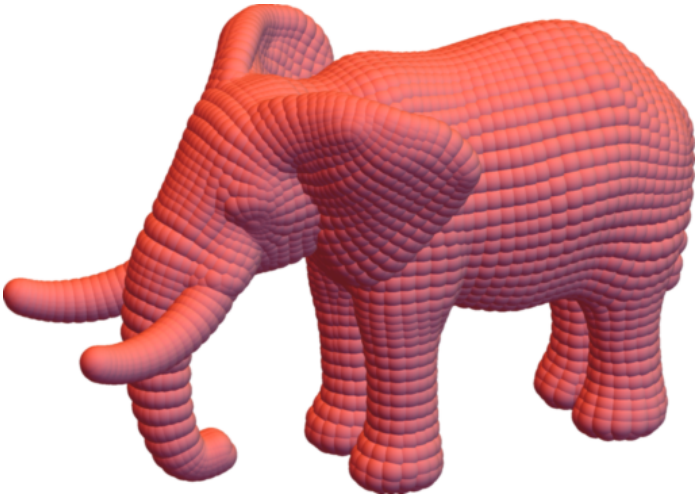
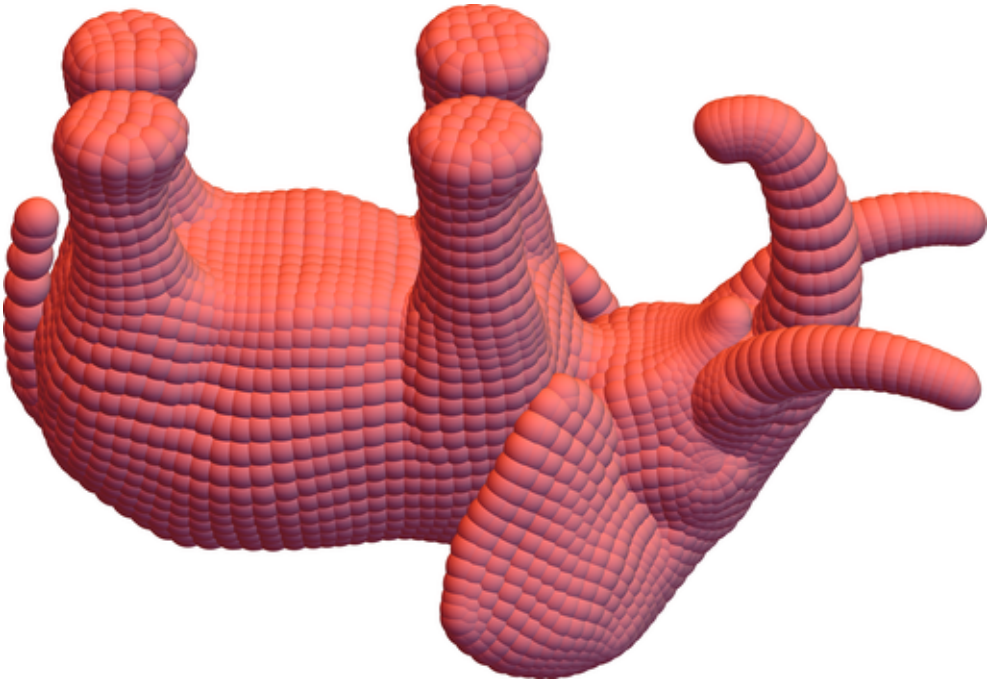
Pensieve header: Slicing the elephant from http://www.blendswap.com/blends/view/18009.

```
SetDirectory["C:\\drorbn\\AcademicPensieve\\2013-04\\Elephant"];
vs = Get["ElephentVertices.m"];

MakeImage["PinkElephant",
 Graphics3D[{Pink, Sphere[#, 0.1] & /@ vs},
  Boxed → False, ViewPoint → {10, -5, 5}]
]
```



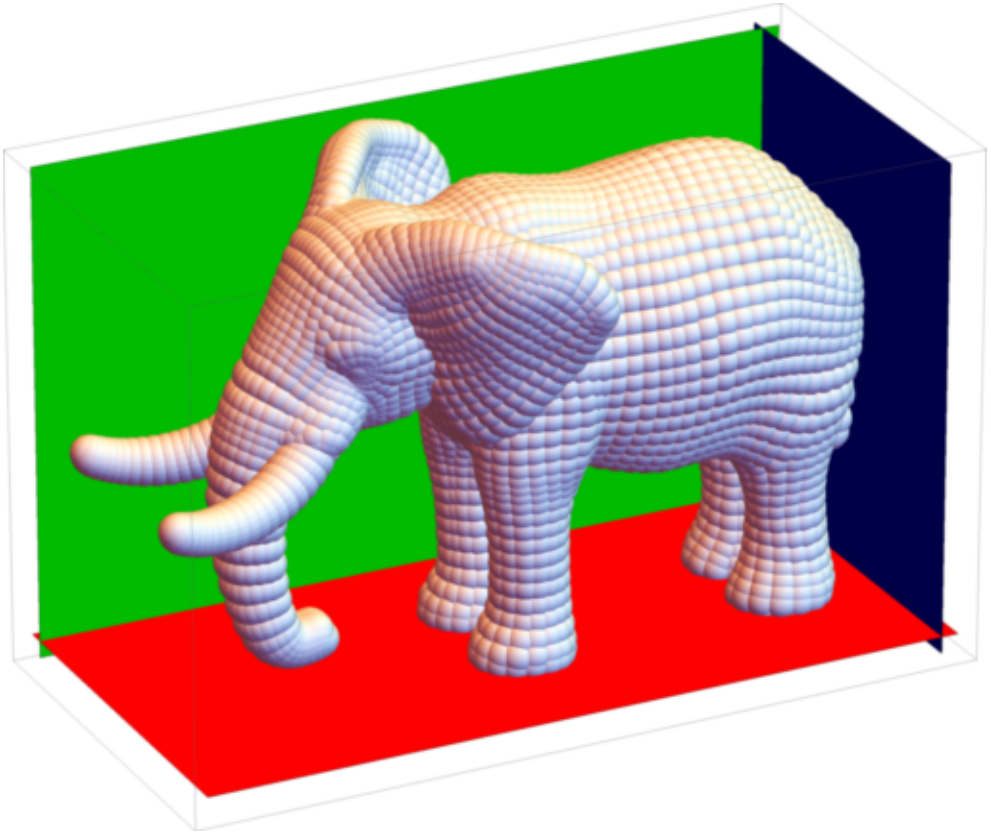
```
MakeImage["RoachedElephant",
 Graphics3D[{Pink, Sphere[#, 0.1] & /@ vs},
  Boxed → False, ViewPoint → {9.04268, -0.78336, -8.22291},
  ViewVertical → {-1.83879, 0.0322299, -0.62669}]
]
```



```
{{x0, y0, z0}, {x1, y1, z1}} = {Min /@ Transpose[vs] - 0.1, Max /@ Transpose[vs] + 0.1}
```

```
{{-1.13688, -2.55196, -1.47261}, {1.13688, 2.01604, 1.45422}}
```

```
True && MakeImage["BubbledElephant",
  Graphics3D[{
     Sphere[#, 0.1] & /@ vs,
     Red, Polygon[{{x0, y0, zz}, {x0, y1, zz}, {x1, y1, zz}, {x1, y0, zz}}],
     Green, Polygon[{{xx, y0, z0}, {xx, y0, z1}, {xx, y1, z1}, {xx, y1, z0}}],
     Blue, Polygon[{{x0, yy, z0}, {x0, yy, z1}, {x1, yy, z1}, {x1, yy, z0}}]
    }, ViewPoint → {10, -5, 5}] /. {xx → x0 + 0.1, yy → y1 - 0.1, zz → z0 + 0.1}
 ]
```



```
False && Manipulate[
  Graphics3D[{
    Sphere[#, 0.1] & /@ vs,
    Red, Polygon[{{x0, y0, zz}, {x0, y1, zz}, {x1, y1, zz}, {x1, y0, zz}}],
    Green, Polygon[{{xx, y0, z0}, {xx, y0, z1}, {xx, y1, z1}, {xx, y1, z0}}],
    Blue, Polygon[{{x0, yy, z0}, {x0, yy, z1}, {x1, yy, z1}, {x1, yy, z0}}]
   }, ViewPoint → {10, 0, 5}],
  {{xx, x0 + 0.1}, x0, x1}, {{yy, y0 + 0.1}, y0, y1}, {{zz, z0 + 0.1}, z0, z1}
 ]
```

```
False
```

```
Manipulate[
 Graphics[{Red,
   Select[vs, Abs[#[[3]] - zz] < 0.1 &] /.
    {x_, y_, z_} :> Disk[{-y, x}, Sqrt[0.1^2 - (z - zz)^2]]},
  PlotRange -> {{-2.1, 2.6}, {-1.2, 1.2}}
 ],
 {{zz, 0}, -1.5, 1.5}
]
```

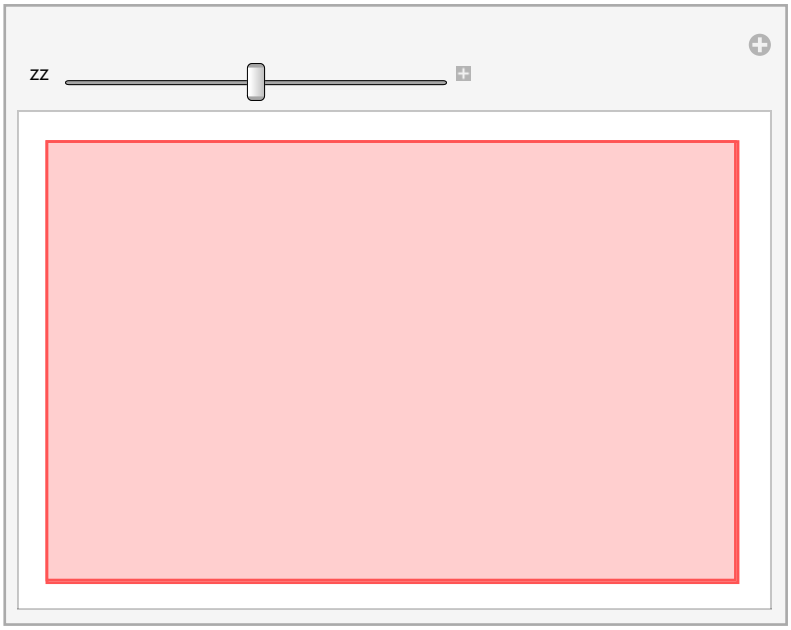
Select::normal : Nonatomic expression expected at position 1 in Select[vs, Abs[#1[[3]] – FE`zz$$15] < 0.1 &]. >>

Select::normal : Nonatomic expression expected at position 1 in Select[vs, Abs[#1[[3]] – FE`zz$$15] < 0.1 &]. >>

```
k = 1000;
False && Do[
  Export[
   "z-" <> ToString[++k] <> ".png",
   Graphics[{Red,
     Select[vs, Abs[#[[3]] - zz] < 0.1 &] /.
      {x_, y_, z_} :> Disk[{-y, x}, Sqrt[0.1^2 - (z - zz)^2]]},
    PlotRange -> {{-2.1, 2.6}, {-1.2, 1.2}}
   ]
  ], {zz, -1.5, 1.5, 0.1}]
```

```
False
```

```
vs2 = RotateLeft /@ vs;
Manipulate[
 Graphics[{Green,
   Select[vs2, Abs[#[[3]] - zz] < 0.1 &] /.
    {x_, y_, z_} :> Disk[{-x, y}, Sqrt[0.1^2 - (z - zz)^2]]},
  PlotRange -> {{-2.1, 2.6}, {-1.5, 1.5}}
 ],
 {{zz, 0}, -1.2, 1.2}
]
```

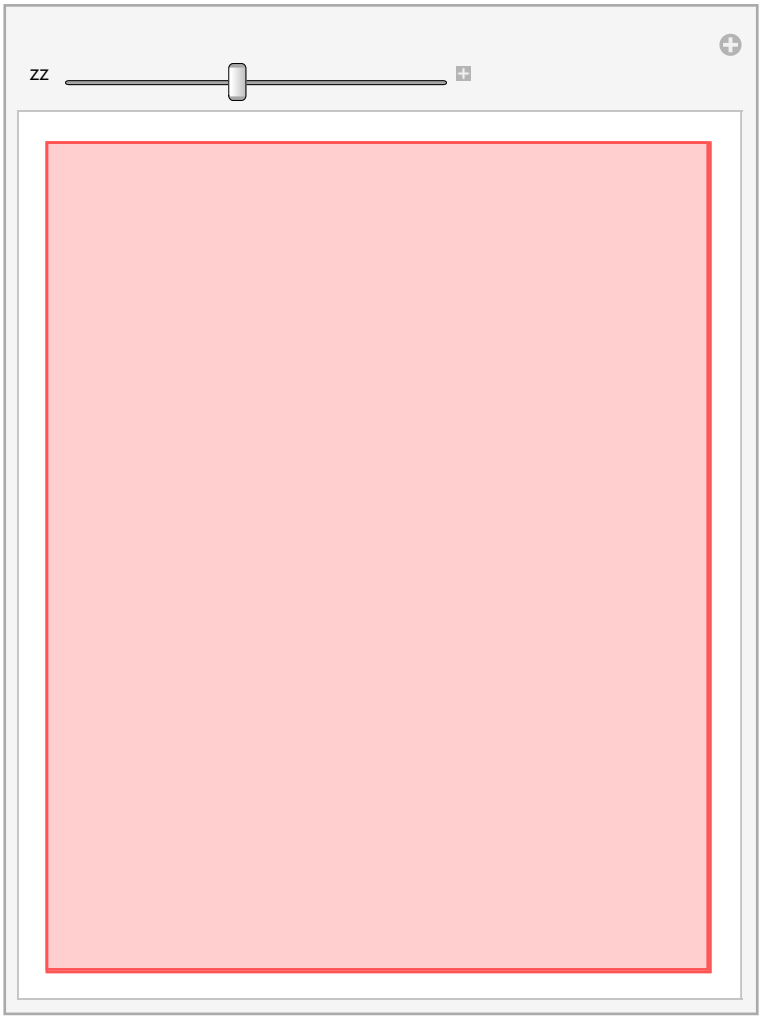


Select::normal : Nonatomic expression expected at position 1 in Select[vs2, Abs[#1[[3]] – FE`zz$$17] < 0.1 &]. >>

```
k = 1000;
False && Do[
  Export[
   "x-" <> ToString[++k] <> ".png",
   Graphics[{Green,
     Select[vs2, Abs[#[[3]] - zz] < 0.1 &] /.
      {x_, y_, z_} :> Disk[{-x, y}, Sqrt[0.1^2 - (z - zz)^2]]},
    PlotRange -> {{-2.1, 2.6}, {-1.5, 1.5}}
   ]
  ], {zz, -1.2, 1.2, 0.1}]
```

```
False
```

```
vs3 = RotateRight /@ vs;
Manipulate[
 Graphics[{Blue,
   Select[vs3, Abs[#[[3]] - zz] < 0.1 &] /.
    {x_, y_, z_} :> Disk[{y, x}, Sqrt[0.1^2 - (z - zz)^2]]},
  PlotRange -> {{-1.2, 1.2}, {-1.5, 1.5}}
 ],
 {{zz, 0}, 2.1, -2.6}
]
```



Select::normal : Nonatomic expression expected at position 1 in Select[vs3, Abs[#1[[3]] – FE`zz$$19] < 0.1 &]. >>

```
k = 1000;
False && Do[
  Export[
   "y-" <> ToString[++k] <> ".png",
   Graphics[{Blue,
     Select[vs3, Abs[#[[3]] - zz] < 0.1 &] /.
      {x_, y_, z_} :> Disk[{y, x}, Sqrt[0.1^2 - (z - zz)^2]]},
    PlotRange → {{-1.2, 1.2}, {-1.5, 1.5}}
   ]
  ], {zz, 2.1, -2.6, -0.1}]
```

```
False
```