

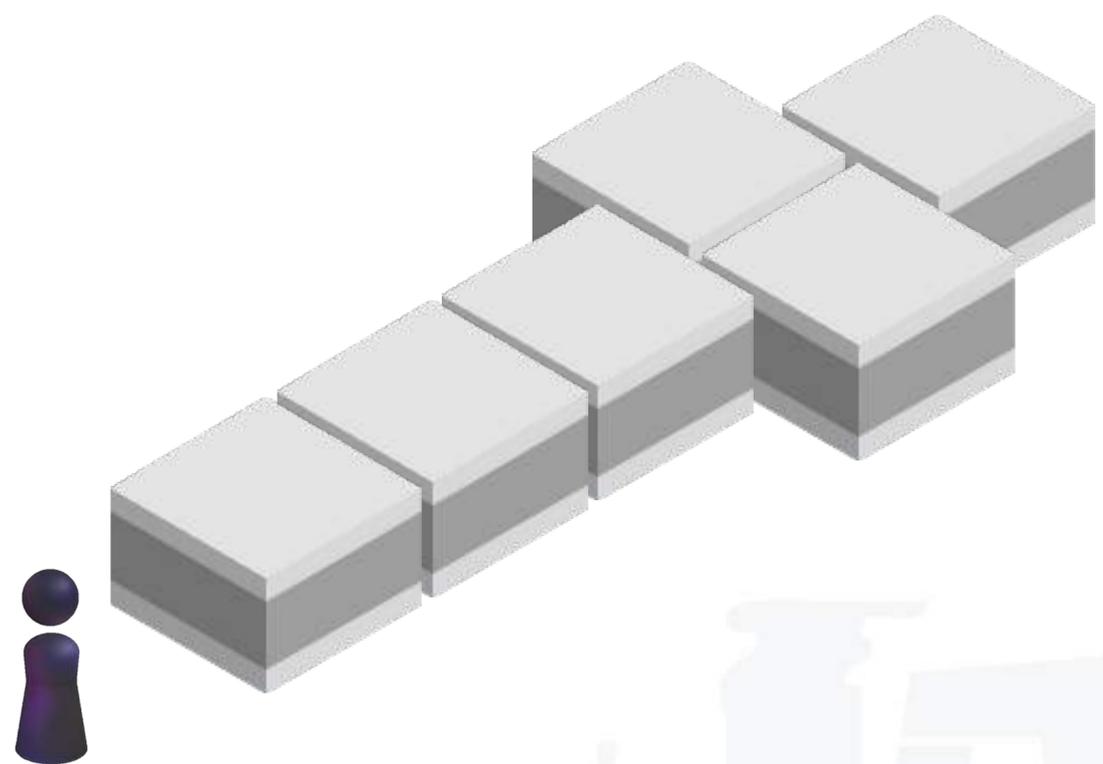


QCon 全球软件开发大会
INTERNATIONAL SOFTWARE
DEVELOPMENT CONFERENCE

BEIJING 2018

跳一跳的前世今生——小游戏开发经验分享

演讲者 / 徐嘉键



DAU : 100000000+

1. 如何做一款优秀的小游戏
2. 小游戏平台是怎么样的
3. 跳一跳的开发实践

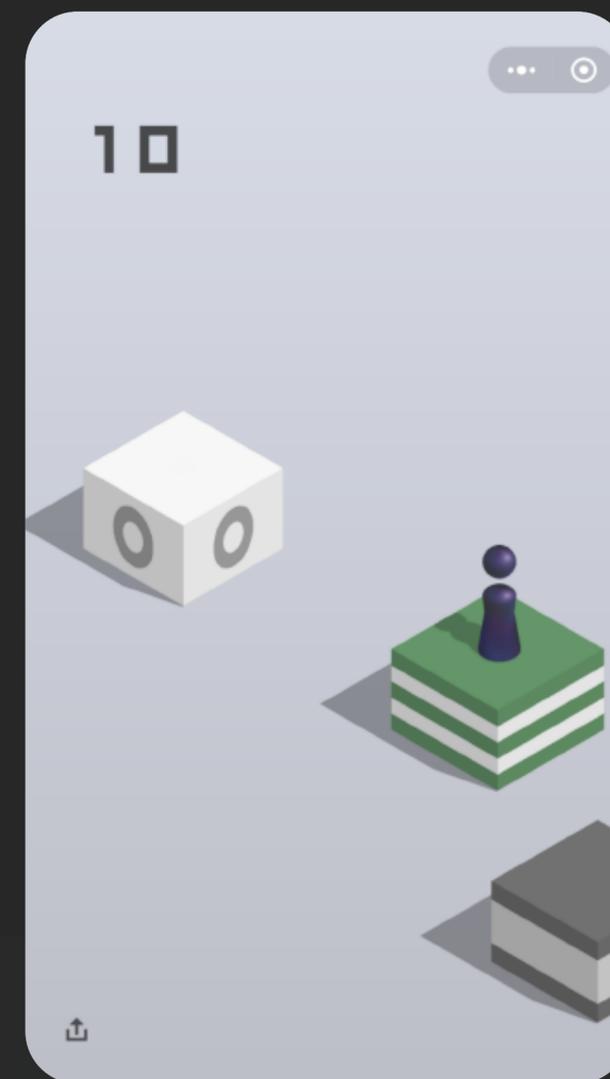
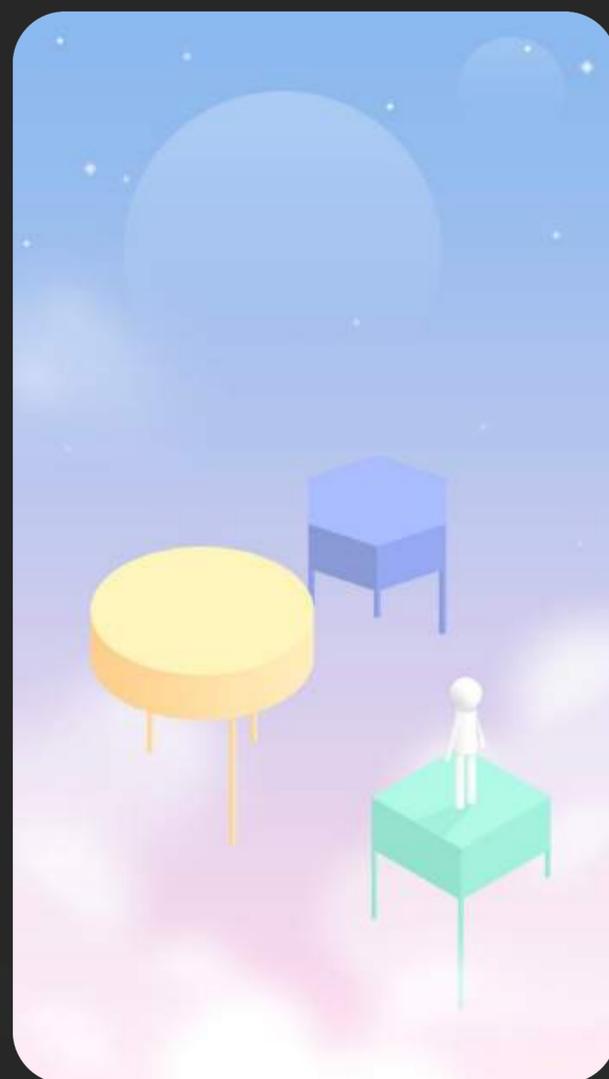
QCon 分享概览 



轻而有趣



跳一跳开发历程





前端开发×3

开发周期: 2个月
游戏策划×1



后端开发×2



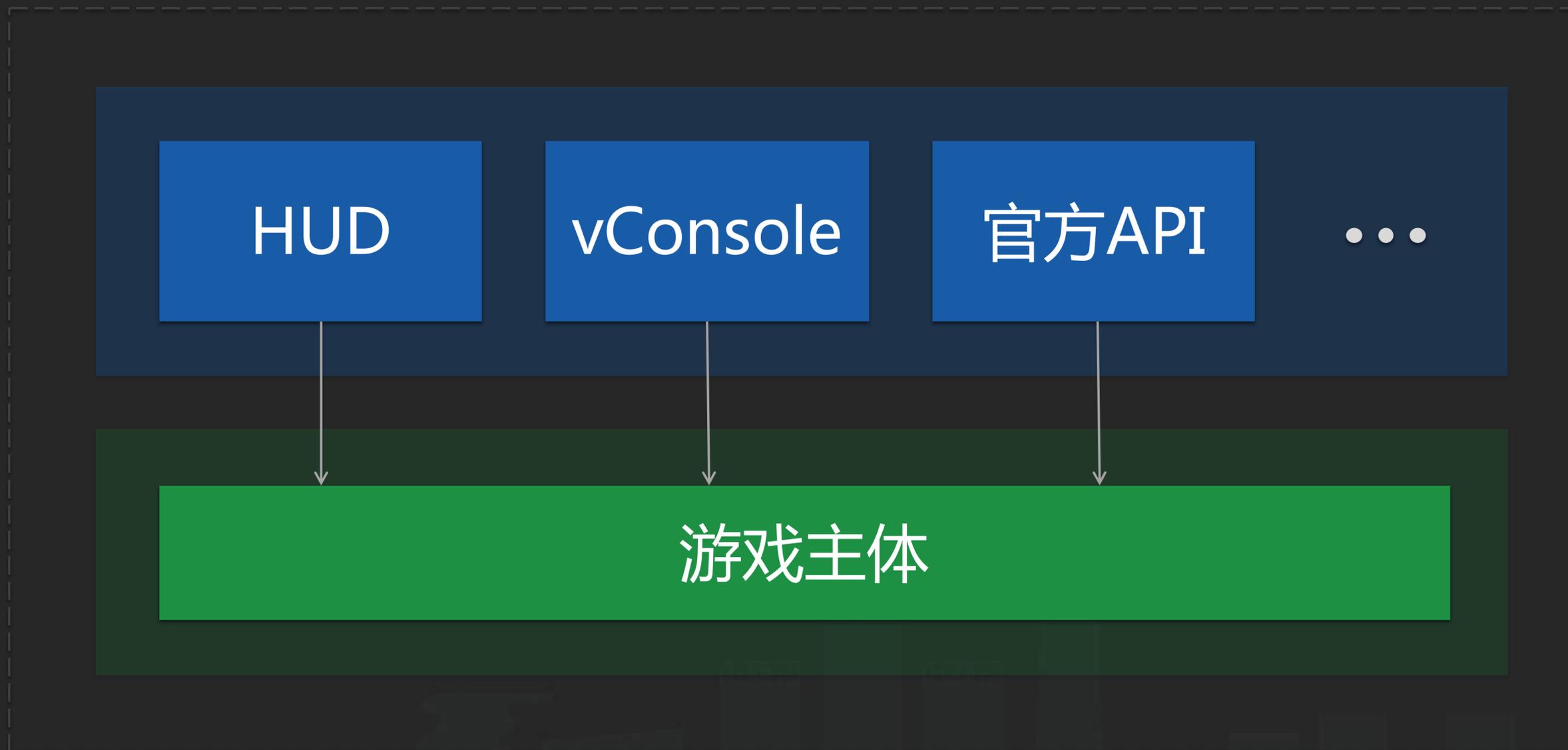
美术设计×2

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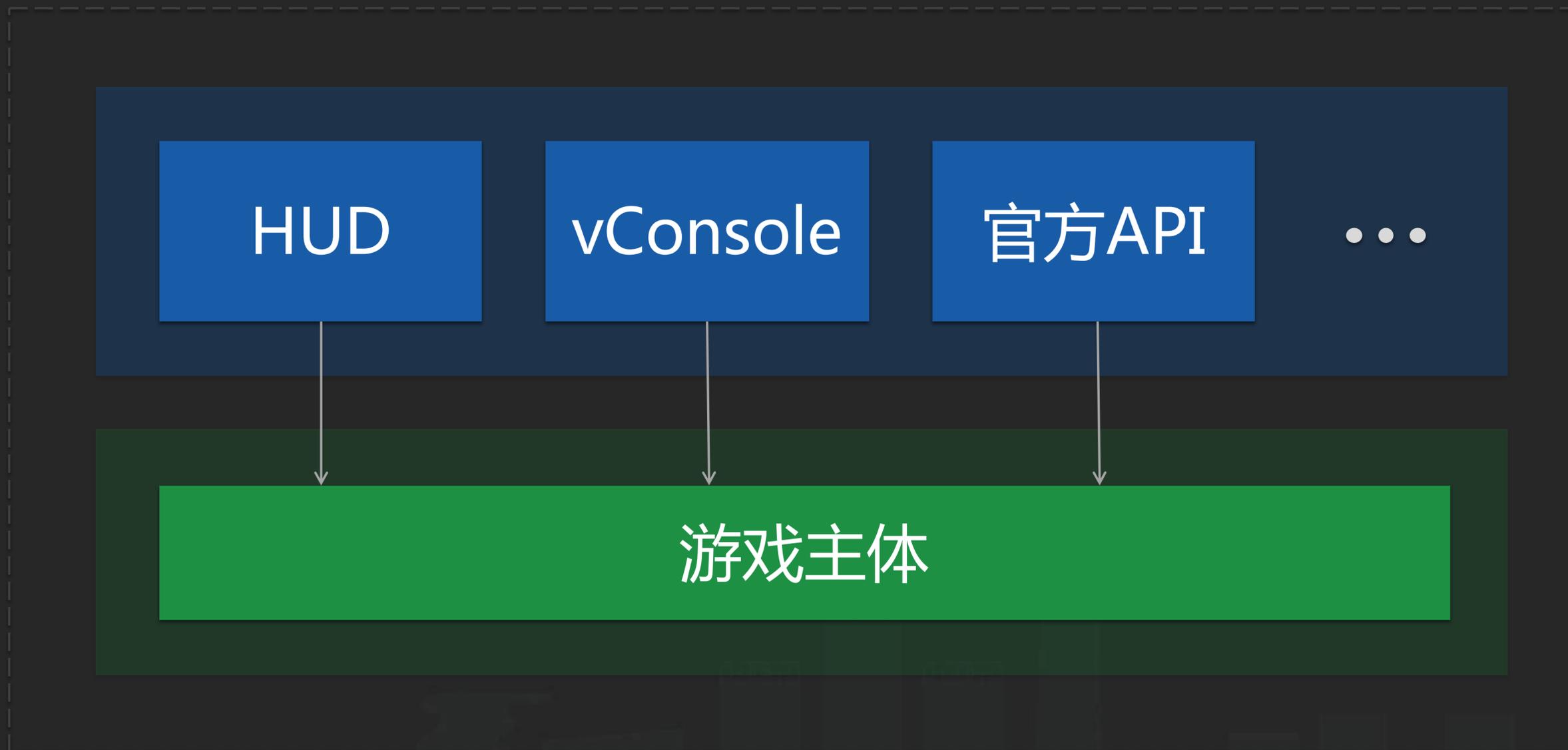
3. 跳一跳的开发实践

QCon 分享概览 



vConsole真机调试

The image shows a split-screen view of a mobile application being debugged. On the left, the app's interface is visible, featuring a large title "跳一跳" (Jump) and a game board with numbered blocks (1-6) and a black pin. At the bottom of the app screen, there are three buttons: "打开调试" (Open Debugging), "关于跳一跳" (About Jump), and "取消" (Cancel). On the right, the vConsole interface is open, displaying a log of system messages. The log includes several entries related to WebGL rendering, such as "THREE.WebGLRenderer: WEBGL_depth_texture extension not supported." and "THREE.WebGLRenderer: OES_texture_float_linear extension not supported." There are also entries for "Storage get session ID success" and "Storage get friend score success". A "vConsole" button is visible at the bottom right of the console area.



SystemInfo wx.getSystemInfoSync()

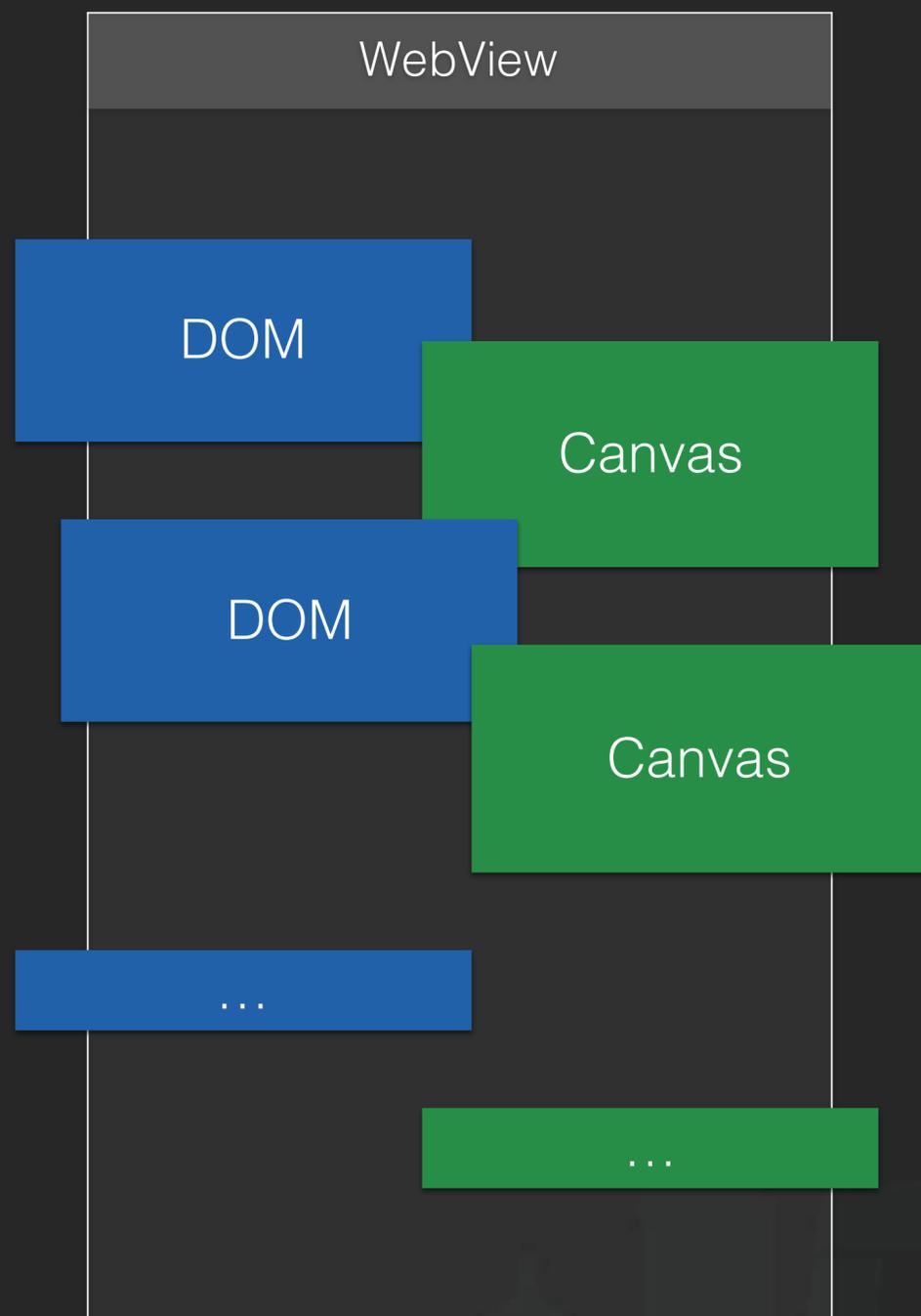
brand	手机品牌
model	手机型号
benchmarkLevel	性能等级
	-2 或 0 : 该设备无法运行小游戏
	-1 : 性能未知
	>=1 : 设备性能值, 该值越高, 设备性能越好

1. 如何做一款优秀的小游戏

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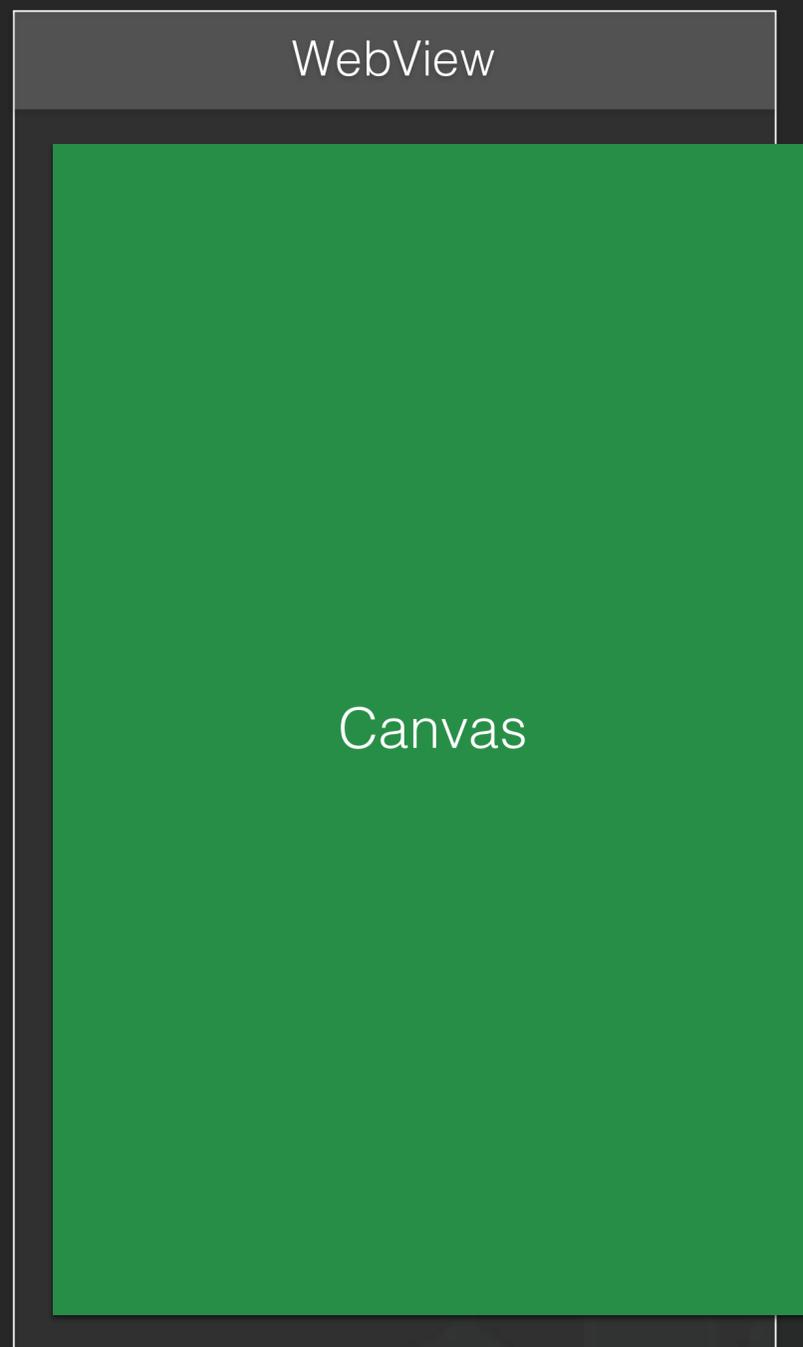
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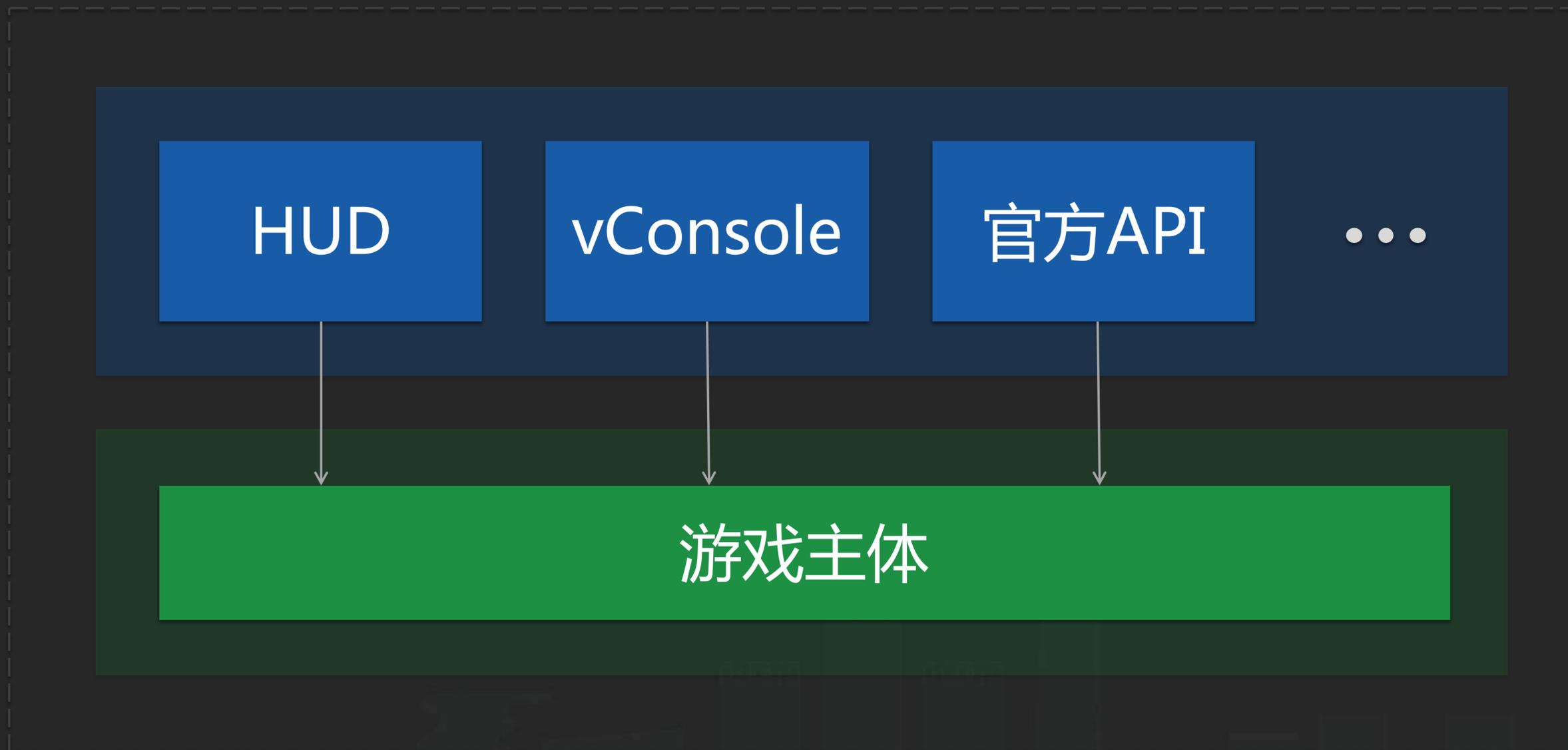
传统Canvas游戏

支持多Canvas、自定义DOM，代码包大小不限



小游戏

仅支持一个可见Canvas、4M代码包



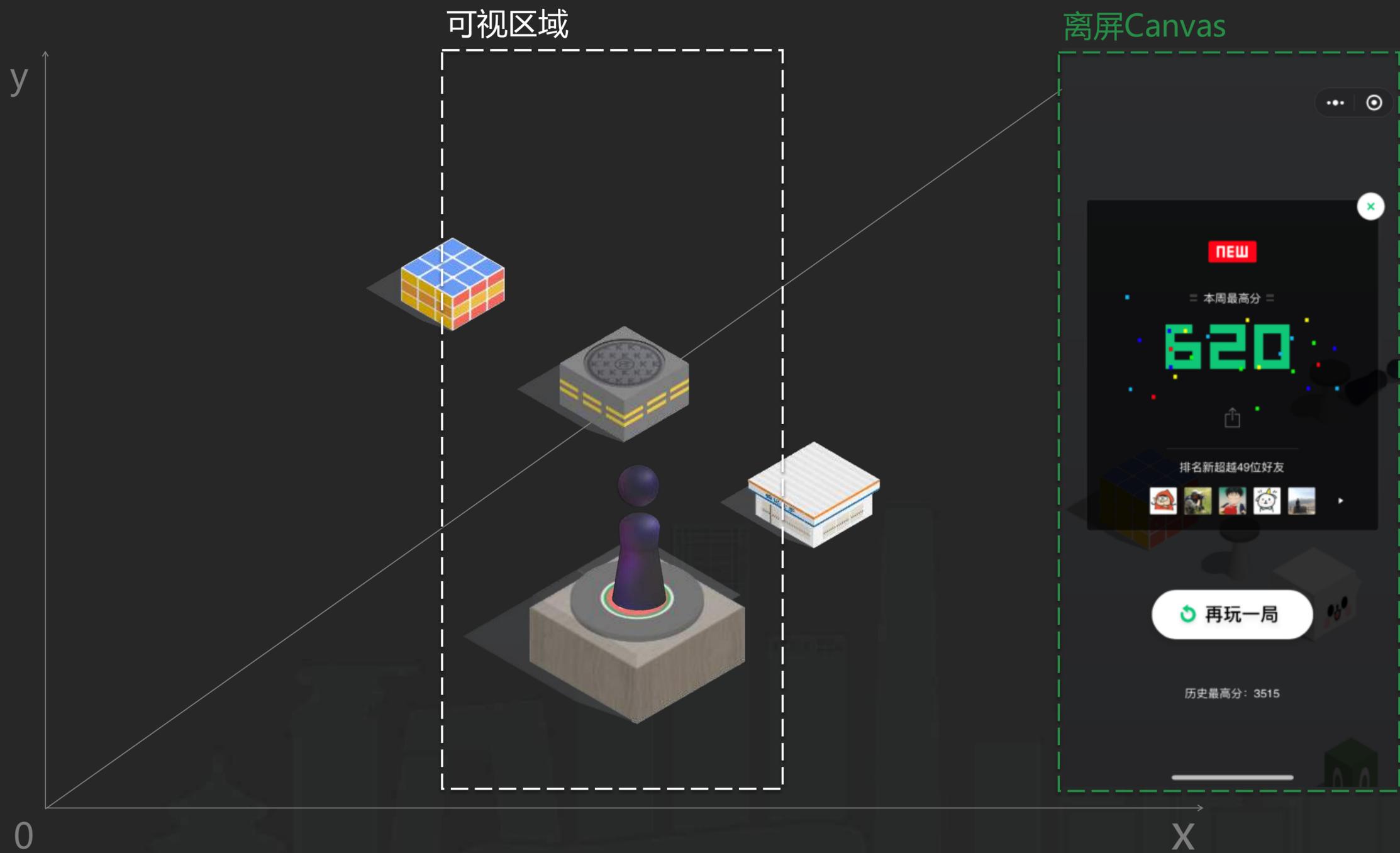
 4M

 3D



跳一跳HUD解决方案

HUD绘制整体方案



HUD布局与样式



手机屏幕比例差异大

? 成本 ? 效果

每个元素按比例适配布局与样式时间成本高

HUD内容区等比缩放

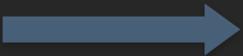
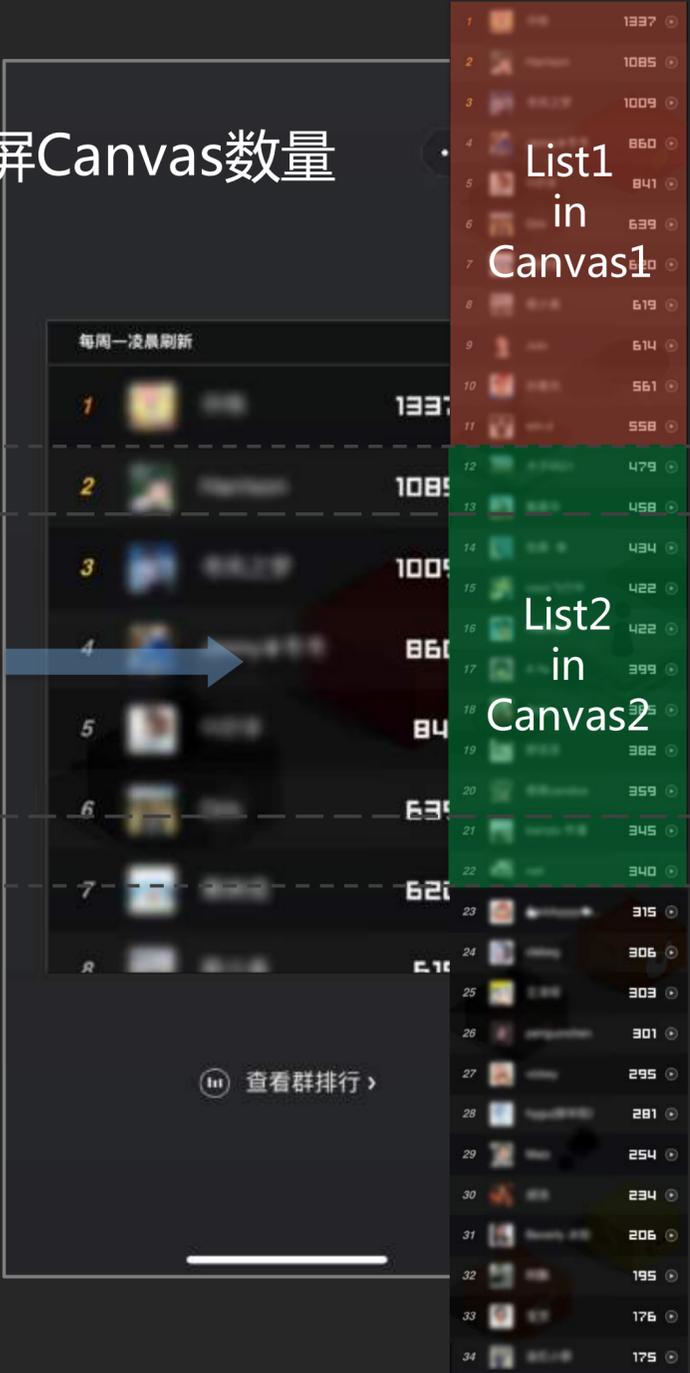
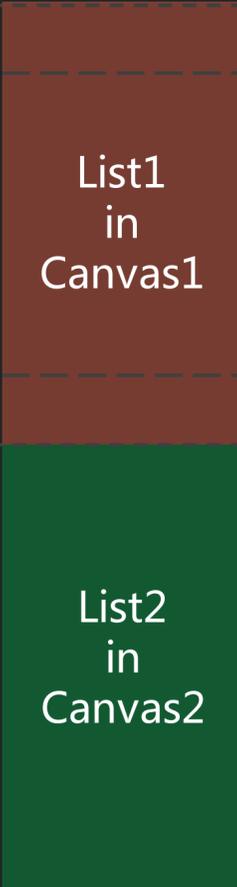
HUD路由切换

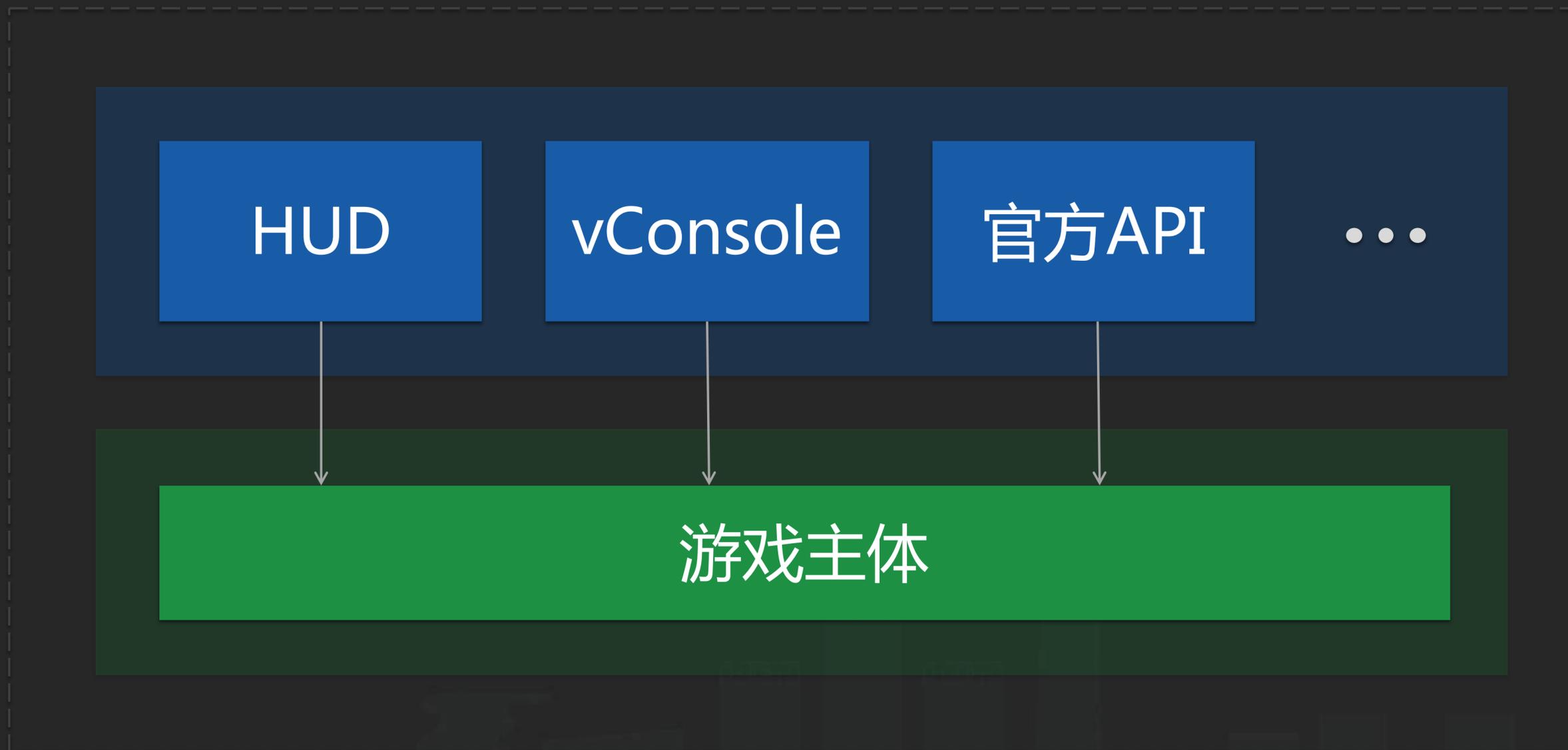


HUD事件与滑动

影响性能的因素：离屏Canvas大小与离屏Canvas数量

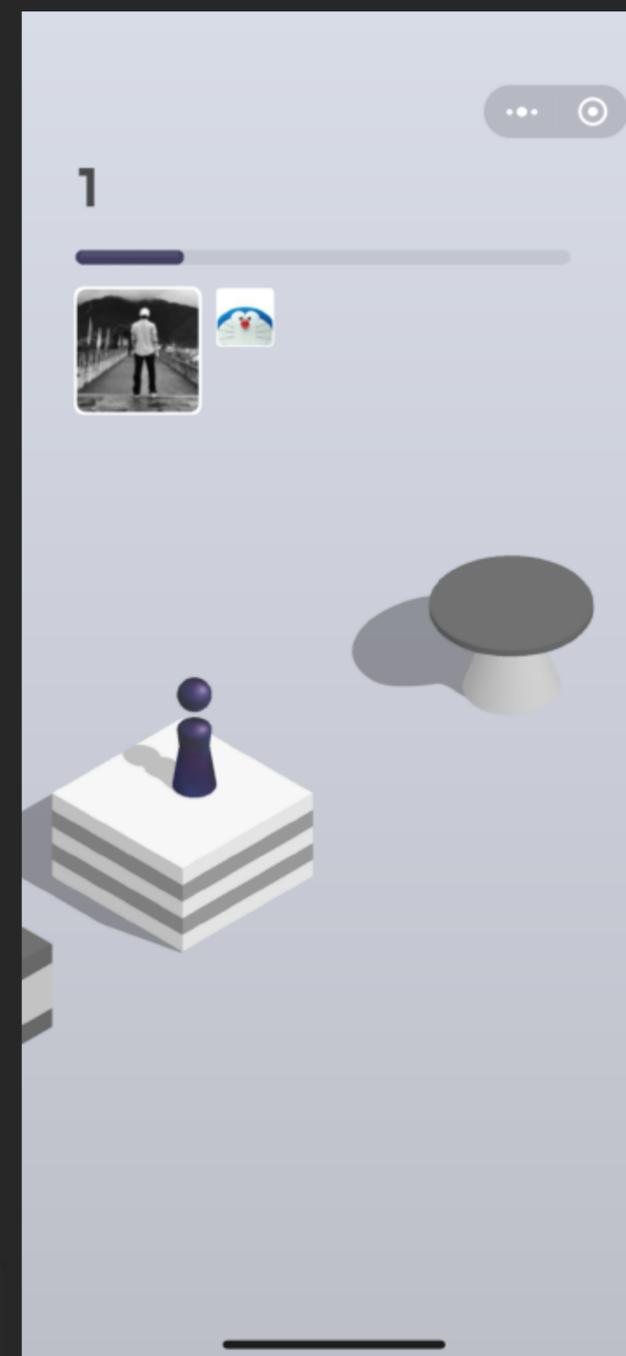
可滑动区域



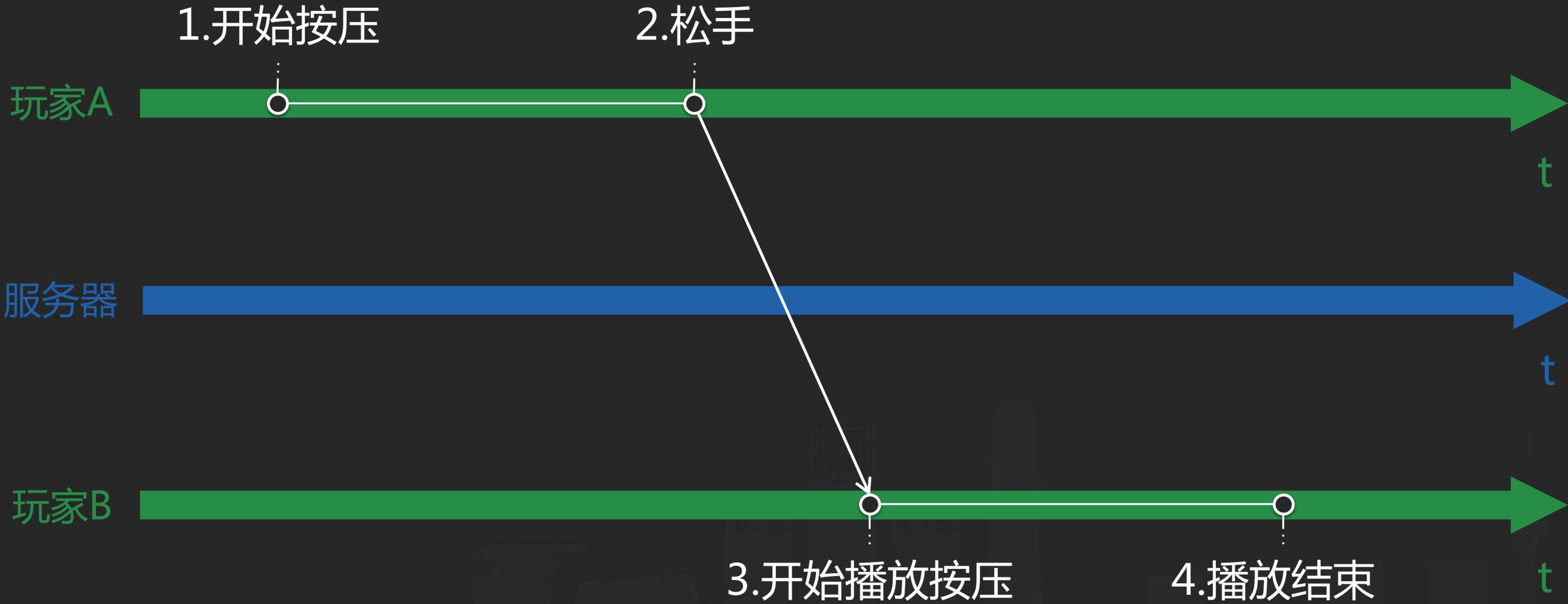




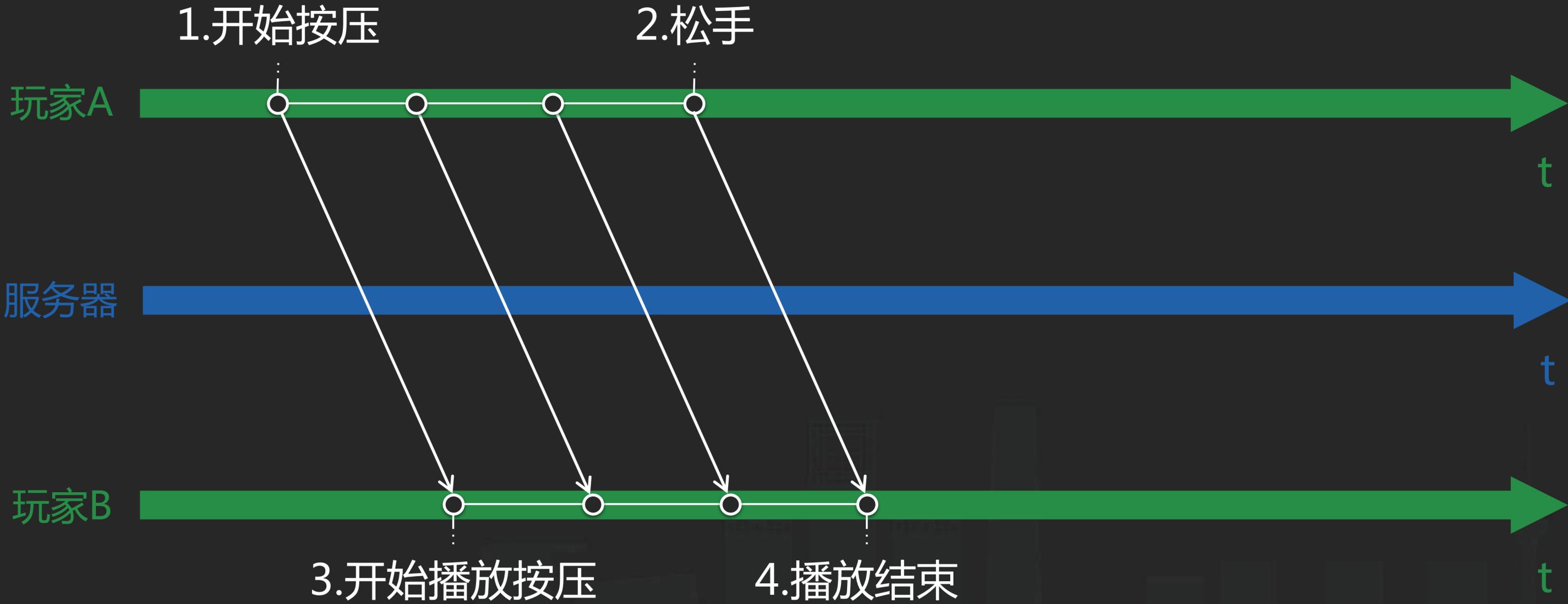
高实时状态同步



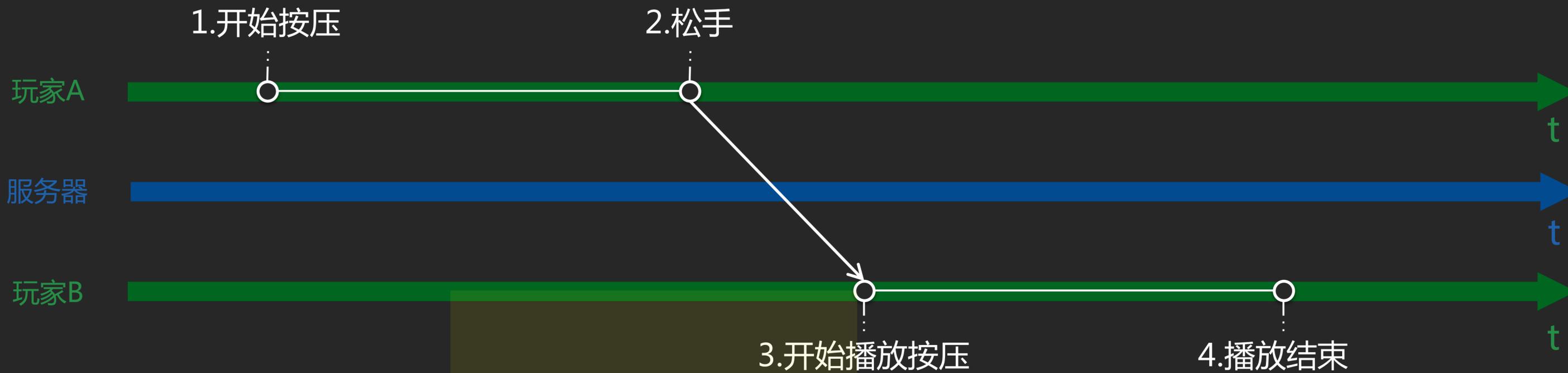
方案一



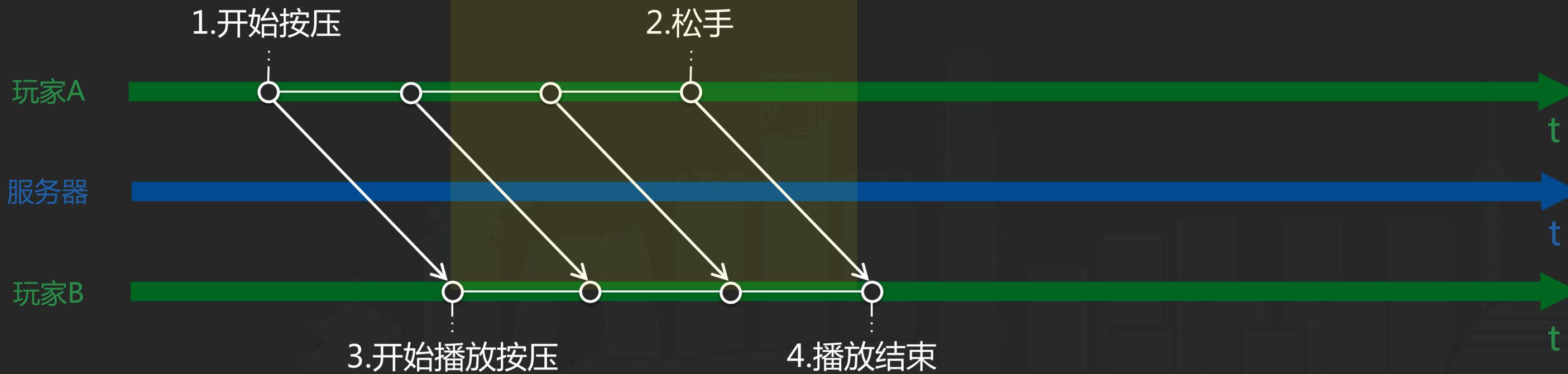
方案二



方案一



方案二





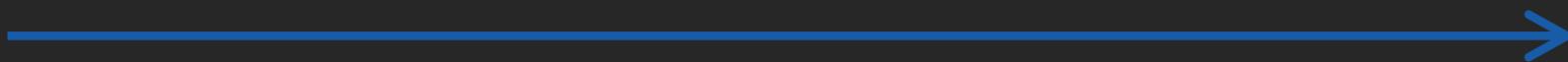
性能优化实践

阴影性能调优



实时计算 → 使用贴图 → 不呈现阴影

手机性能

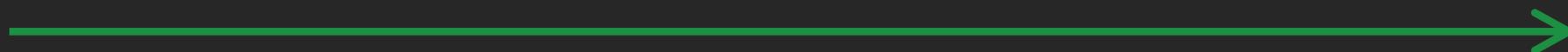


benchmarkLevel为5的手机，平均帧率15 → 35



实时上报 → 本地缓存，待网络恢复后上报最高分

网络情况



1. 如何做一款优秀的小游戏：**轻而有趣**

2. 小游戏平台是怎么样的：**便捷赋能**

3. 跳一跳的开发实践：**平衡高效**

QCon 分享总结 



高分的背后，是努力的训练。

跟天赋和外挂无关。





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