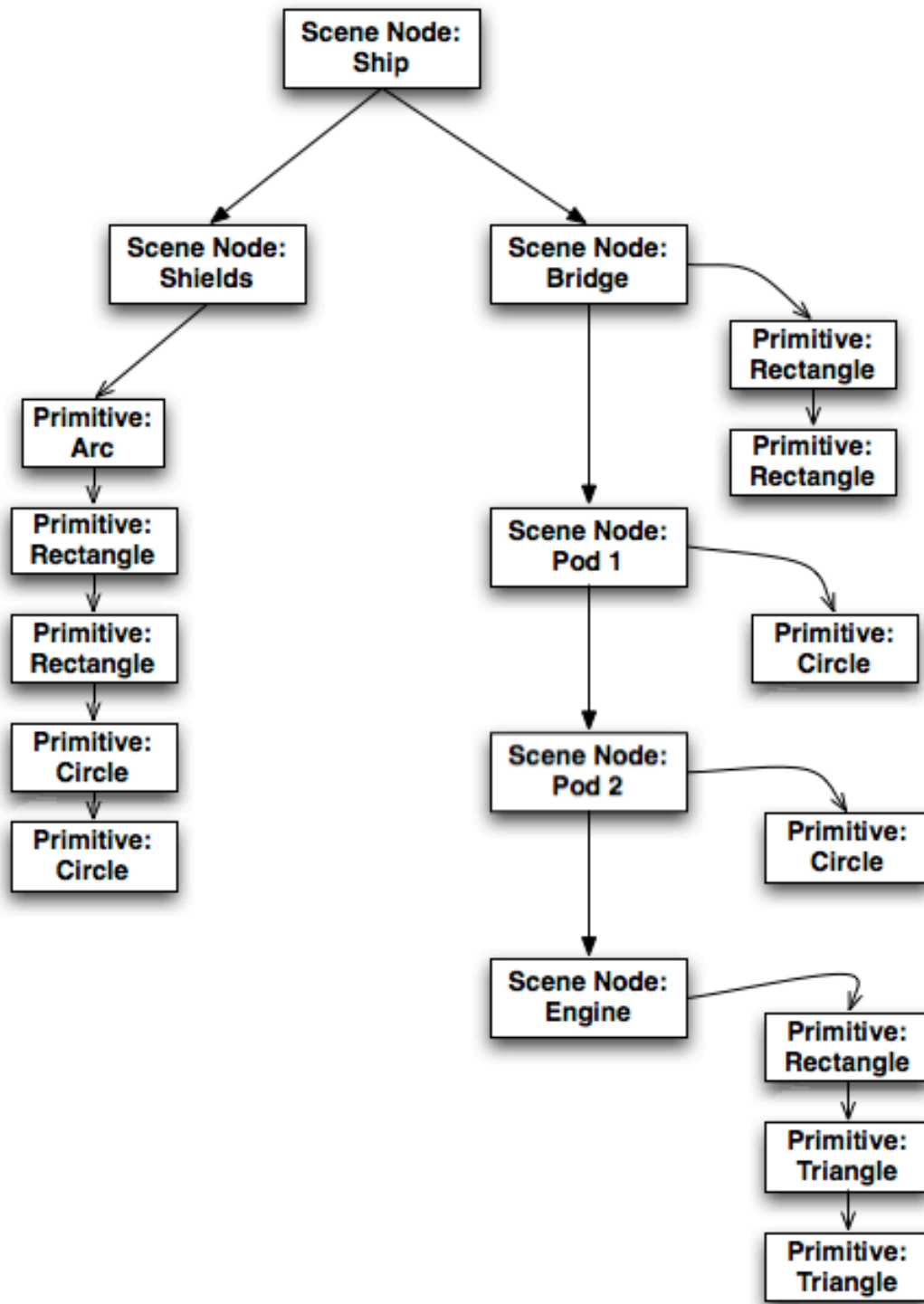
Also has the addition of being able to show the bound volumes for the primitives of a sceneNode or the transformed bound box for the entire node. The camera cannot be resized beyond the scope of the world window (it will stop at the edges when moving or resizing).

You must select a scene node when the application launches, by default, no node is selected.

Design

Hierarchy

```
                        Scene Node:
                           Ship
                         /       \
                        /         \
          Scene Node:              Scene Node:  ──→  Primitive:
            Shields                  Bridge              Rectangle
               |                        |                   |
               ↓                        ↓                   ↓
          Primitive:              Scene Node:  ──→  Primitive:
             Arc                     Pod 1               Rectangle
               |                        |
               ↓                        ↓
          Primitive:              Scene Node:  ──→  Primitive:
           Rectangle                 Pod 2               Circle
               |                        |
               ↓                        ↓
          Primitive:              Scene Node:  ──→  Primitive:
           Rectangle                Engine              Circle
               |                        |
               ↓                        ↓
          Primitive:              Primitive:
            Circle                  Rectangle
               |                        |
               ↓                        ↓
          Primitive:              Primitive:
            Circle                  Triangle
                                        |
                                        ↓
                                   Primitive:
                                     Triangle
```

Limitations

- No short animation on collision with moving circles as required
- Graphical clipping errors when moving the rectangles (not squares) over the menu bar & other window

Possible Features

- Rotate with mouse
- Blending support
- Change projectiles to asteroid sprites
- Textures for space ship
- Move individual scene nodes with mouse by holding control