



# Gradle for Android and Groovy

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# Gradle Wrapper 入门

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- Gradle Wrapper 的作用
- Gradle Wrapper 初始化及升级
- 使用 Gradle Wrapper 运行构建基本任务



# Gradle for Android 入门

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- 构建生命周期
- 构建配置文件及结构

```
MyApp
|  -- build.gradle
|  -- settings.gradle
|  -- app
|      -- settings.gradle
```



# Gradle 插件

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## – 插件的继承关系

- Android Plugin extends Java Base Plugin
- Java Base Plugin extends Base Plugin



# Gradle Task 入门

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## – X Base Plugin的任务约定

- assemble: 集合项目的输出
- clean: 清理项目的输出
- check: 运行检查，通常是单元测试和集成测试
- build: 同时进行assemble 与check



# Android Gradle Tasks

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- **assemble**: 为每个构建版本创建一个APK
- **clean**: 删除所有的构建内容，包括APK
- **check**: 运行Lint检查，如果Lint检查发现问题则构建终止
- **build**: 同时进行assemble与check
- **Others.....**



A decorative graphic of a feather, rendered in a light beige color, is positioned on the left side of the slide. It has a detailed, textured appearance with many fine lines representing the barbs of the feather.

# Set Default Task

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- `defaultTasks 'clean', 'assDebug'`
- `./gradlew tasks |grep "Default tasks"`



# Dependencies

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## – 依赖类型

- compile
- apk
- provided
- xxxCompile





# 语义化版本及动态化版本

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– groupId:name:major.minor.patch

– +

➤ 22.2.+

➤ 22.2+

➤ +



# Variant

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- bulidType
  - 源集概念
  - 依赖配置 xxxCompile
- product flavor
  - flavorDimensions
  - flavor过滤器



# 多模块管理

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- java依赖
- library依赖
- 加速构建 `org.gradle.parallel=true`
- 模块耦合 `allprojects`



# Groovy 入门

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- “Gradle 就是Groovy”
- 完全兼容Java
- 类与成员变量
- 动态编程

```
def method='toString'  
println(new Date()."$method"())
```



# 方法

---

```
def squre(def num){  
    num * num  
}
```

```
squre 4
```



# 闭包

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```
def squre = { num ->  
    num * num  
}
```

squre 4

```
def squre = {  
    it * it  
}
```

squre 4

# 回到 Gradle for Android

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```
apply plugin: 'com.android.application'
```

```
project.apply([plugin: 'com.android.application'])
```

```
dependencies {
```

```
    compile 'com.android.support:appcompat-v7:25.1.0'
```

```
}
```

```
project.dependencies({
```

```
    dependencies.add('compile','com.android.support:appcompat-v7:25.1.0')
```

```
})
```





# 自定义Task

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- task
- <<
- 任务剖析
  - doFirst
  - doLast
  - mustRunAfter
  - dependsOn

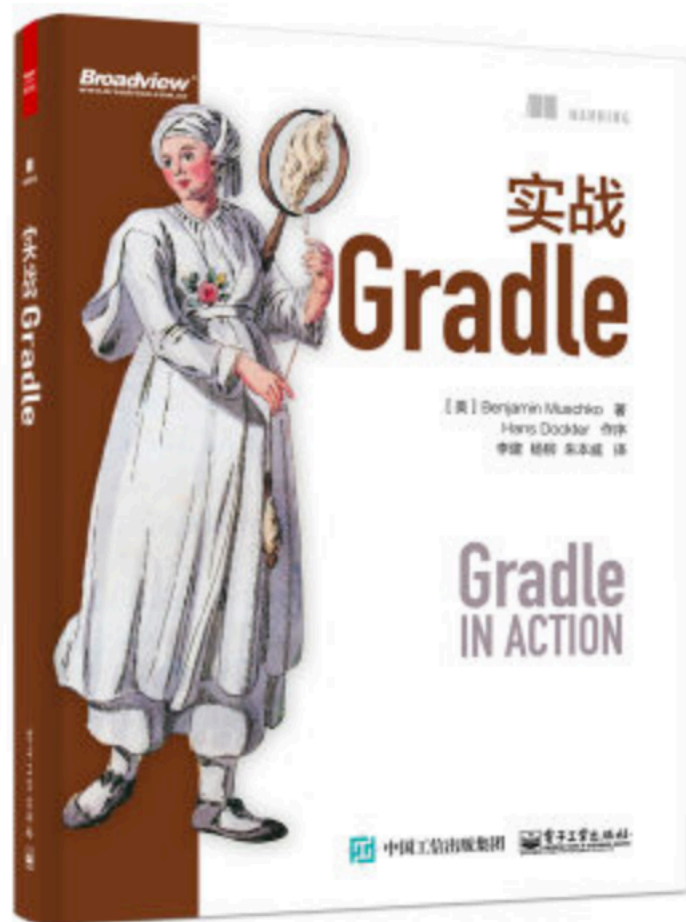


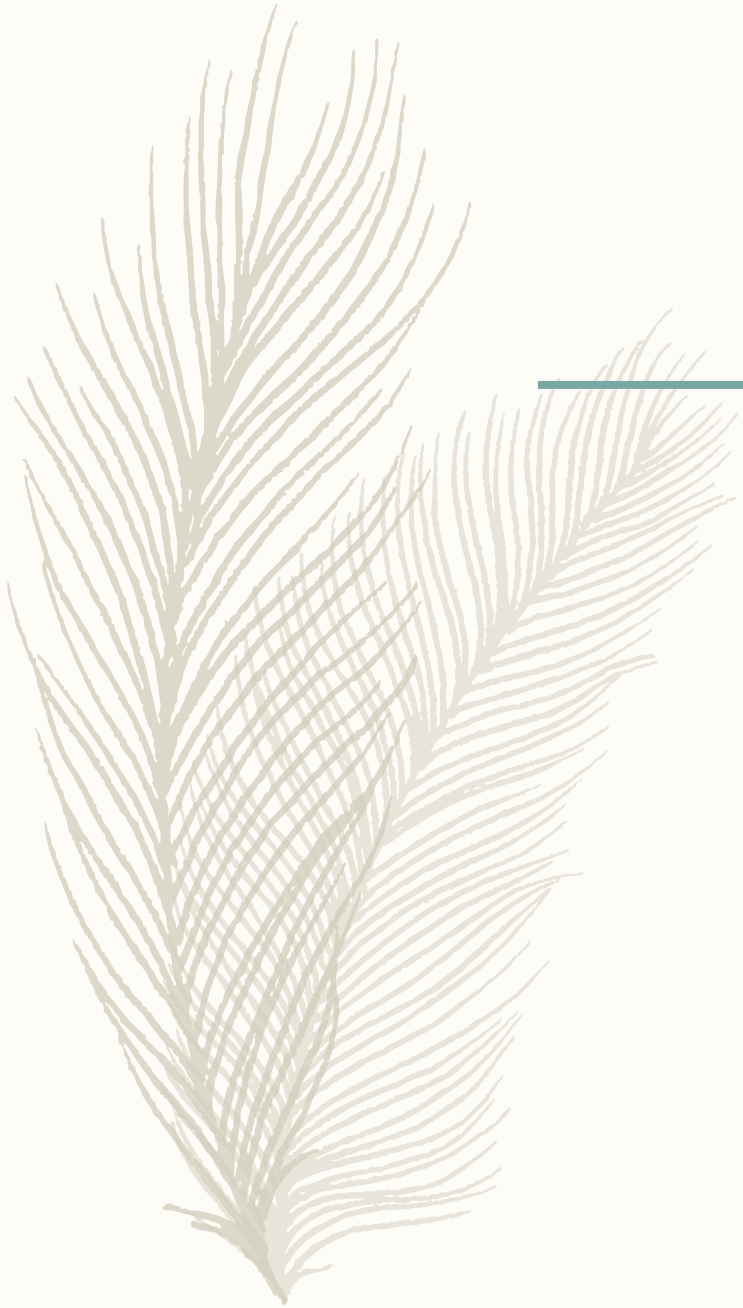
# 简单的应用： 使用task打开Settings

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```
task openSetting << {  
    exec {  
        def adb = android.getAdbExe().toString()  
        executable = "$adb"  
        args = ['shell', 'am', 'start', '-n',  
            'com.android.settings/com.android.settings.Settings']  
    }  
}
```

# Good Books





Thank you.