

# Application Framework Activity and Window

David Lau • China







本作品采用知识共享署名-非商业性使用-禁止演绎 3.0 中国大陆 许可协议进行许可。要查看该许可协议,可访问http://creativecommons.org/licenses/by-nc-nd/3.0/cn/

#### 您可以自由:

复制、发行、展览、表演、放映、广播或通过信息网络传播本作品

#### 惟须遵守下列条件:

- 署名 您必须按照作者或者许可人指定的方式对作品进行署名。
- 非商业性使用 您不得将本作品用于商业目的。
- 禁止演绎 您不得修改、转换或者以本作品为基础进行创作。
- © Copyright 2013 These slides created by :刘智勇(David Lau) Email: zhiyong.liu@aliyun.com Latest Update: 2013-09-08







This work is licensed under the Creative Commons Attribution-NonCommercial-NoDerivs 3.0 Unported License. To view a copy of this license, visit http://creativecommons.org/licenses/by-nc-nd/3.0/ or send a letter to Creative Commons, 444 Castro Street, Suite 900, Mountain View, California, 94041, USA.

#### You are free:

to Share — to copy, distribute and transmit the work

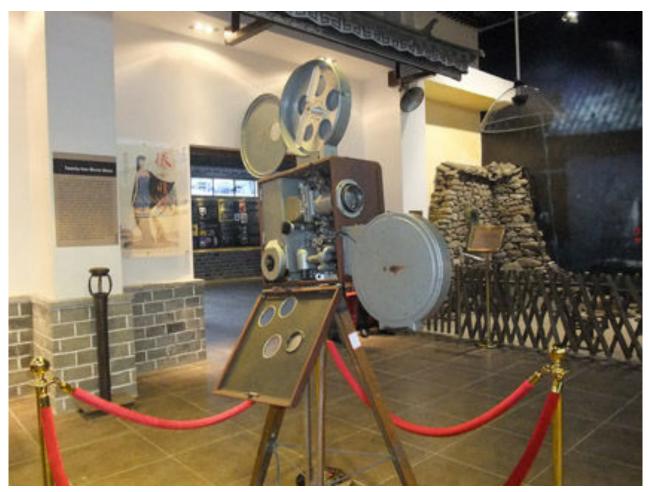
#### Under the following conditions:

**Attribution** — You must attribute the work in the manner specified by the author or licensor (but not in any way that suggests that they endorse you or your use of the work).

**Noncommercial** — You may not use this work for commercial purposes. **No Derivative Works** — You may not alter, transform, or build upon this work.

© Copyright 2013 These slides created by :刘智勇(David Lau) Email: zhiyong.liu@aliyun.com Latest Update: 2013-09-08

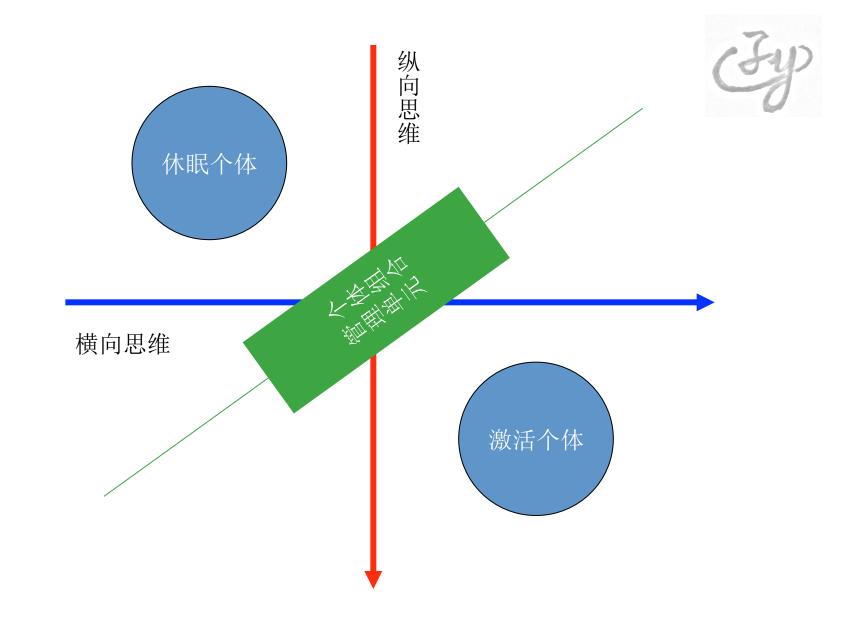


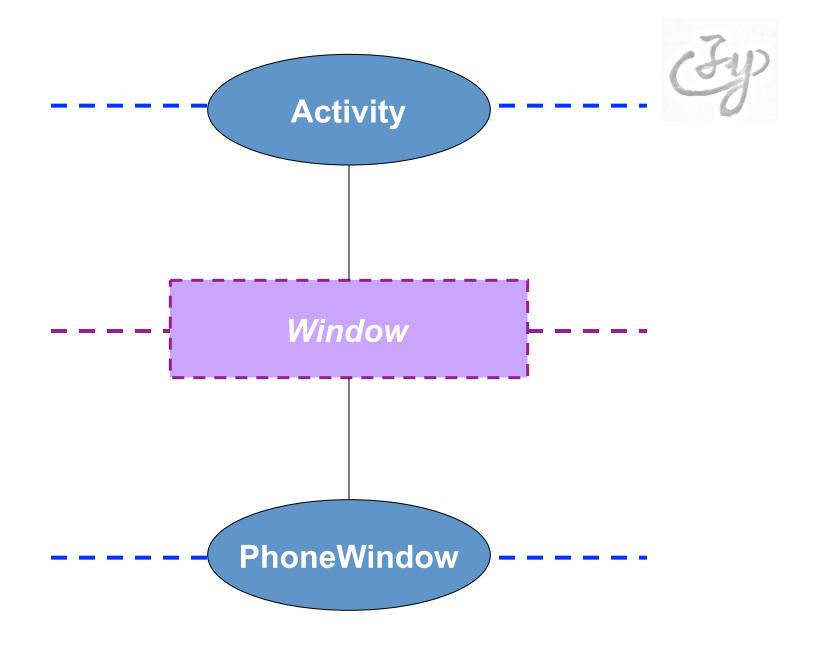


标明出处



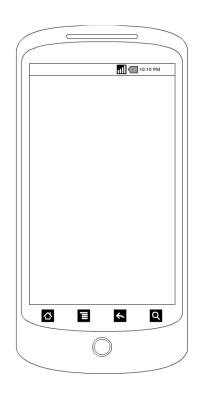
#### 组合对象的 生命周期思维模型



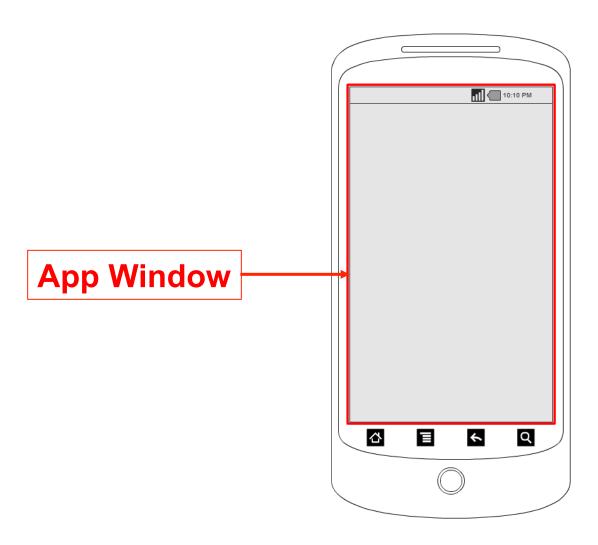


## Activity and It's Window

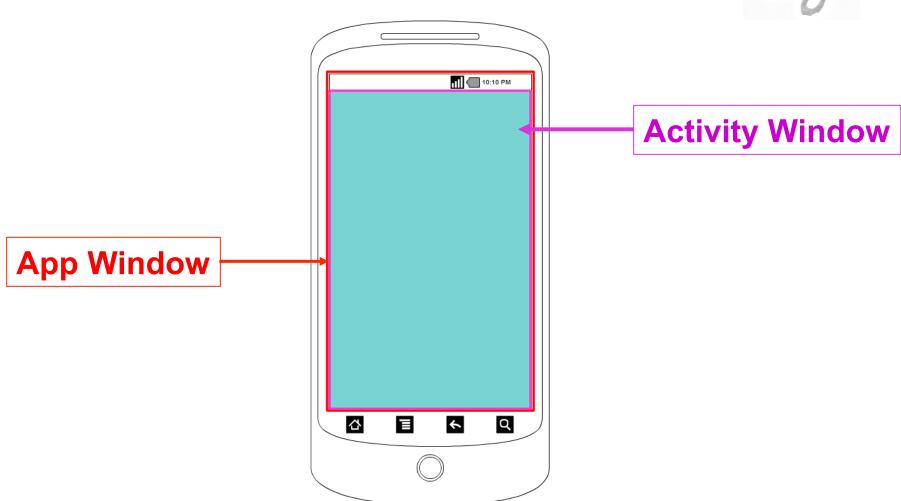




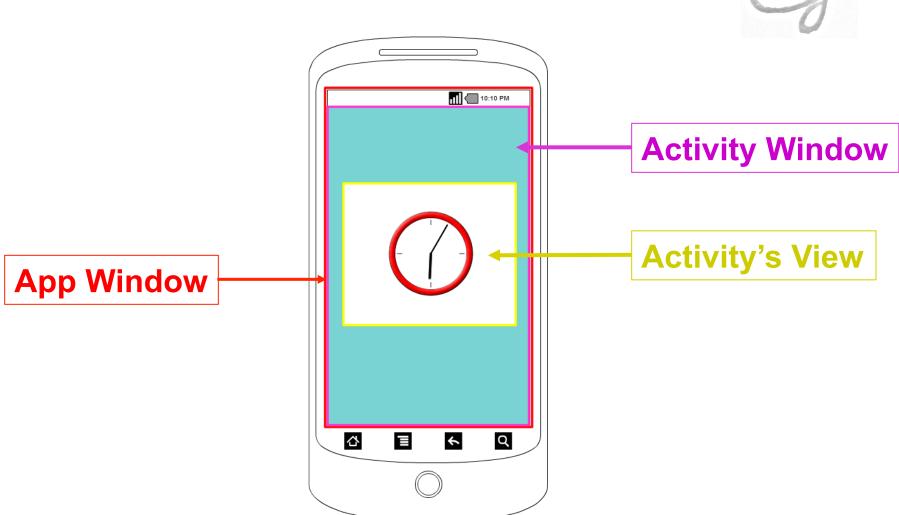












## Activity and It's Window



- Create a new window(PhoneWindow)
- Create a local WindowManager
- Add IWindow to WMS
- Set the Activity's Content View to Window
- Create a DecorView for the PhoneWindow
- Create a ViewRootImpl From Local WM
- Add the DecorView to the ViewRootImpl

#### Activity's Window





#### Activity's Window









LayerDim LayerBlur



#### Window个体的出现



纵向思维

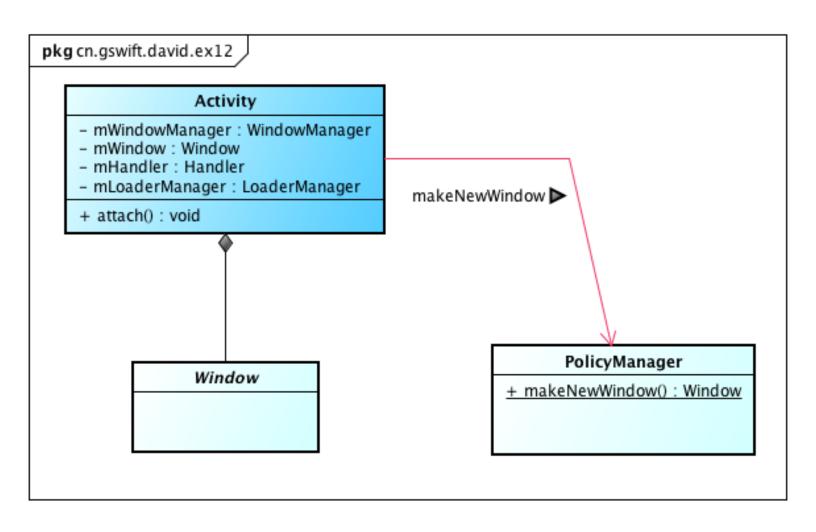


横向思维

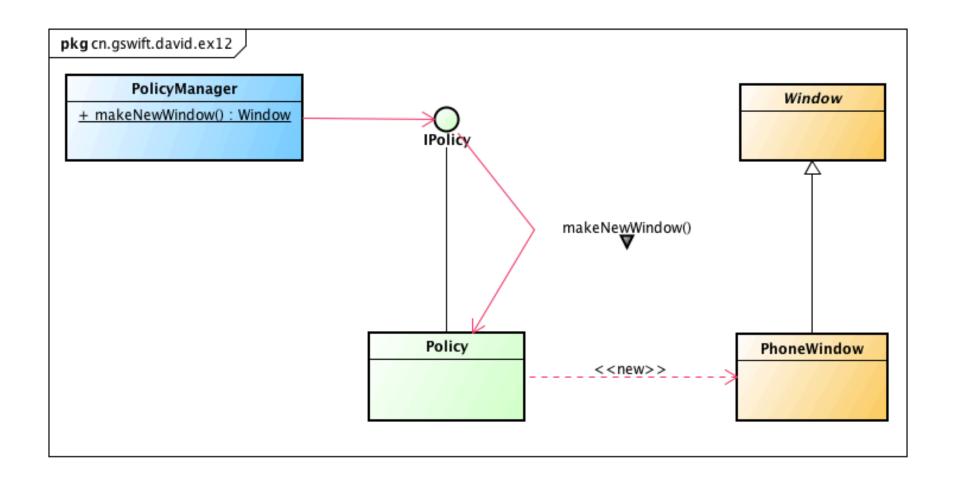


#### Create a new Window

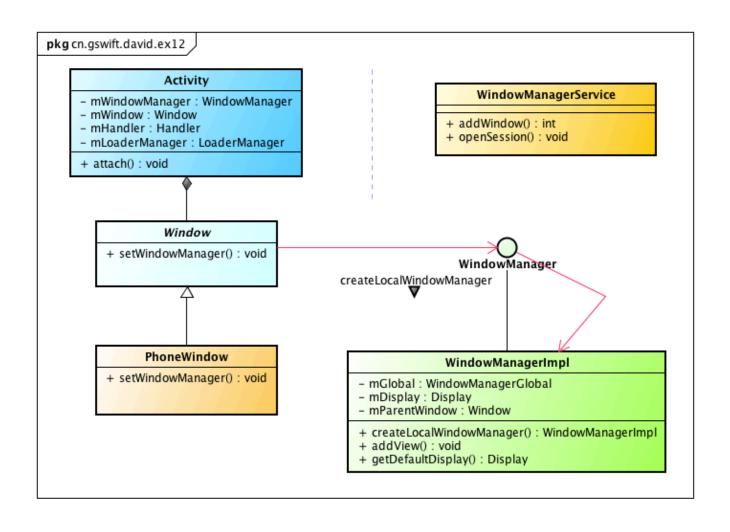




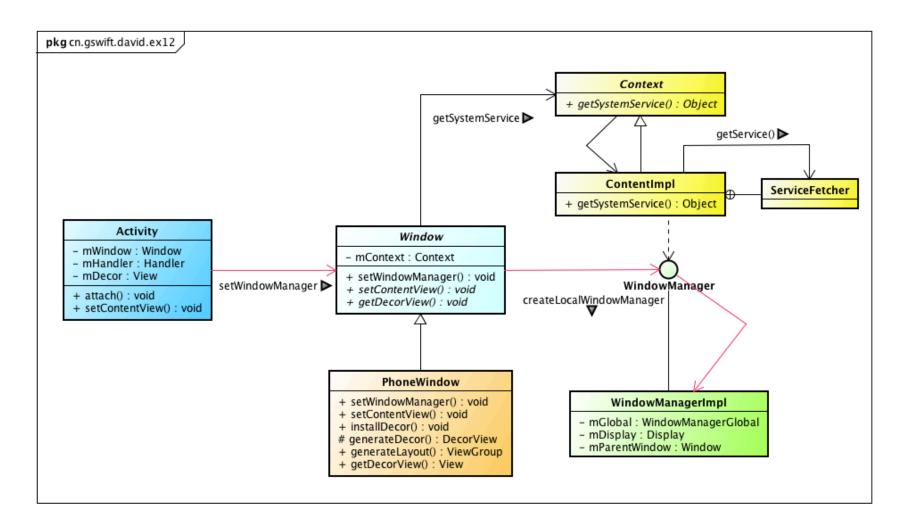
## Create a PhoneWindow Instance



## Create LocalWindowManager(1)

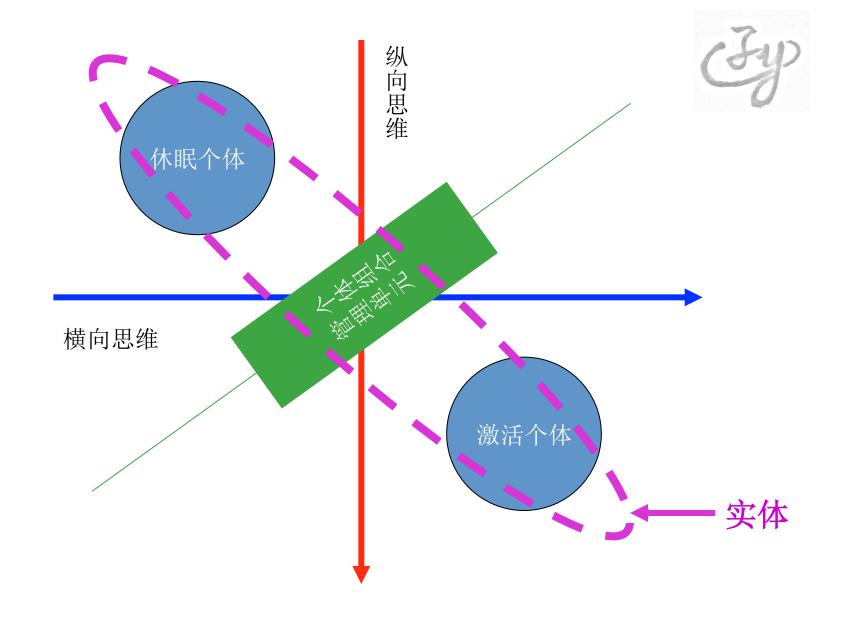


## Create LocalWindowManager(2)



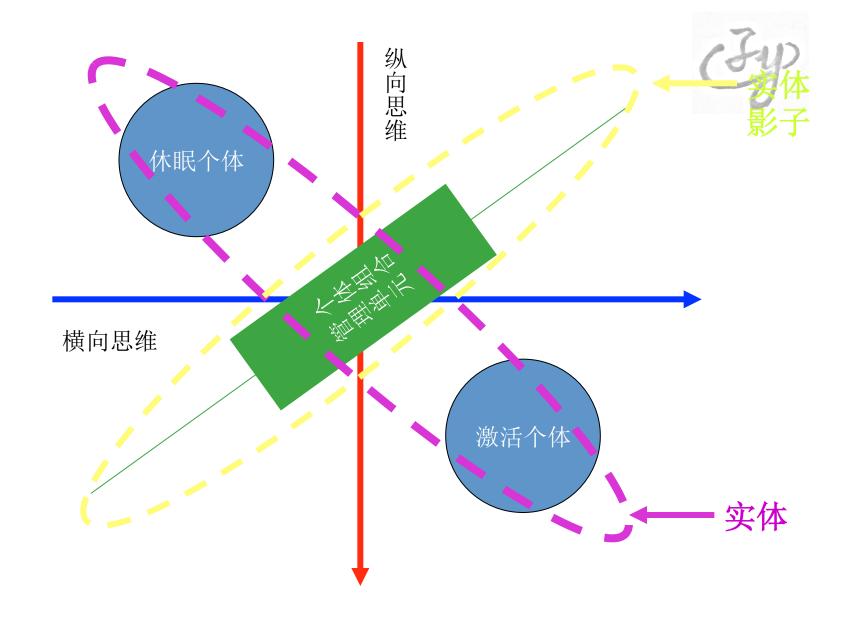


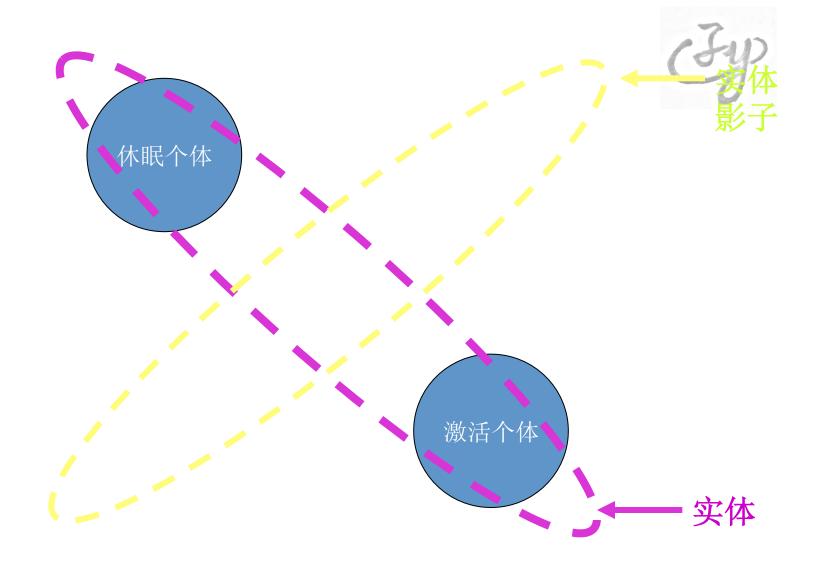
#### 对象休眠与单个对象的激活





#### 完成影子的隐射管理

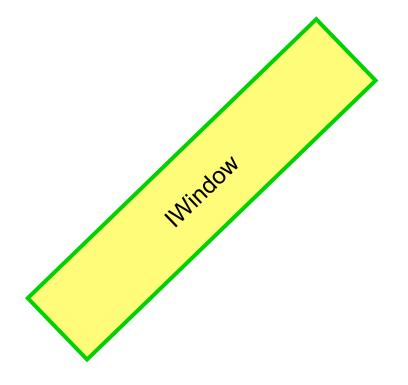




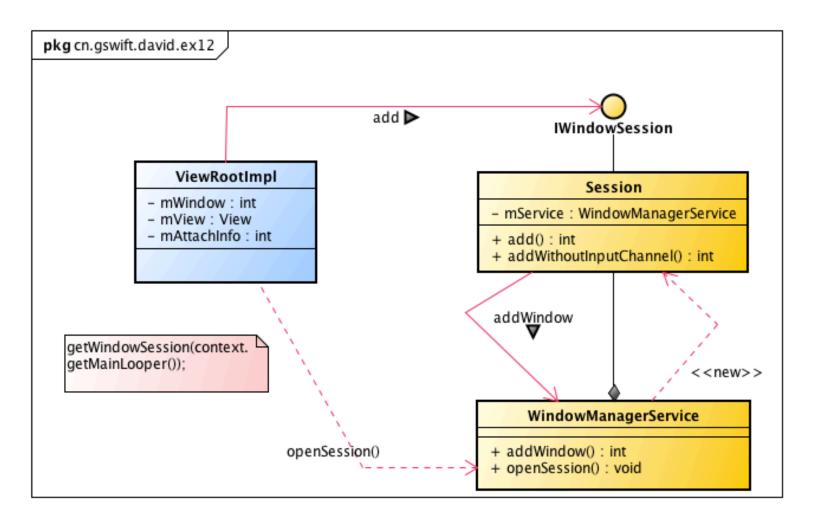


### 影子管理

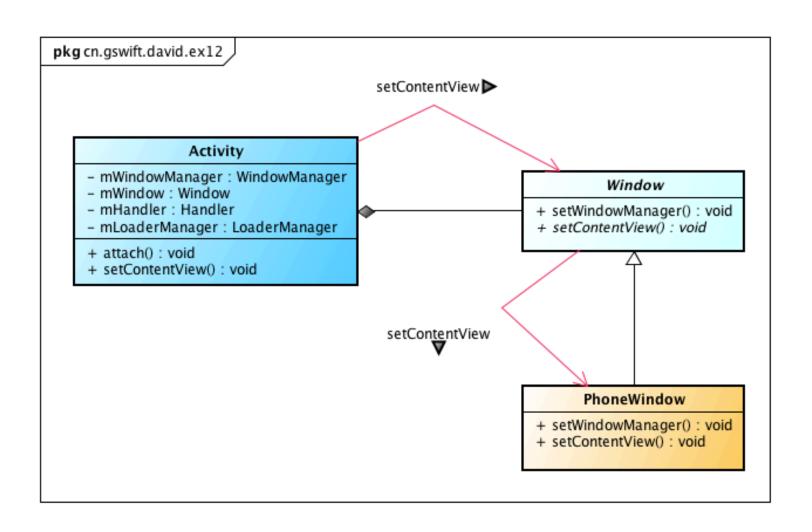






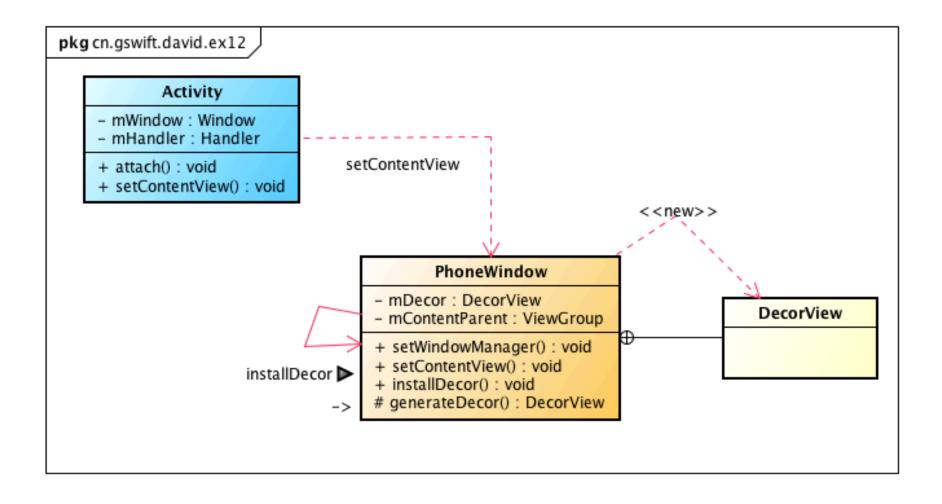


#### Set the Activity's ContentView to the Window

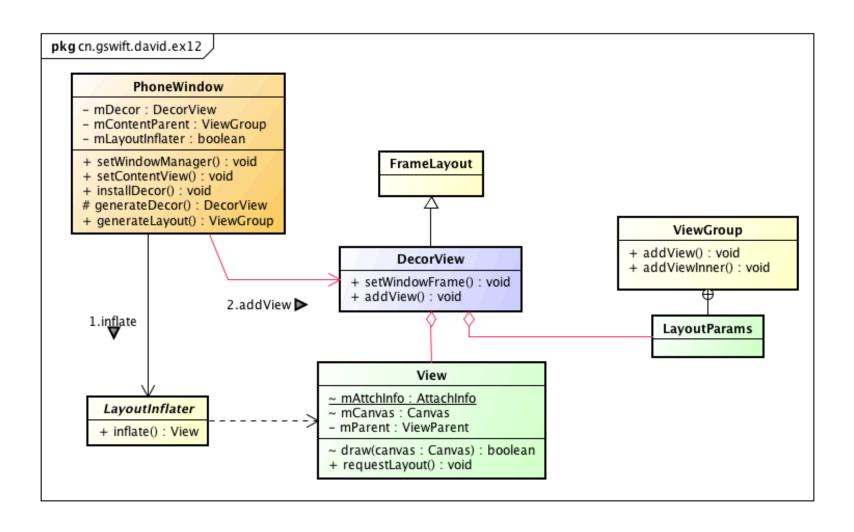


#### Action of setContentView

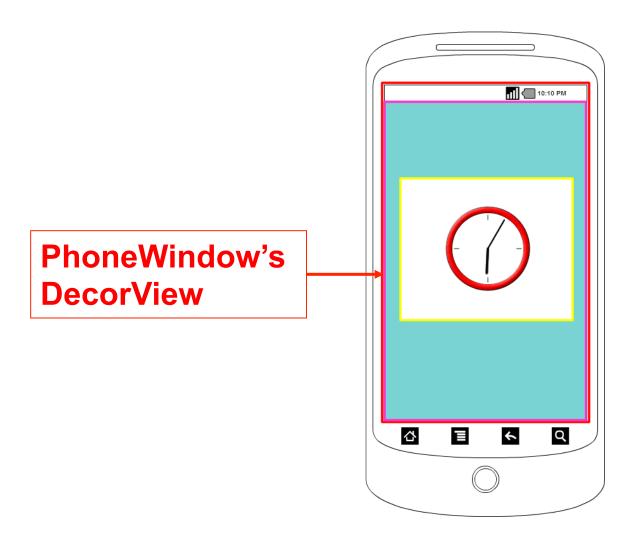




### Add the DecorView to the Window

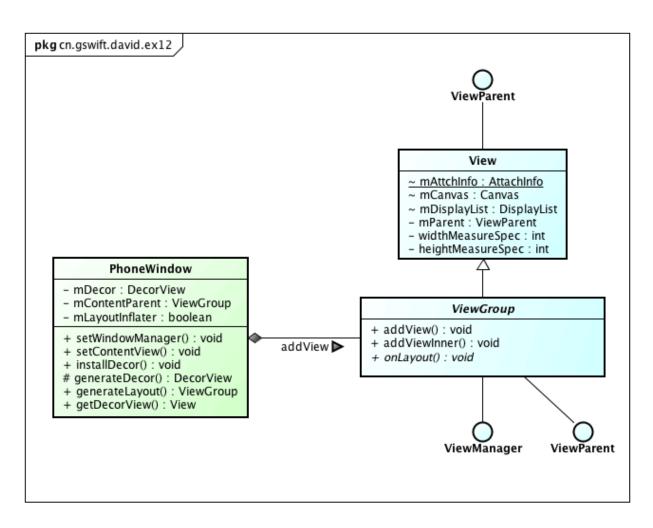




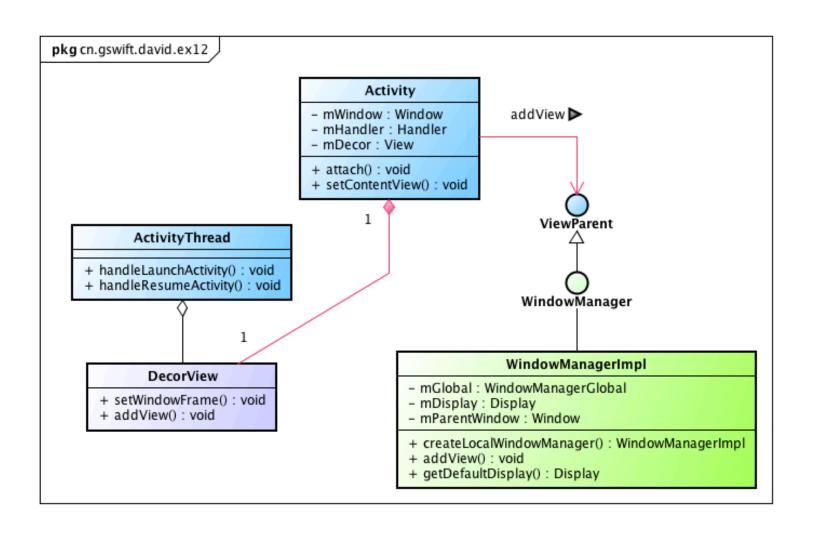


### PhoneWindow addView



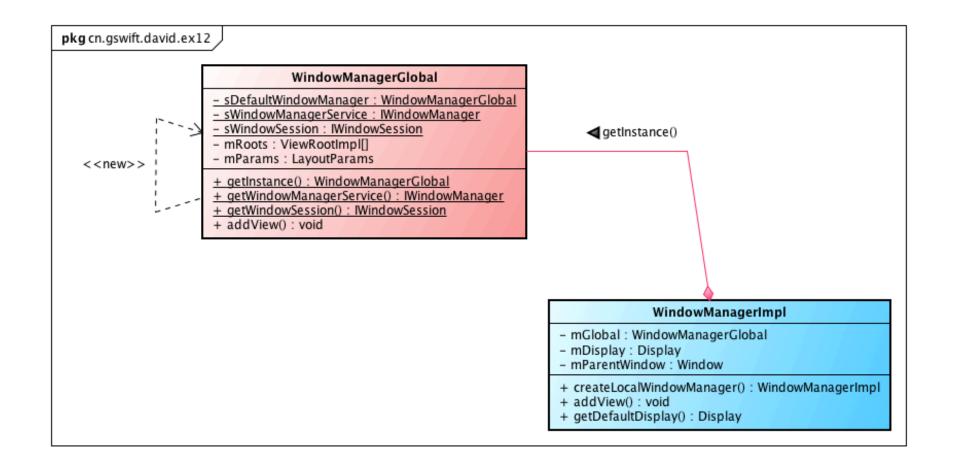


### Add view to local WindowManager

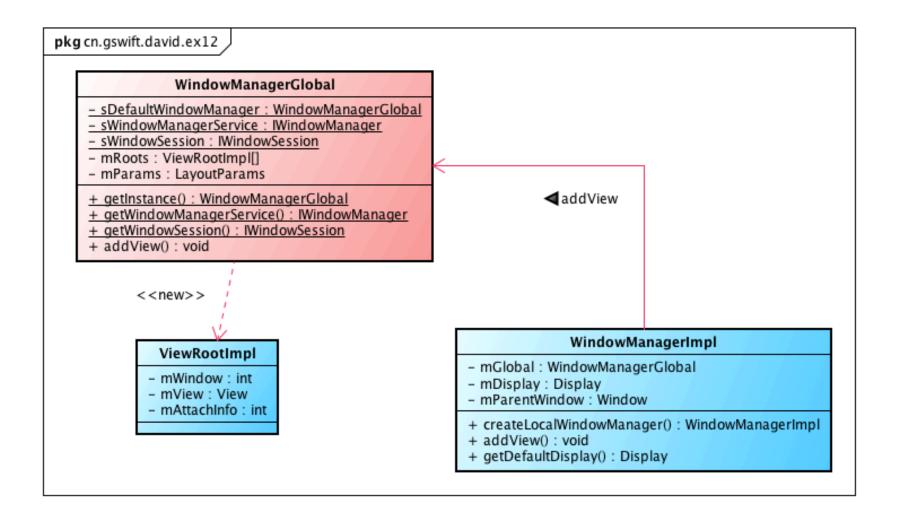


#### WindowManagerGlobal



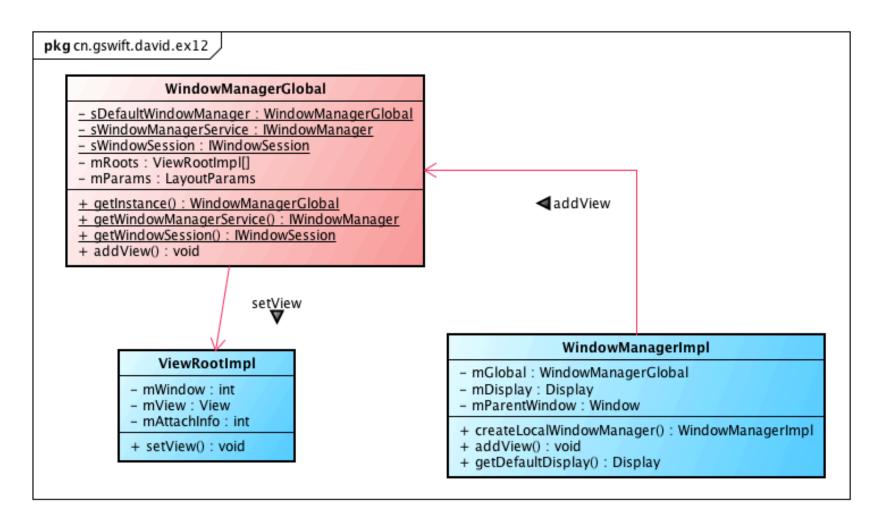


### Create a ViewRootImpl instance



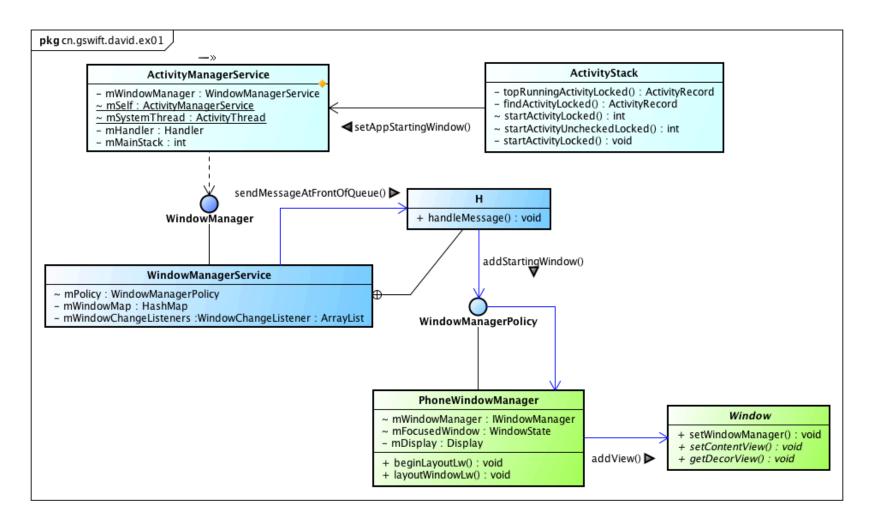
#### ViewRootImpl setView\*





## SetAppStartingWindow()







#### 参考资料:

Android4.2 <a href="http://code.metager.de/source/xref/android/4.2/">http://code.metager.de/source/xref/android/4.2/</a>

#### **About Me**



- I have been working as a product-designer specializing in software/Web application design and development. I am passionate about mobile application development and became interested in Android programming when the platform was launched by Google. Thus I was not programming on Android projects, I spent spare time reading technical blogs, researching, analyzing, and testing mobile applications, as a software consultancy specialized in android technologies.
- In my product-design time, in the developing, I've encountered too many program manage troubles that suffer due to poor communication and code design, I know that help them to understand the system framework is very important. I amd experienced in system and application layers, my goal is simple: help someone who wishes to better understand the **Android framework** in java、JNI and C/C++ libraries.
- Please also check my article and slides on this http://blog.sina.com.cn/gswift

Contact: Zhiyong.liu@aliyun.com



http://weibo.com/gswift