
Overview of the Android Application Framework & Packaged Applications

Android Application Framework



- Provide services that are essential to the Android platform

See sites.google.com/site/io/inside-the-android-application-framework

Android Application Framework



- Provide services that are essential to the Android platform
- **Window Manager**
 - Manages top-level window's look & behavior
- **View System**
 - Lists, grids, text boxes, buttons, etc.
- **Content Providers**
 - Inter-application data sharing
- **Activity Manager**
 - Application lifecycle & common navigation stack
- **Package Manager**
 - Manages application packages
- **Telephony Manager**
 - State of telephony services
- **Resource Manager**
 - Manages non-code resources: strings, graphics, & layout files
- **Location Manager**
 - Access to system location services
- **Notification Manager**
 - Notify users when events occur

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Application framework(s) heavily use Android Java concurrency (& communication) capabilities

Packaged Applications

Java/JNI



- Standard apps reside in packages/apps, e.g.
 - **Home**
 - Main screen
 - **Contacts**
 - Contacts database
 - **Calendar**
 - Track schedules
 - **Camera**
 - Take photos & videos
 - **Phone**
 - Dial phone numbers
 - **Browser**
 - View web pages
 - **Email reader**
 - Gmail & others
 - **Media player**
 - Play songs & watch movies
 - **SMS/MMS**
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All packaged apps are written using Java
(Android uses many JNI calls to C/C++)

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