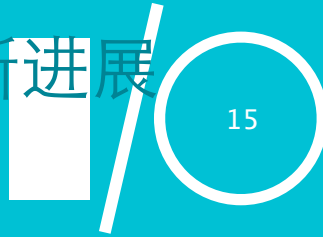


Android 最新进展

胡 坤
Developer Advocate



Android 最新进展

Android M

Google Play 服务

Android UI/Material Design

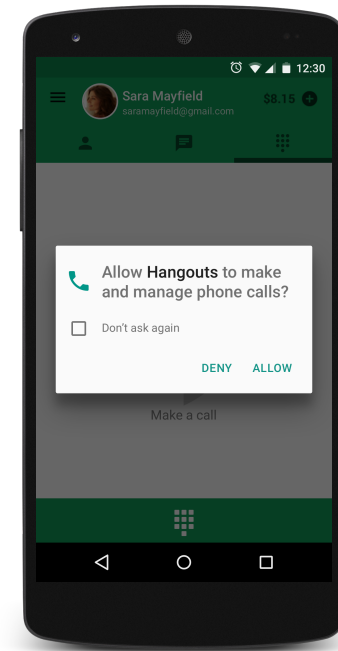
Google 开发者工具

Google 开发者控制面板

Android M 运行时权限

最佳实践

- 启动界面详细解释所需权限
- 只在需要的时申请必要权限
- 获取用户权限做出立即反馈
- 用户拒绝权限遵循设计规范



Android M 指纹加密&锁屏确认

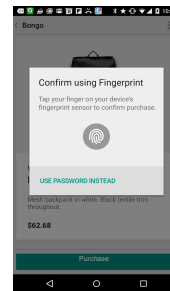
01.

指纹加密

方便支付和登陆

用户界面可定义

可任意时刻启用



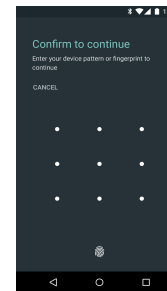
02.

锁屏确认

利用设备锁屏

定义Timeout策略

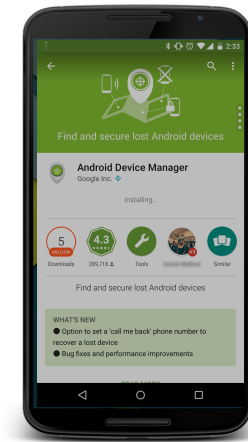
同步Timeout



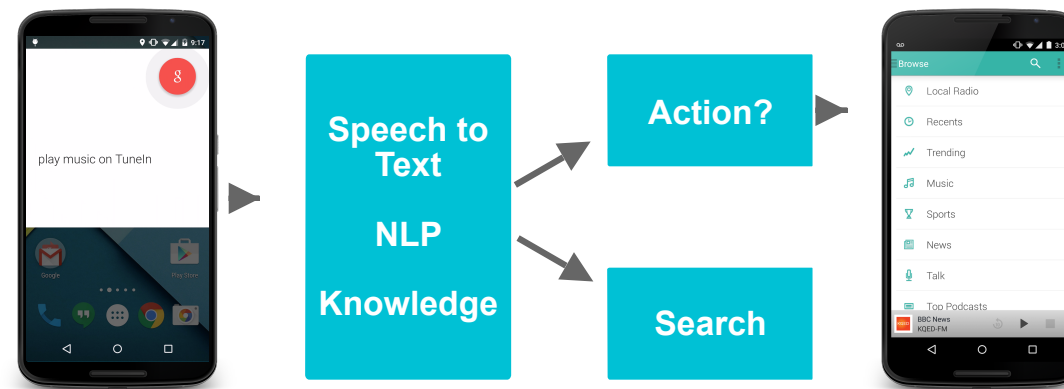
Android M 应用数据自动备份

功能说明

- 每天备份一次
- 每个应用25M
- 应用可以自定义
- 无需代码编程
- 需要SDK 23

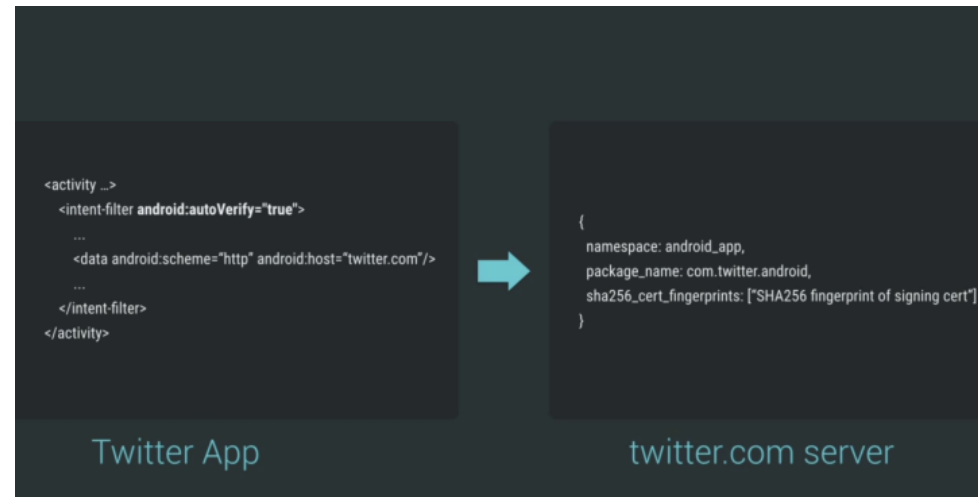


Android M Voice Action



- 1) 系统支持7个动作，2) 可自定义动作
- 3) 可应用内交互

Android M App Links



Android M

电池管理：Doze & Standby

Doze

无任何输入的设备变成“inactive”

等待更长时间唤醒后台任务

继续任务执行在手机被移动、使用或者充电

App standby

不被使用的应用失去网络访问权限

继续执行在重新启动、使用或者充电后

Google Play服务7.5

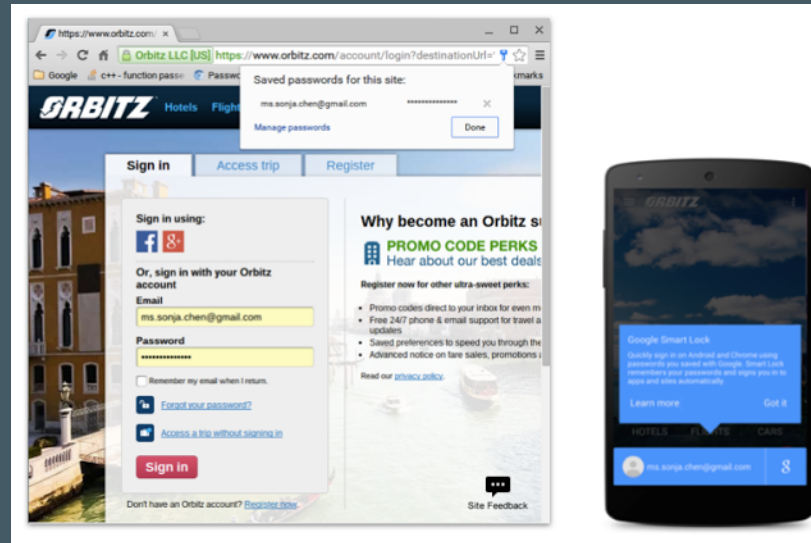
云推送3.0



iOS

Google Play服务7.5

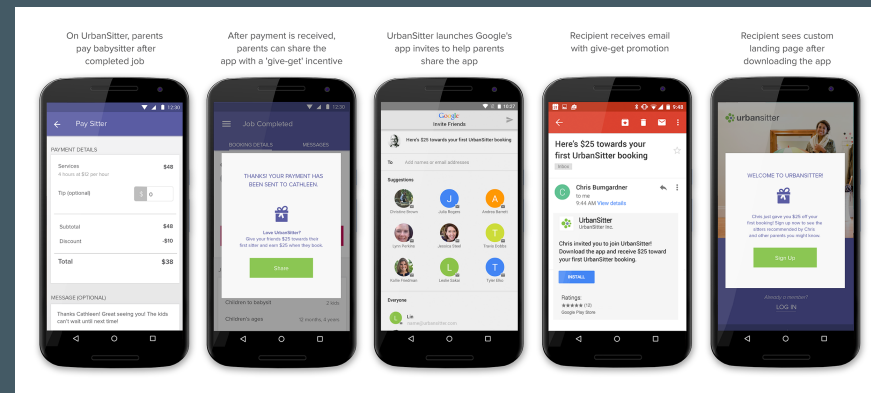
Smart Lock for password



Google Play服务7.5 应用邀请

口碑传播

- 应用内邀请
- 支持短信邮件
- 所有联系人
- 可跟踪安装
- 提示邀请人



Google Play服务7.5

远程显示 for Cast



远程显示

适合3D、计算需求高的游戏应用



CAST

适合基于HTML5的游戏视
频。

1700万设备、15亿次点
击、28个国家、上万应用

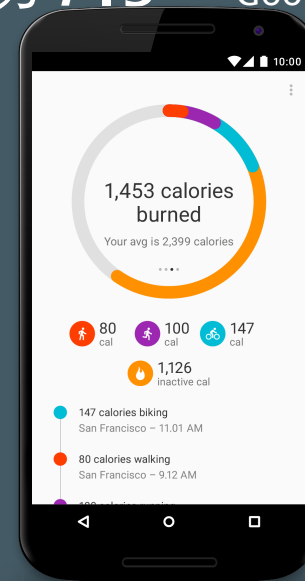
Google Play服务7.5

Android Wear: 地图API,
Always on



Google Play服务7.5 Google Fit

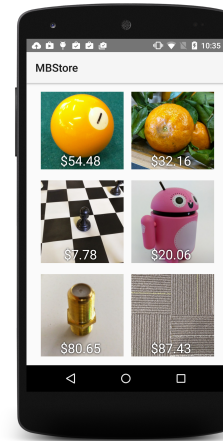
- 01. 行为探测，比如仰卧起坐
- 02. 计算步数，行走距离
- 03. 更多感应设备，比如心跳
- 04. Wear API coming.....



Android UI

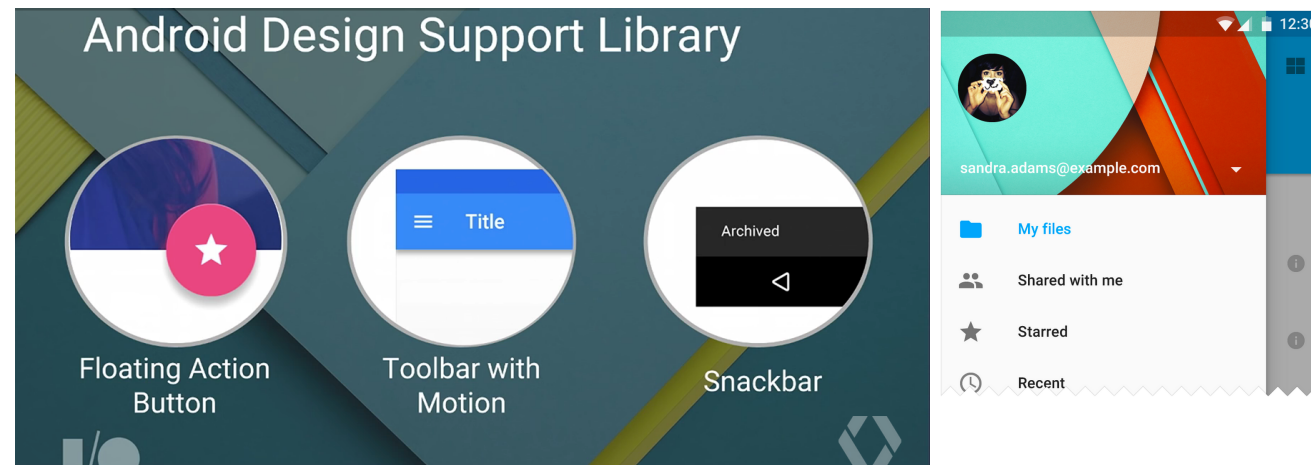
Layout: 数据绑定

```
<ImageView  
    android:src="@{item.image}"  
>  
layout.setItem(item);
```



Android UI

Material Now(1)

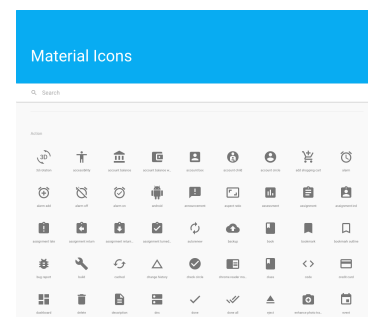


Android UI

Material Now(2)

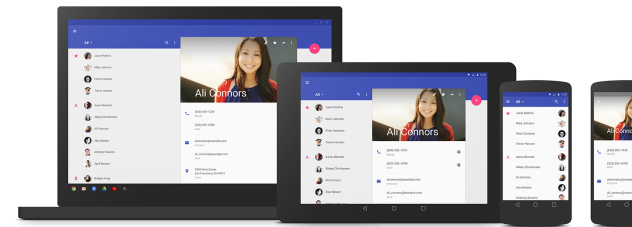
Material Now(2)

google.com/design/icons/



<http://github.com/google/material-design-icons/>

Android UI



Material Now(3)

Devices

Type	Device	Platform	Screen dimensions in in	Aspect Ratio	Width × Height dp	Width × Height px
Android One		Android	4.5 in 2.2 × 3.9 in	16 : 9	328 × 569 (p)	488 × 854 (p)
Apple Watch 38mm		iOS	1.5 in 0.9 × 1.2 in	5 : 4	156 × 178 (p)	272 × 348 (p)
Apple Watch 42mm		iOS	1.7 in 1.0 × 1.2 in	5 : 4	156 × 195 (p)	312 × 398 (p)
Asus Zen Watch		Android	1.4 in 1.2 × 1.2 in	1 : 1	213 × 213 (p)	328 × 328 (p)
Chromebook 11		Chrome	11.4 in 10.1 × 8.7 in	16 : 9	1366 × 768 (p)	1944 × 768 (p)
Chromebook Pixel		Chrome	12.5 in 10.2 × 7.5 in	3 : 2	1380 × 918 (p)	2048 × 1398 (p)
Chromebook 30						
Samsung Galaxy S						
HTC One X8						
HTC One X9						
iPad SE						
iPad Mini						

Nexus 6

Material metrics

64 dp
Touchbar height

48 dp
UI height

4
Columns

16 dp
Gutter width

Google

Layout > Adaptive UI

Adaptive UI

Responsive layouts in material design adapt to any possible screen size. This adaptive UI guidance includes a flexible grid that ensures consistency across layouts, breakpoint details about how content refows on different screens, and a description of how an app can scale from small to extra-large screens.

Contents

Breakpoints

Grid

Surface behaviors

Patterns

Breakpoints

For optimal user experience, Material user interfaces should adapt layouts for the following breakpoint widths: 480, 640, 840, 960, 1280, 1440, and 1600dp.

480

640

840

960

1280

1440

1600

提名->断点->分格->界面行为->开工.....

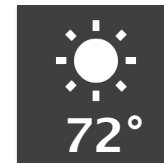
Android UI

Notification: 基于位图的图标

```
Icon ic = Icon.createWithBitmap(iconBitmap);
```

```
Notification no = new Notification.Builder(context)  
    .setSmallIcon(ic)
```

```
    ...  
    .build();
```

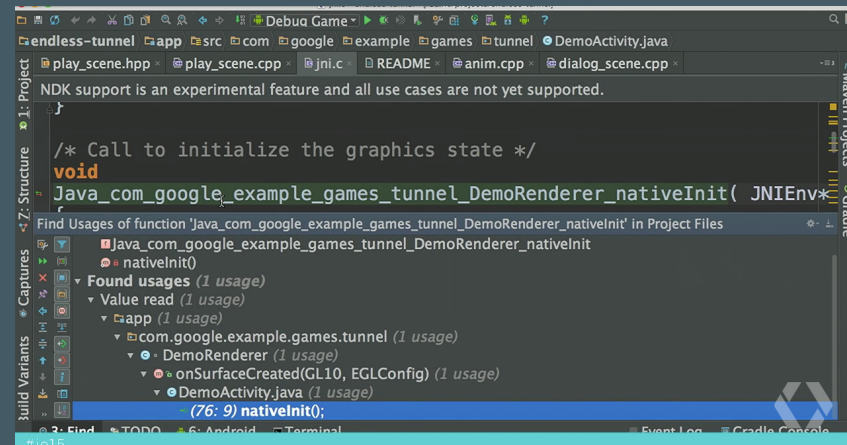


Google 开发者工具

C++ NDK

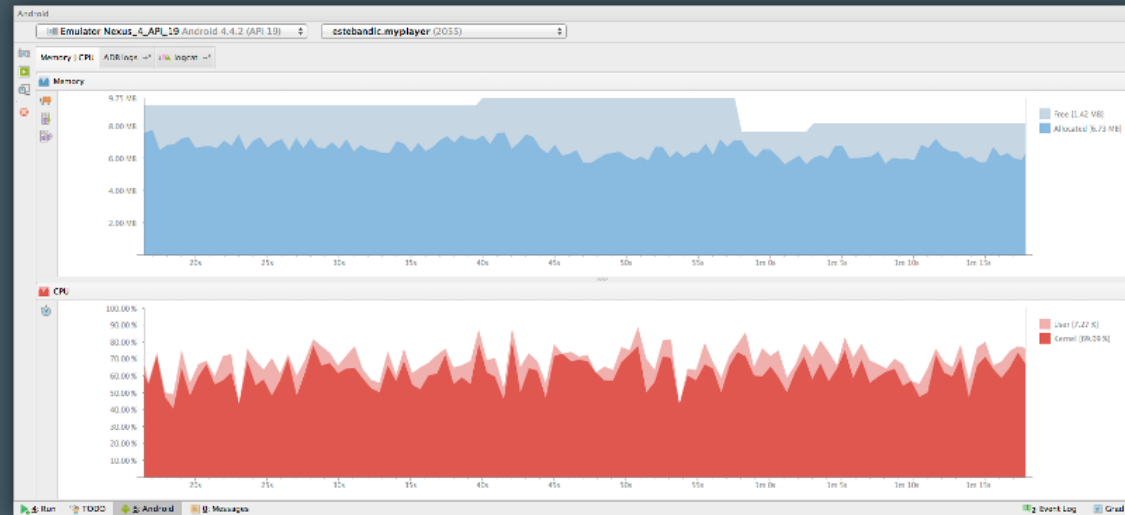
支持C++

- 调试、重构
- 基于CLion
- 免费工具



Google 开发者工具

内存监测



Google 开发者工具

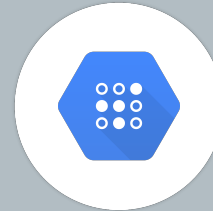
测试



Android Studio



Android Testing



Cloud Test Lab



Google Play

Setup

- Setup projects with tests & infrastructure

Develop

- User Interface Tests
- Java Unit Tests

Release

- Testing on matrix of devices (virtual & real)

Support

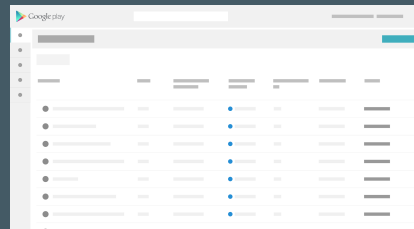
- Google Play App Testing & Validation

Google 开发者控制面板 云测试

01. Beta内测申请

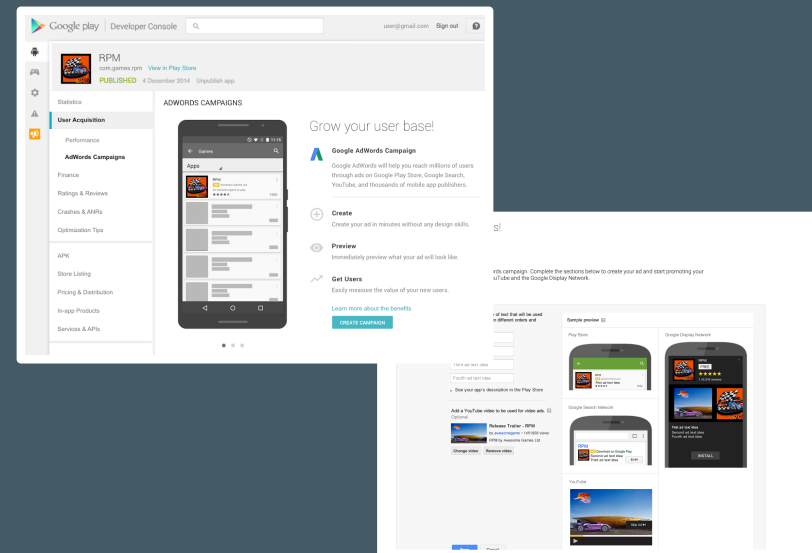
02. 完全免费

03. 可变成测试用例

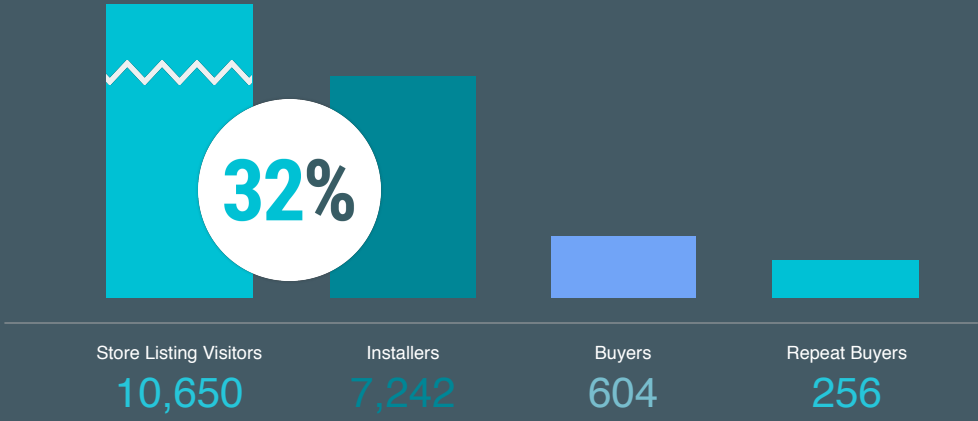


Google 开发者控制面板 广告投放

01. 支持Google全部广告网络
02. 支持投放效果跟踪
03. 支持自定义渠道

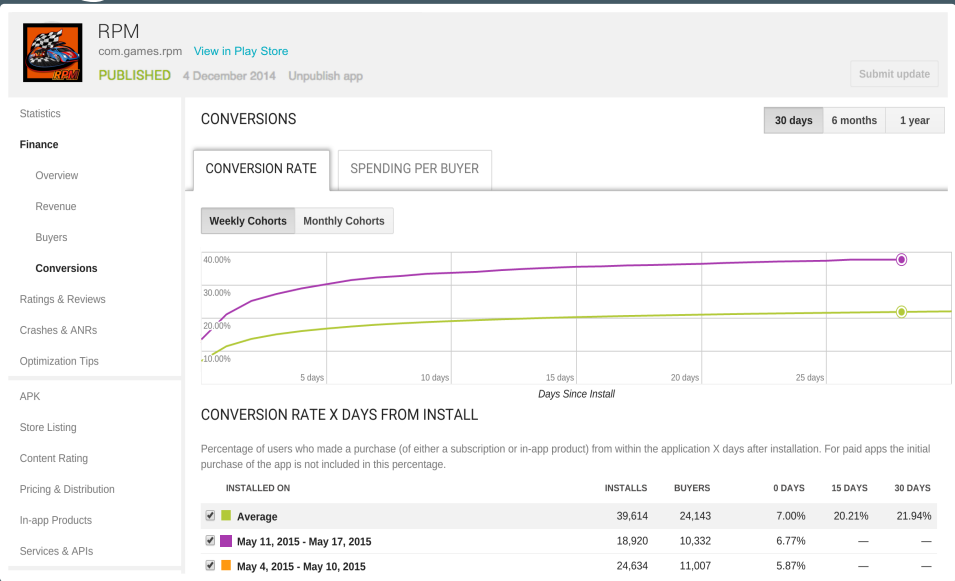


Google 开发控制面板 广告转换



支持优化应用商店下载页面

Google 开发者控制面板 收入转化



Thanks