Chinese Biscuit

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Yibing Chen (Cookie)
Haoyu Qin (Sonny)

Team

A good project is inseparable from a good team.

Team Member-Round

Zhuohao Chen(Cisco)

Modeling, Preparation work for shading

Dishi Yuan(Jolute)

Plate Modeling, Shading

Yibing Chen(Cookie)

Animation

Haoyu Qin(Sonny)

HTML

Introduction

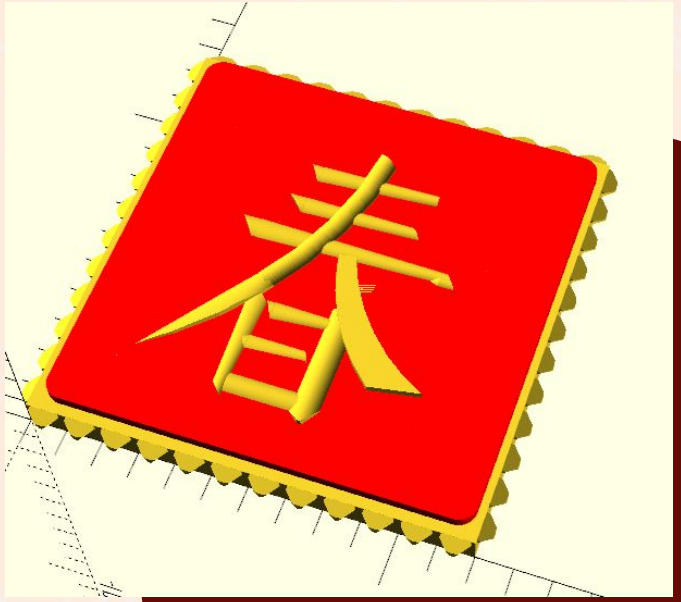
Our biscuit is inspired by the picture on the left. It is full of the festive atmosphere of the Spring Festival and is composed of biscuit layers, cream layers, and text layers.

Table of contents

01

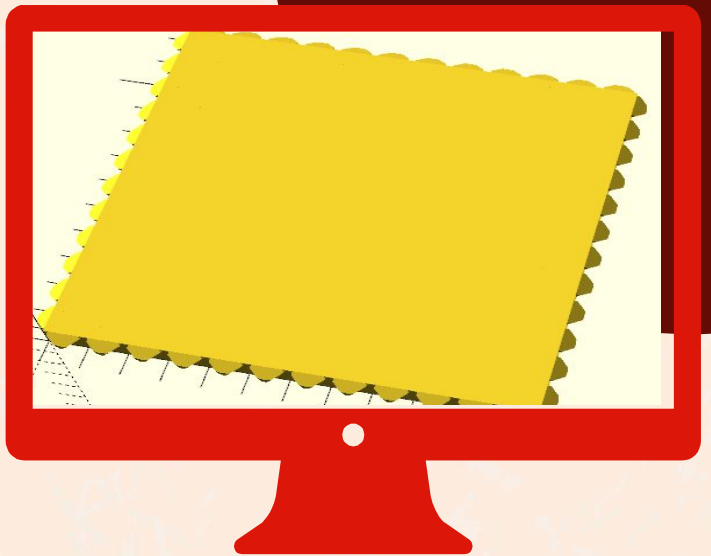
Modeling

how to make a biscuit with the word “Chun” using OpenSCAD.

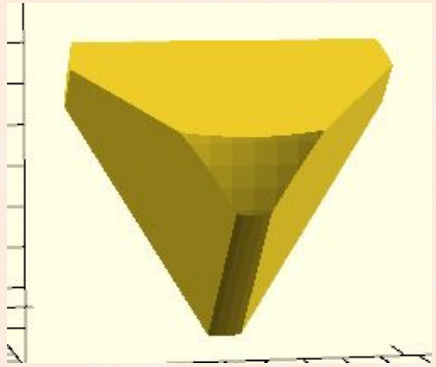


Biscuit Layers

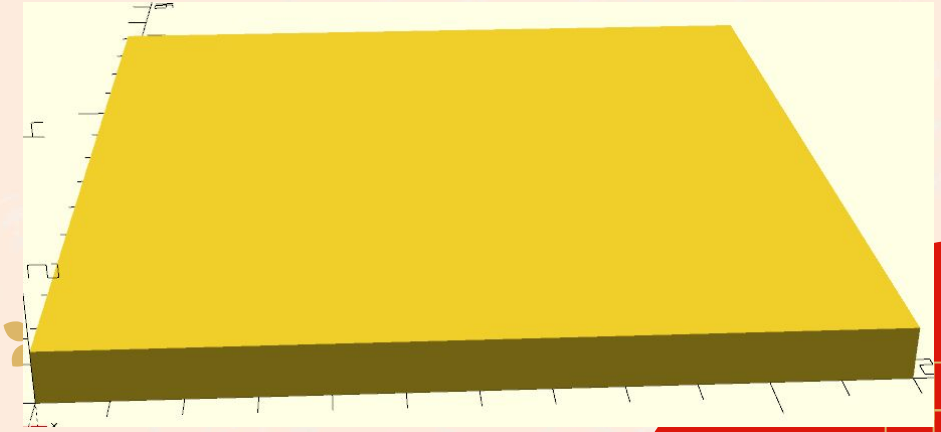
The cookie layer is made up of a square base and many cookie cones



Biscuit Cone



Bitcuit Body



```
module Interlayer(){

    translate([0.8,0.8,0.8])
    color(c=[1,0,0,1])

    minkowski()
    {
      cube([cookieLength-1.5,cookieLength-1.5,0.3]);
      cylinder(r=0.5,h=0.01);
    }
}
```

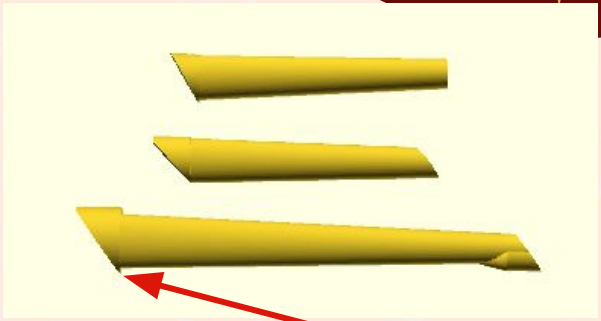
the biscuit’s middle layer

text layers

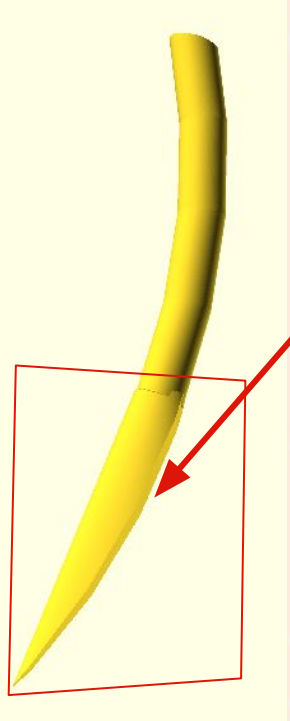
The text layer is composed of the Chinese character ‘春’

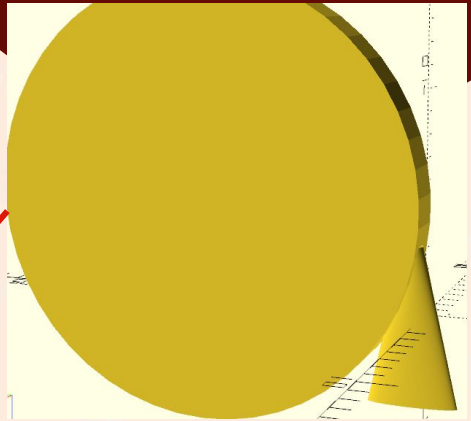
Reference

The design of the character ‘春’ was inspired by the ‘春’ character of Yan Zhenqing, a great calligrapher in ancient times

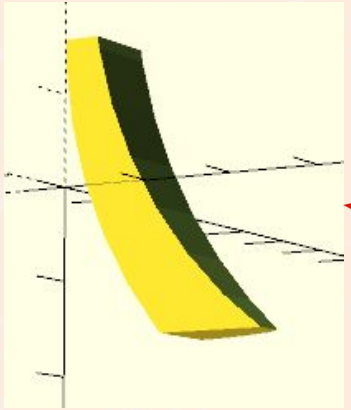


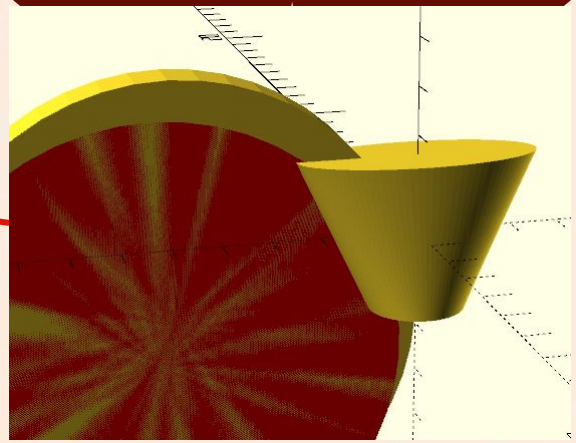
The horizontal stroke in Chinese characters, pronounced as ‘Heng’





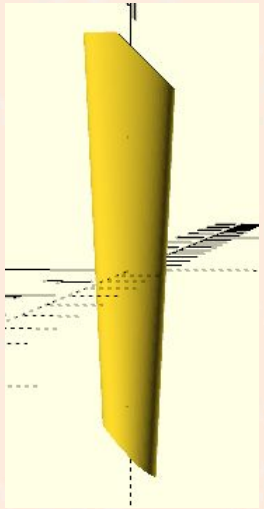
The left-falling stroke in Chinese characters, pronounced as ‘Pie’



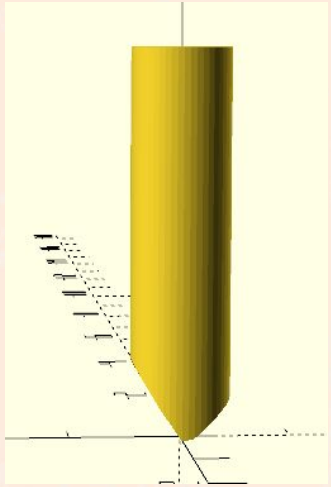


The right-falling stroke in Chinese characters, pronounced as ‘Na’

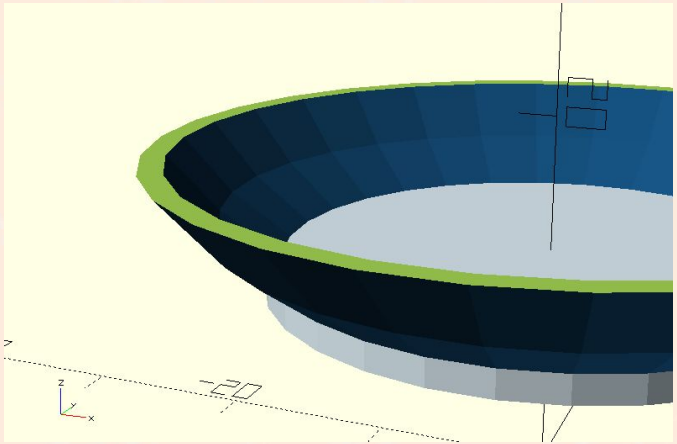
The vertical stroke in Chinese characters, pronounced as ‘Shu’

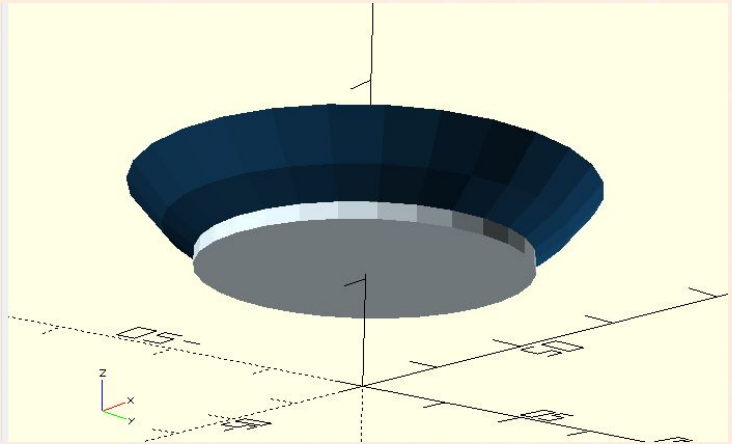


The horizontal turning



Modeling-Plate





Modeling-Plate

BigPlate.scad* - OpenSCAD

文件(F) 编辑(E) 模型(D) 视图(V) Window 帮助(H)

编辑器

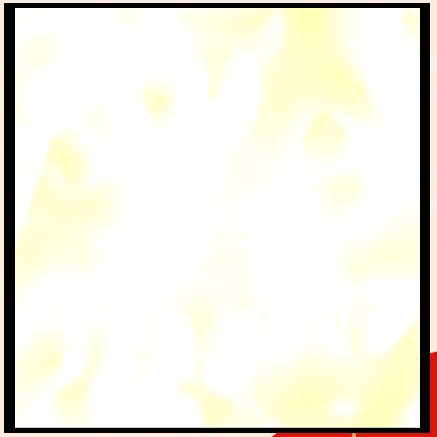
```
difference()
{
    translate([0,0,35])
    {
    difference()
        {
        color([20/255,74/255,116/255],alpha=1)sphere(28);
        color(c=[20/255,74/255,116/255],alpha=1) sphere(27);
        translate([-50,-50,-17])
            {
            cube(100);
            }
        }
    }
        translate([-30,-30,2])
    {
        cube([60,60,10]);
    }
}
translate([0,0,11.5])
{
color([208/255,223/255,230/255],alpha=1)
    cylinder(h=2,r=15.7,center=true);
}
```

02

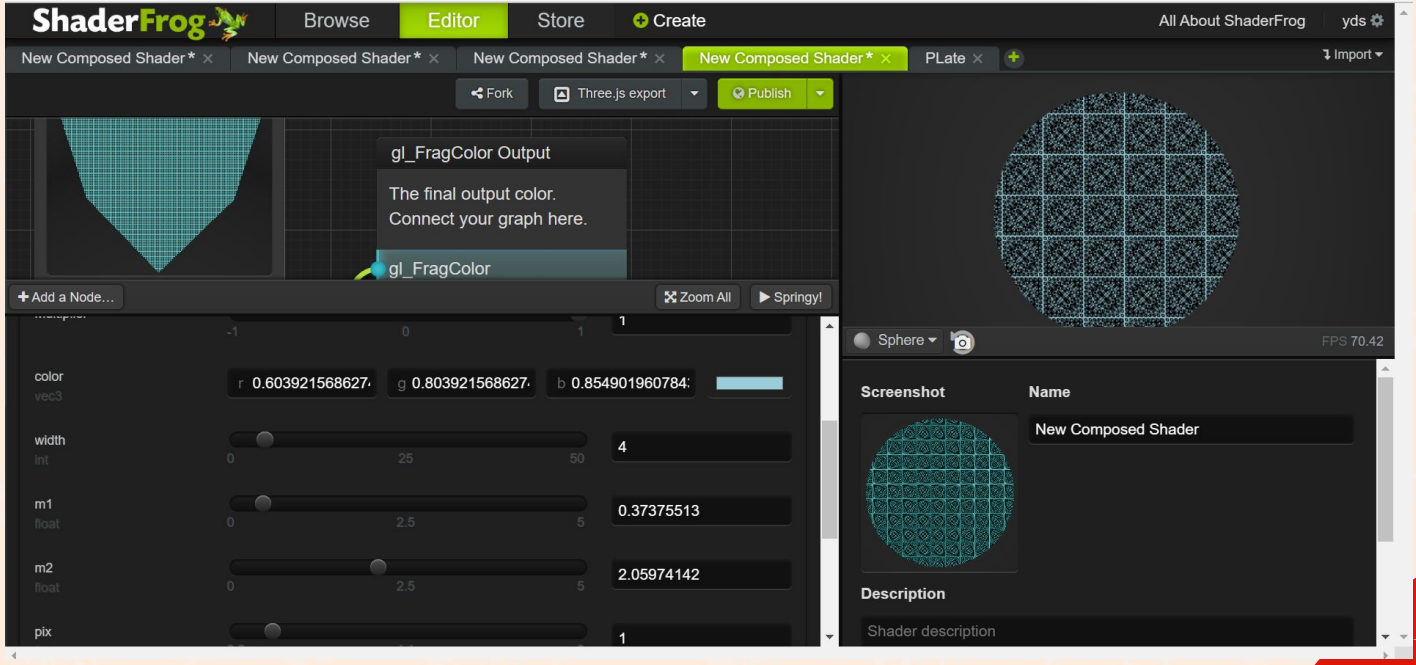
Shading

Shading

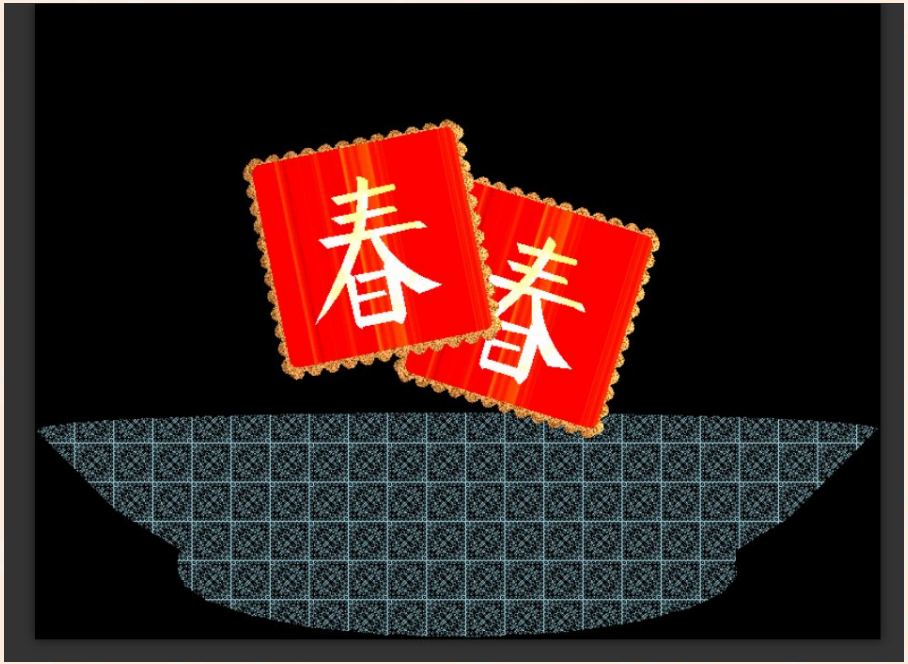
ShaderFrog



Shading


ShaderFrog
Browse
Editor
Store
Create
All About ShaderFrog
yds
New Composed Shader*
New Composed Shader*
New Composed Shader*
New Composed Shader*
PLate
Import
Fork
Three.js export
Publish
gl_FragColor Output
The final output color.
Connect your graph here.
gl_FragColor
Add a Node...
Zoom All
Springy!
color
vec3
r 0.603921568627
g 0.803921568627
b 0.854901960784
width
int
4
m1
float
0.37375513
m2
float
2.05974142
pix
1
Sphere
FPS 70.42
Screenshot
Name
New Composed Shader
Description
Shader description

Shading



03

Animation

Animate the biscuit with three.js

```
function animate() {
    requestAnimationFrame( animate );

    const mesh2 = scene.getObjectByName('bottom');
    //write the reference of the object
    //since all of the object's part are on the same position,
    //we can just call one of them, then we chose the bottom part of the object

    const cameraX = Math.sin(Date.now()*0.0008)*65;
    //asking the camera on the X-coordinate make the circling motion
    const cameraZ = Math.cos(Date.now()*0.0008)*65;
    //asking the camera on the Z-coordinate make the circling motion

    camera.position.set(mesh2.position.x + cameraX, mesh2.position.y, mesh2.position.z + cameraZ);
    camera.lookAt(mesh2.position);
    //keep the camera always stick with the object
    camera.position.y += 1;
    //since the camera is a little bit lower than the object, so we move it up by adding 1 in Y-coordinate
    render();

}
```


春
春


春

04

HTML

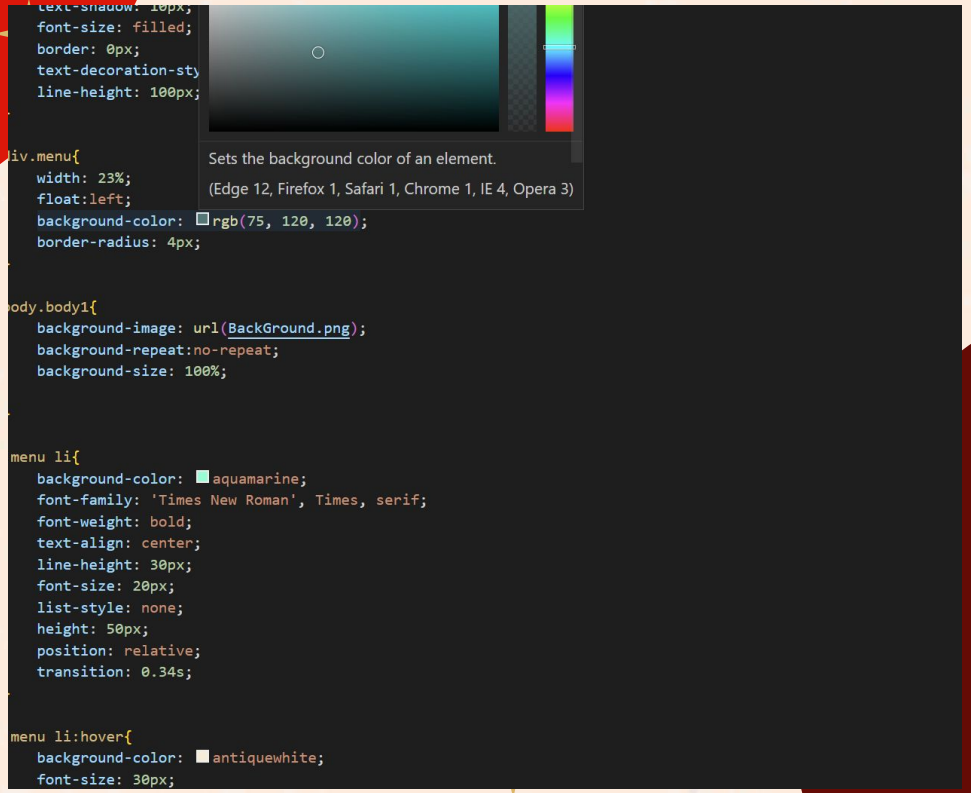
```
tml lang="en">
ead>
itle>Project show</title>
eta charset="utf-8">
eta name="viewport" content="width=device-width, initial-scale=1">
ink rel="stylesheet" href="mainTemplate.css">
/head>
ody class="body1" onload="changeImageSystem()">
  <script type="text/JavaScript" src="scriptformainpage.js"></script>
  <div class="header">
      <h1>Project Showcase</h1>
  </div>
  <div class="menu">
      <ul>
          <h3>Menu</h3>
          <a href="About Us.html"><li>About Us</li></a>
          <a href="http://localhost:8000/Mysf/"><li>Project</li></a>
          <li>Code</li>
          <a href="AnimationVideo.html"><li>Video</li></a>
          <li>Presentation</li>
      </ul>
  </div>

  <div class="MainContent" id="workingImage">
```

```
const sleep = (delay) => new Promise((resolve) => setTimeout(resolve, delay))

async function changeImageSystem(){
    images=new Array('image3.png','image4.png','image1.jpg','image2.jpg','image3.jpg');
    imageLen=5;
    count=imageLen-1;
    //changeImage(images[count]);
    for(;;)
    {

        count--;
        if(count<0)
        {
            count=imageLen-1;
        }
        changeImage(images[count]);
        await sleep(5000);
    }
}
function changeImage(imageName)
{
    var x=document.getElementById('workingImage').style;
    var name="url('"+imageName+"')"
    x.backgroundImage=name;
    x.backgroundRepeat="no-repeat";
}
```


font-size: filled;
border: 0px;
text-decoration-sty
line-height: 100px;
iv.menu{
width: 23%;
float:left;
background-color: rgb(75, 120, 120);
border-radius: 4px;
ody.body1{
background-image: url(BackGround.png);
background-repeat:no-repeat;
background-size: 100%;
menu li{
background-color: aquamarine;
font-family: 'Times New Roman', Times, serif;
font-weight: bold;
text-align: center;
line-height: 30px;
font-size: 20px;
list-style: none;
height: 50px;
position: relative;
transition: 0.34s;
menu li:hover{
background-color: antiquewhite;
font-size: 30px;
Sets the background color of an element.
(Edge 12, Firefox 1, Safari 1, Chrome 1, IE 4, Opera 3)

Thanks!

Any questions?

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