

# H5互动的正确打开方式

Mobile Taobao

渚薰

GM Lab Presents

# 我的团队-虚拟互动实验室





# 我的爱好-996乐队



( ? ) 互动 ( ? ) ?

“交互，是链接用户的桥梁”

User

Biang! UI

Interaction





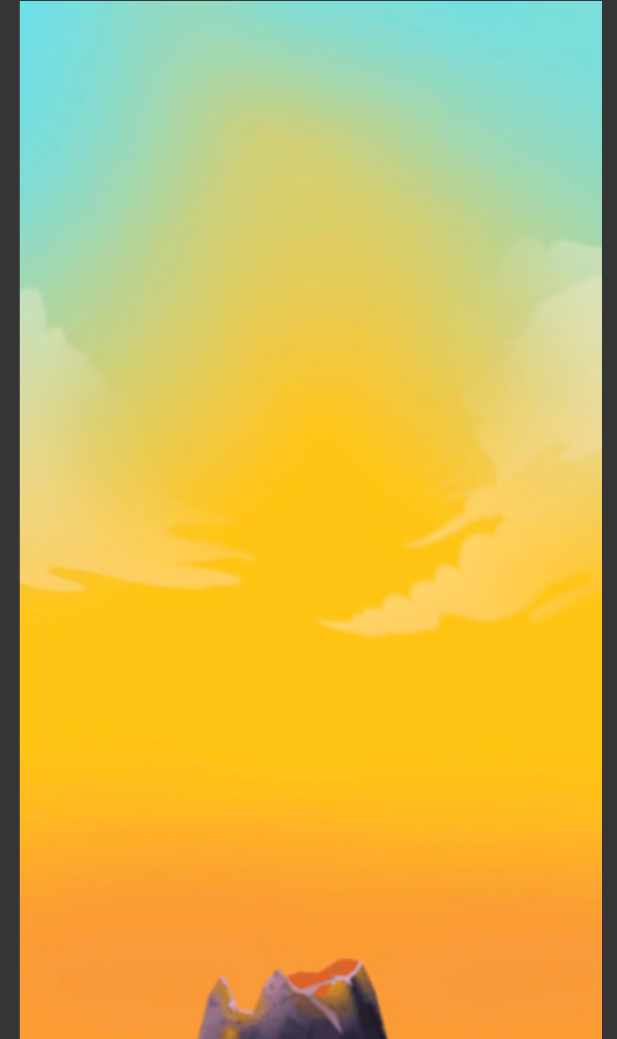
# 交互不止是点击

引流

氛围

橱窗

抽奖



# 交互不止是点击

视频

游戏

提醒

.....



VR

AR



引流

橱窗

氛围

抽奖

被动获得

主动寻求

信息

用户

反馈

视频

游戏

提醒

.....

.....

“动画，是展现页面的灵魂”

动效+时间=动画





# 动效就是值变化的过程






# 对变化过程做映射

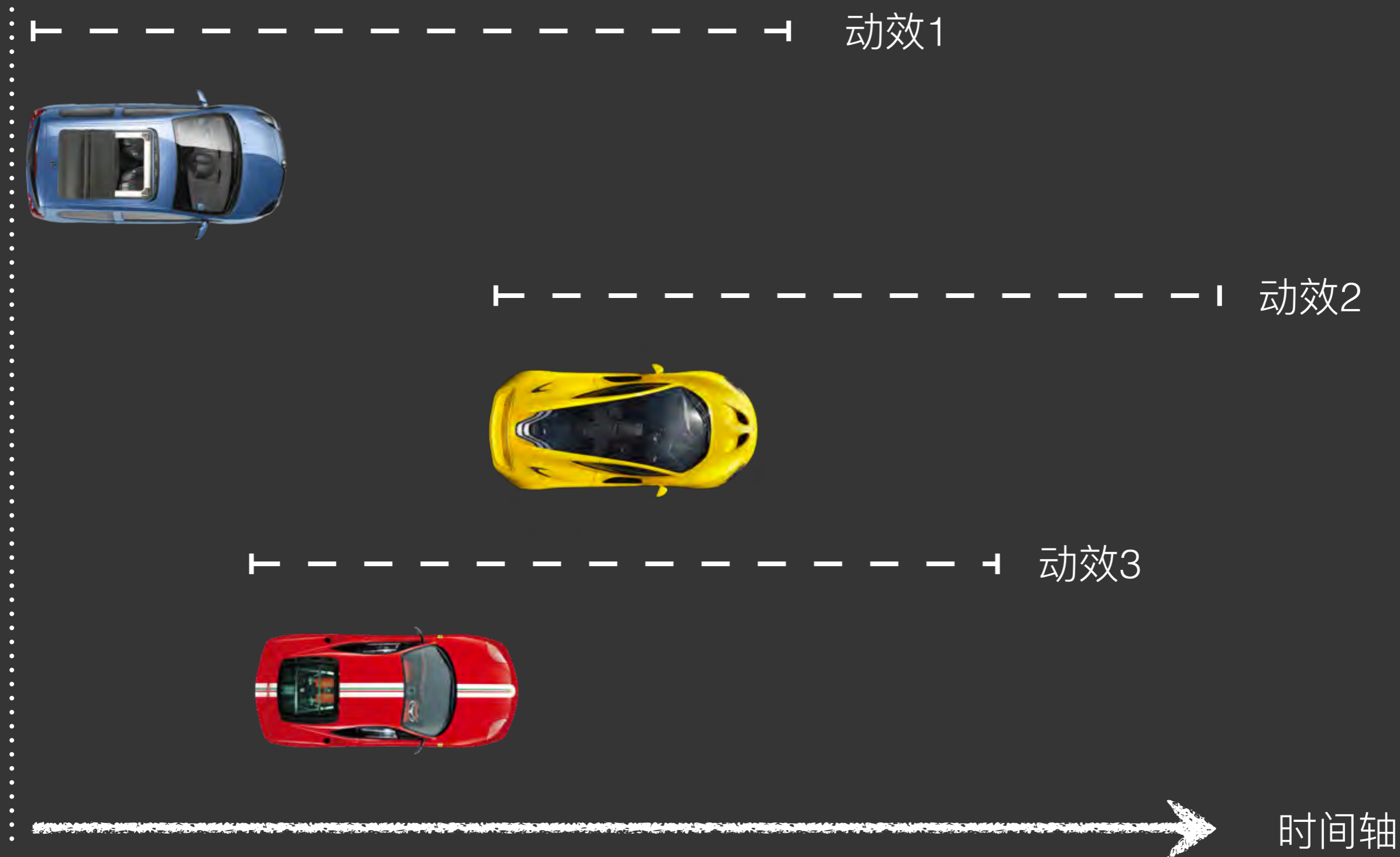
DOM

opacity 0  1  
transform translateX(0px)  translateX(100px)  
color rgba(255, 255, 255, 1)  rgba(100, 50, 100, 0.5)

Three.js

rotation Euler(0, 0, 1)  Euler(1.2, 2, 0.5)  
position Vector3(0, 0, 0)  Vector3(10, 50, 30)  
quaternion Quaternion(0, 0, 0, 1)  Quaternion(2, 2, 2, 1)

# 把动效串起来就是动画





“除了桥梁和灵魂，还有？”

兼容性

机型黑/白名单

# 性能优化

## Jank Free

CPU

数值运算

逻辑运算

GPU

GPU加速

图片栅格化

重绘

过度绘制



# 降级

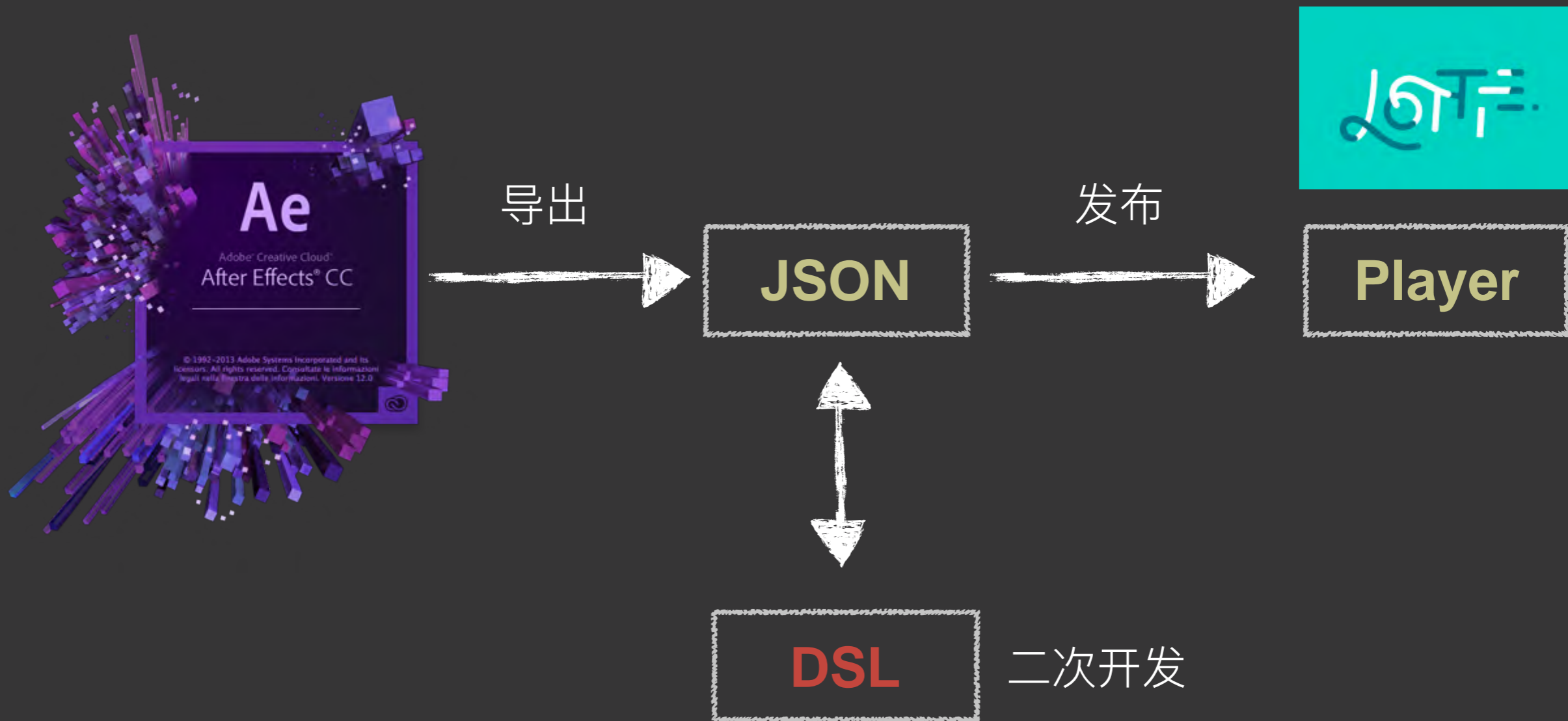
内容降级

版本降级

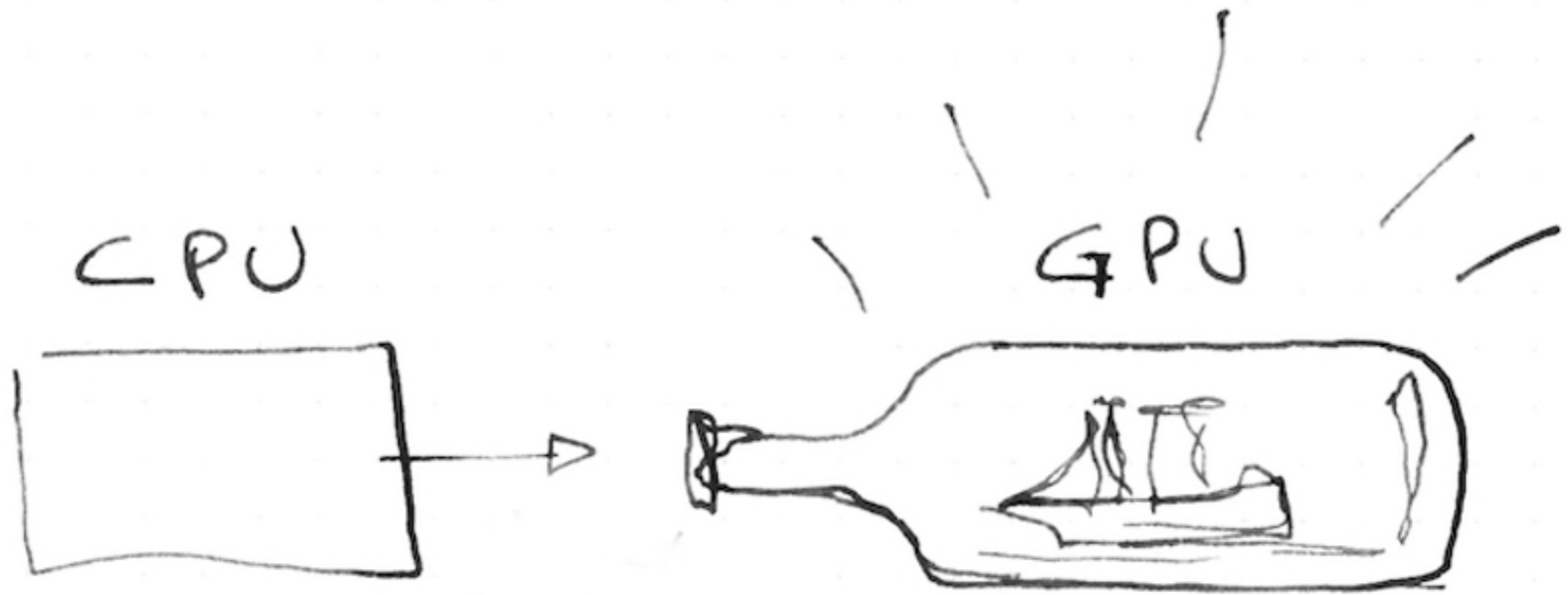
# 同Native的亲密接触



# 解放生产力的工具



# Web3D



# 炫酷的粒子





# GLSL的魅力

```
hide code 2 ↕ compiled successfully parent diff fullscreen gallery

26
27 float triangle(float x, float a) {
28     float output2 = 2.0*abs( 2.0* ( (x/a) - floor( (x/a) + 0.5) ) ) - 1.0;
29     return output2;
30 }
31
32 float field(in vec3 p) {
33     float strength = 7. + .03 * log(1.e-6 + fract(sin(time) * 4373.11));
34     float accum = 0.;
35     float prev = 0.;
36     float tw = 0.;
37
38     for (int i = 0; i < 6; ++i) {
39         float mag = dot(p, p);
40         p = abs(p) / mag + vec3(-.5, -.8 + 0.1*sin(time*0.7 + 2.0), -1.1+0.3*cos(time*0.3));
41         float w = exp(-float(i) / 7.);
42         accum += w * exp(-strength * pow(abs(mag - prev), 2.3));
43         tw += w;
44         prev = mag;
45     }
46     return max(0., 5. * accum / tw - .7);
47 }
48
49 void main() {
50     vec2 uv2 = 2. * gl_FragCoord.xy / vec2(512) - 1.;
51     vec2 uvs = uv2 * vec2(512) / 512.;
52
53     float time2 = time;
54     float speed = speed2;
55     speed = .01 * cos(time2*0.02 + 3.1415926/4.0);
56     //speed = 0.0;
57     float formuparam = formuparam2;
58
59     //get coords and direction
60     vec2 uv = uvs;
61     //mouse rotation
62     float a_xz = 0.9;
63     float a_yz = -.6;
```



# 粒子编辑器

WebGL Particle System Editor

Tutorial Gitlab

Inspector

60 FPS (48-60)

Presets

Flame Smoke Rain  
GasFlame WhiteEnergy  
Ripple Sprite **Text**

QR code (TODO...)



Save (TODO...)



Start Size

startSize	1
startSizeRange	12

End Size

endSize	32
endSizeRange	0

Spin Start

spinStart	0
spinStartRange	0

Spin Speed

spinSpeed	5
spinSpeedRa...	1

Frame

frameStart	0
frameStartRa...	0
frameDuration	0.17
numFrames	1

Position

0	50
1	0
2	0
0	747
1	731
2	0

Velocity

# WebGL框架

Three.js

stack.gl

BabylonJS

Unity

PlayCanvas

“互动是前端界的又一股泥石流”

# Q&A

**THX**

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