

Working with Android Tools and Testing

WORKING WITH THE CORE TOOLS AND FEATURES



Jim Wilson

MOBILE SOLUTIONS DEVELOPER & ARCHITECT

@hedgehogjim blog.jwhh.com



What to Expect from This Module



Android Studio Overview

Developer Productivity

Program Execution and Debugging

Instant Run

Resolving Unhandled Exceptions

Logcat



Android Studio



Primary Android development tool

Handles installing the things we need

- Android SDK
- JDK
- Other Android development tools

Built on IntelliJ IDEA technology



Android Studio



Code development & UI design

Developer productivity

Code deployment and execution

Debugging

Build system

Testing





Logcat

- System for recording log information

Log class

- Provides methods for writing to logcat
- Includes a tag with each message
 - Commonly use class name as tag

Android Monitor

- Displays logcat messages
- Filterable
- Searchable





Messages are organized into levels

- Indicates relative severity

Log class

- Provides methods for each level

Viewing messages

- Messages are labeled with level
- Can limit which levels are displayed
- Shows messages \geq selected severity

Logcat Levels



More Inclusive

Level	Label	Log Method
Verbose	V	Log.v
Debug	D	Log.d
Info	I	Log.i
Warning	W	Log.w
Error	E	Log.e
Assert	A	Log.wtf

More Severe



Summary



Android Studio

- Central tool for Android development

Developer Productivity

- Refactoring
- Code generation
- Customizable to developer style



Summary



Program execution and debugging

- Handles installing and running app
- Breakpoints and code stepping
- Viewing variables
- On-the-fly statement evaluation

Instant Run

- Accelerates deploying code changes
- Does just enough to apply changes
- Often allows app to keep running



Summary



Resolving unhandled exceptions

- Crash information in Android Monitor
- Shows exception and call stack
- Provides links to app source code lines

Logcat

- System for recording log information
- Written to with Log class
- Viewable in Android Monitor

