

# Android Advanced Dev Using Mono Android 4

page 1

**Meet the expert:** Wallace McClure specializes in building applications that have large numbers of users and large amounts of data as well as user interface specific technologies such as AJAX, iPhone, and Android. He is a Microsoft MVP, ASPInsider, and a partner in Scalable Development, Inc. Wally has authored books on iPhone Programming with Mono/MonoTouch, Android Programming with Mono for Android, application architecture, ADO.NET and SQL Server, and finally AJAX.

**Prerequisites:** This course assumes that you are comfortable developing applications using Visual Studio 2010 and C#. Mono Android requires Visual Studio 2010 Professional or higher (and will not work with Visual Studio Express editions).

**Runtime:** 05:16:14

**Course description:** This course is about how to use Mono for Android with Tablets and the new Android 4.0 Ice Cream Sandwich release. The course introduces Android Tablets and Fragments, new controls that are available through Android 4.0, and new application programming interfaces in Android 4.0, and in new features available in the Google Android SDK Release 17 that can improve their development experience. This course also contains a module on the Android Design Experience, what developers can use to improve the user experiences, design suggestions from Googles Android team, and some thoughts on how to improve the design experience via software code.

## Course outline:

### Introduction

- Introduction
- Android Operating System
- Android Tablets
- What Is/Is not a Tablet
- Supporting Multiple Screens
- Declaring Screen Size Support
- Demo:Additional Screen Layout
- Summary

### Tablets and Fragments

- Introduction
- Fragments
- Fragment Design Philosophy
- Fragment Design in a Phone
- Creating a Fragment
- Classes you can inherit from
- Fragment Lifecycle
- Adding Fragment to an Activity
- Demo:Application with Fragment
- Demo: Activity
- Demo: Frag1
- Demo: OnCreateView
- Demo: 2nd example
- Demo: Inside Frag1
- Demo: Selecting an Item
- Summary

### Fragment Manager

- Introduction
- Programmatically add Fragment

- Manage Fragments
- Fragment Transactions
- Demo: Fragment Transactions
- Demo: Running Fragments
- Summary

### Action Bars

- Introduction
- ActionBar
- Tips for the ActionBar
- Adding ActionBar
- Removing the Action Bar
- Adding Action Items
- Choosing Action Items
- Split Action Bar
- Split Action Bar Display
- App Icon for Navigation
- Demo: ActionBar Sample
- Demo: Menu Item Selected
- Demo: Tabbed Interface
- Demo: Split View
- Guidelines for Tablet UIs
- Resources
- Summary

### Android ICS Introduction

- Introduction
- What is Android 4.0
- New Items in Android 4.0
- Mono for Android Support
- Project Properties

- Android Manifest Tab
- Result
- GridLayout
- Configuration on the Layout
- Demo: GridLayout
- Demo: GridLayout XML
- Demo: GridLayout Activity
- Summary

### PopupMenu and Switch

- Introduction
- Popup Menus
- What is a PopupMenu
- Create a Menu
- Switch
- Properties for Switch
- Demo: PopupMenu
- Demo: PopupMenu XML
- Demo: Menu Item Click Events
- Demo: Switch
- Demo: Run Switch
- Summary

### Texture View and Camera

- Introduction
- Camera Class
- TextureView
- Potential pitfalls
- Demo:Texture View Example
- Summary

### Calendars

- Introduction

- Calendar API
- Permissions
- Calendar Contract
- Enumerate Calendars
- Calendar Columns
- List Calendars
- Listing Calendar Events
- Calendar Event Activity
- Bind data to UI
- ViewBinder
- Add a Calendar Event
- Demo: Calendar Entry
- Demo: Visual Studio Application
- Demo: Adapters
- Demo: Create cursor
- Demo: View Binder
- Demo: Add Entries
- Summary

### Share Action Provider

- Introduction
- Share Action Provider
- Inflate Menu
- Demo:Share Action Provider
- Demo:Reference into Menu
- Summary

### x86 Debugging

- Introduction
- Debugging Challenges
- Debugging

(Continued on page 2)

# Android Advanced Dev Using Mono Android 4

page 2

- Installation
- Installation Extras
- Emulator Setup
- X86 Acceleration
- Notes:
- Demo:X86 Emulator
- Demo:Debugging
- Summary
- Action Bar Elements
- Action Bar Checklist
- Notifications
- Writing Style
- Pure Android
- Spinners
- Text Fields
- User Feedback
- Pickers
- Downloads
- Summary

## **Pictures and Video**

- Introduction
- Photo and Video Generalities
- Taking Picture
- Playing Video
- Recording Video
- Demo:Taking Pictures
- Demo: Code for Pictures
- Demo:Playing Video
- Demo:Recording Video
- Summary

## **Asset Studio**

- Introduction
- Problem Statement
- Android Asset Studio
- Launcher Icon
- Menu Icons
- Tab Icons
- Notification Icons
- Lets switch over
- Demo:Launcher Icon
- Demo:Menu Icon
- Demo:Tab Icon
- Demo:Notification Icon
- Demo:Directory for Images
- Demo:Example of Icons
- Demo:Coding Sample for Icon
- Demo: Setup in Menu
- Demo: Using the Tabs
- Summary

## **Design Studio**

- Introduction
- Android Design
- Themes
- Other Touch Feedback
- Demo:Scrolling List View
- Demo:OnScroll Method
- Summary

## **Design Studio Continued**

- Introduction
- Metrics and Grid
- 48 Display Pixels
- Colors
- Iconography
- Action Bar