



Dev Days

#XamarinDevDays

Native iOS & Android Development with Xamarin

Presenter Name
Presenter Twitter
Presenter Title

Xamarin – Your Complete Mobile Solution



Develop



Test



Build



Distribute



Monitor

Overview

ALL RESULTS

Recorder Test

New Test 8

- Tapped on view with class: AppCompatActivity 6
- Tapped on view with class: EditText
- Tapped on view with class: AppCompatActivity
- Tapped on view with class: ... 1

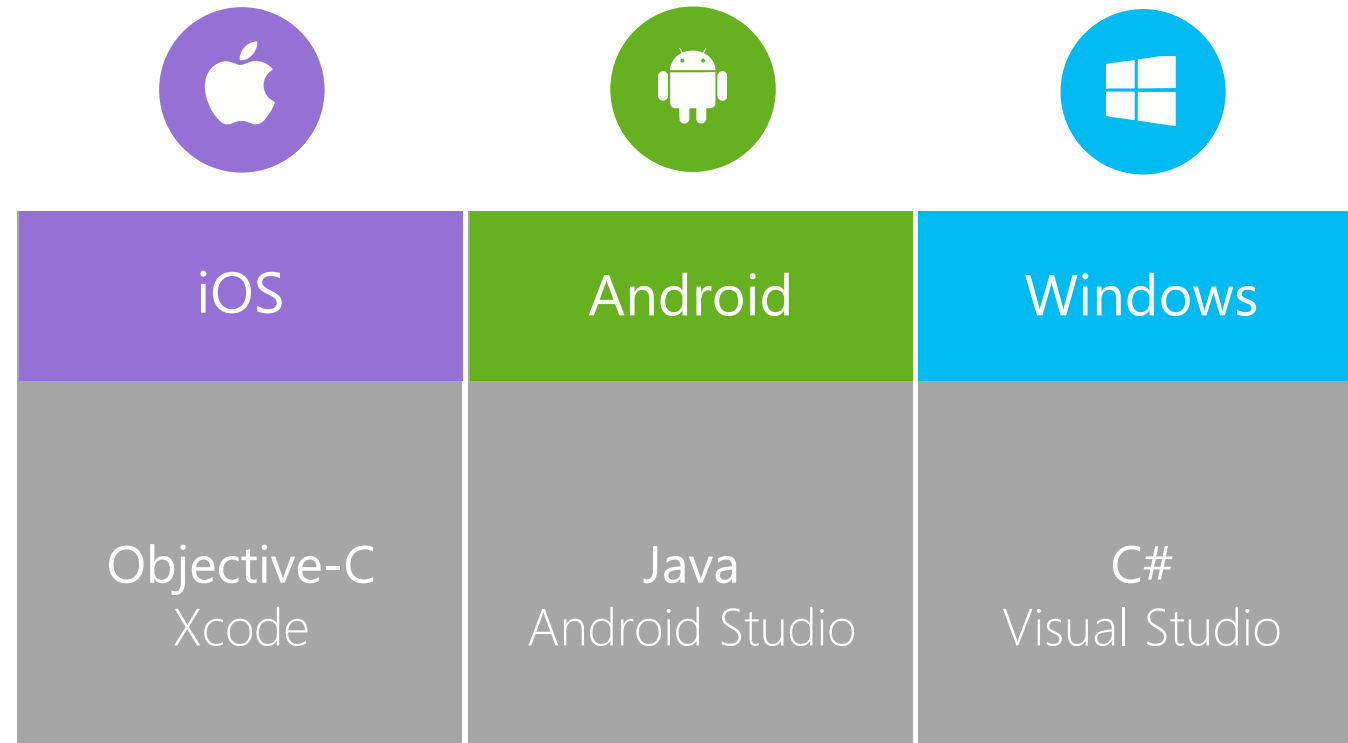
RECORDER TEST
ScrollToEvent[AppView: Class=Xamarin.TestRec...

Filter devices

HTC One A9 Android 6.0.1	Huawei Nexus 6P Android 6.0.1	LG Nexus 5X Android 6.0.1	Samsung Galaxy S6 Android 5.1.1	HTC One M9 Android 5.0.2	Samsung Galaxy S6 Ed... Android 5.0.2	Samsung Galaxy S5 Android 5.0	Samsung Galaxy Note ... Android 4.3

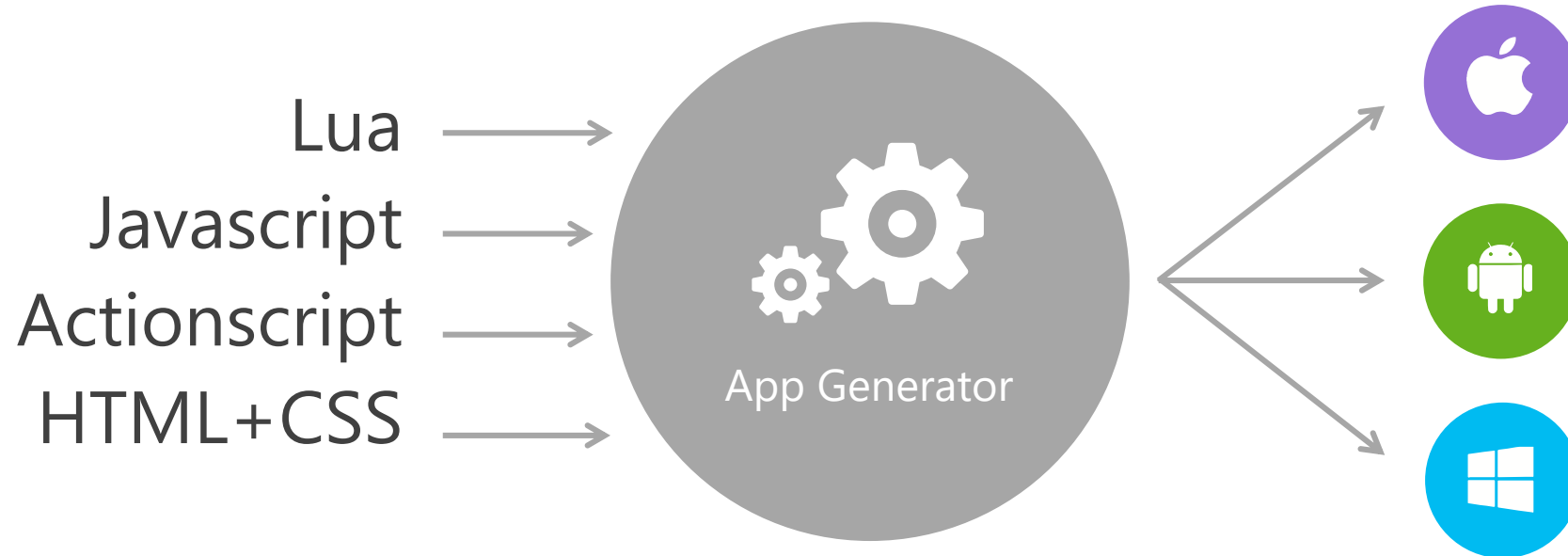
Architecting Mobile Apps

Silo Approach



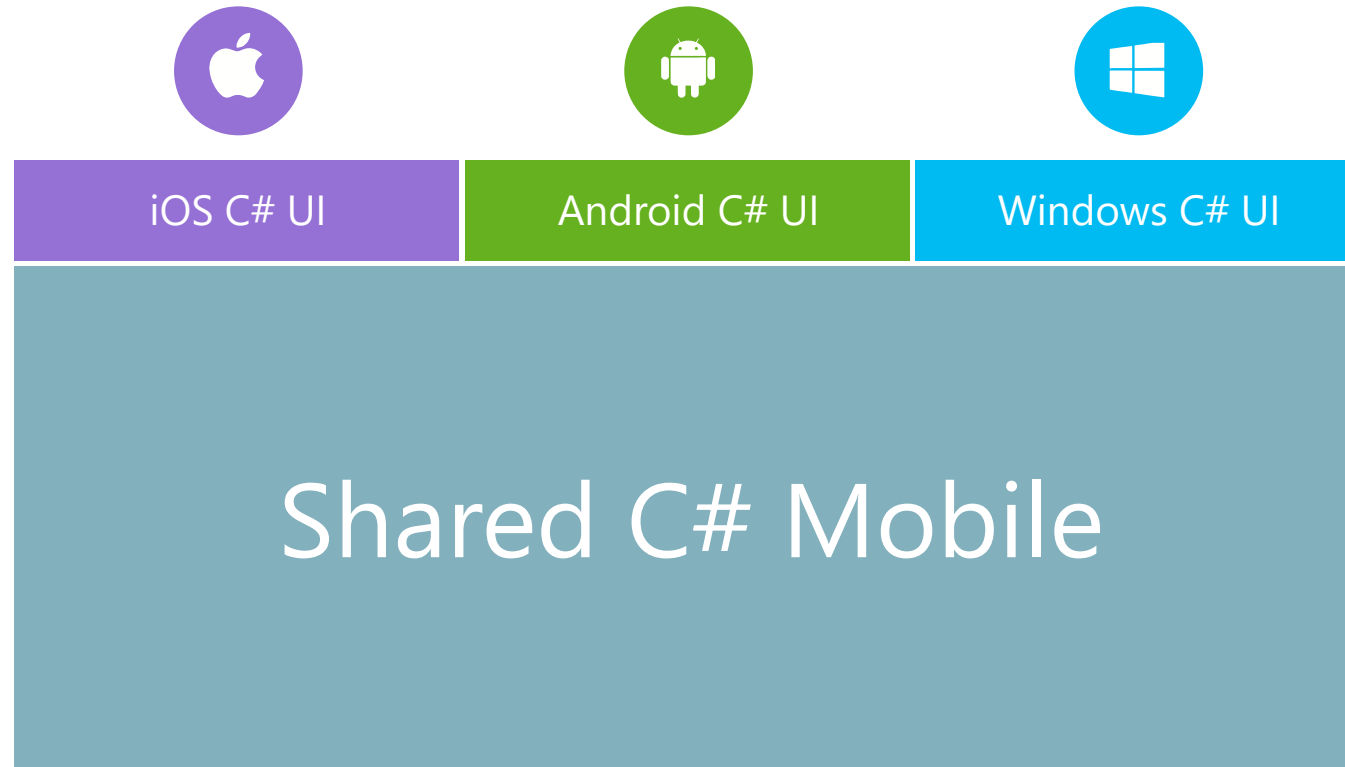
No shared code • Many languages & development environments • Multiple teams

Write Once, Run Anywhere



Limited native API access • Slow performance • Poor user experience


Xamarin's Unique Approach



Shared C# codebase • 100% native API access • High performance

Windows APIs

Microsoft.Phone	Microsoft.Networking	Windows.Storage	Windows.Foundation	Microsoft.Devices
System.Net	System	System.IO	System.Linq	System.Xml
System.Data	System.Windows	System.Numerics	System.Core	System.ServiceModel



C#

iOS – 100% API Coverage

MapKit	UIKit	iBeacon	CoreGraphics	CoreMotion
System.Net	System	System.IO	System.Linq	System.Xml
System.Data	System.Windows	System.Numerics	System.Core	System.ServiceModel

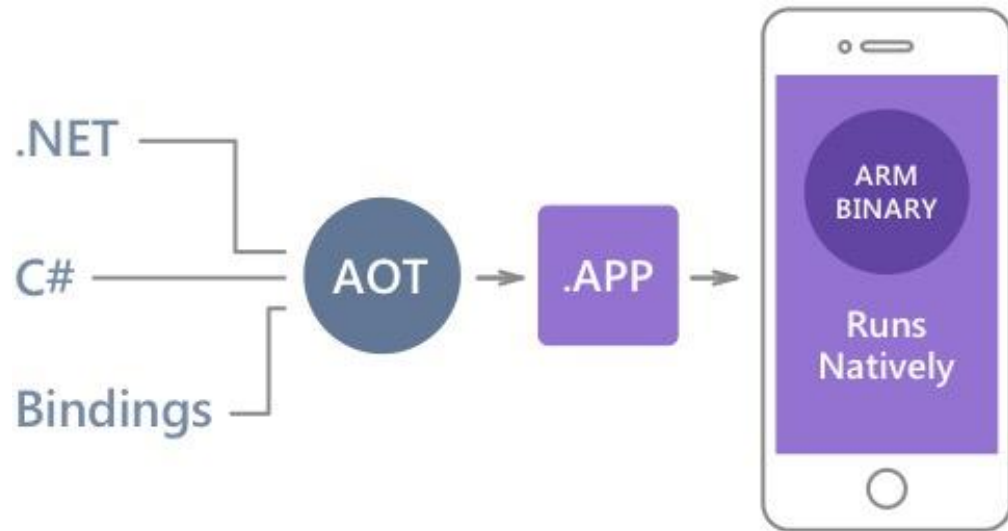
C#

Android – 100% API Coverage

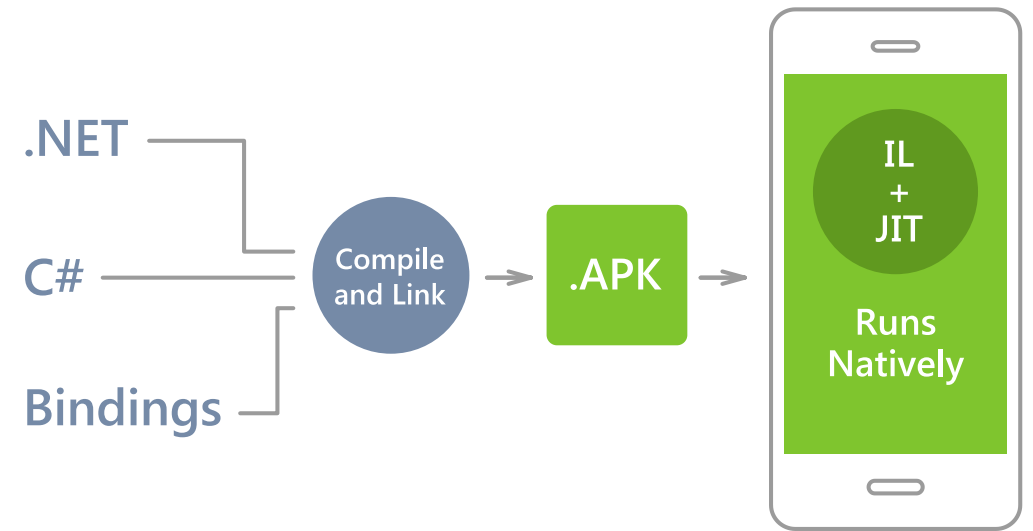
Text-to-speech	ActionBar	Printing Framework	RenderScript	NFC
System.Net	System	System.IO	System.Linq	System.Xml
System.Data	System.Windows	System.Numerics	System.Core	System.ServiceModel

C#

Native Performance

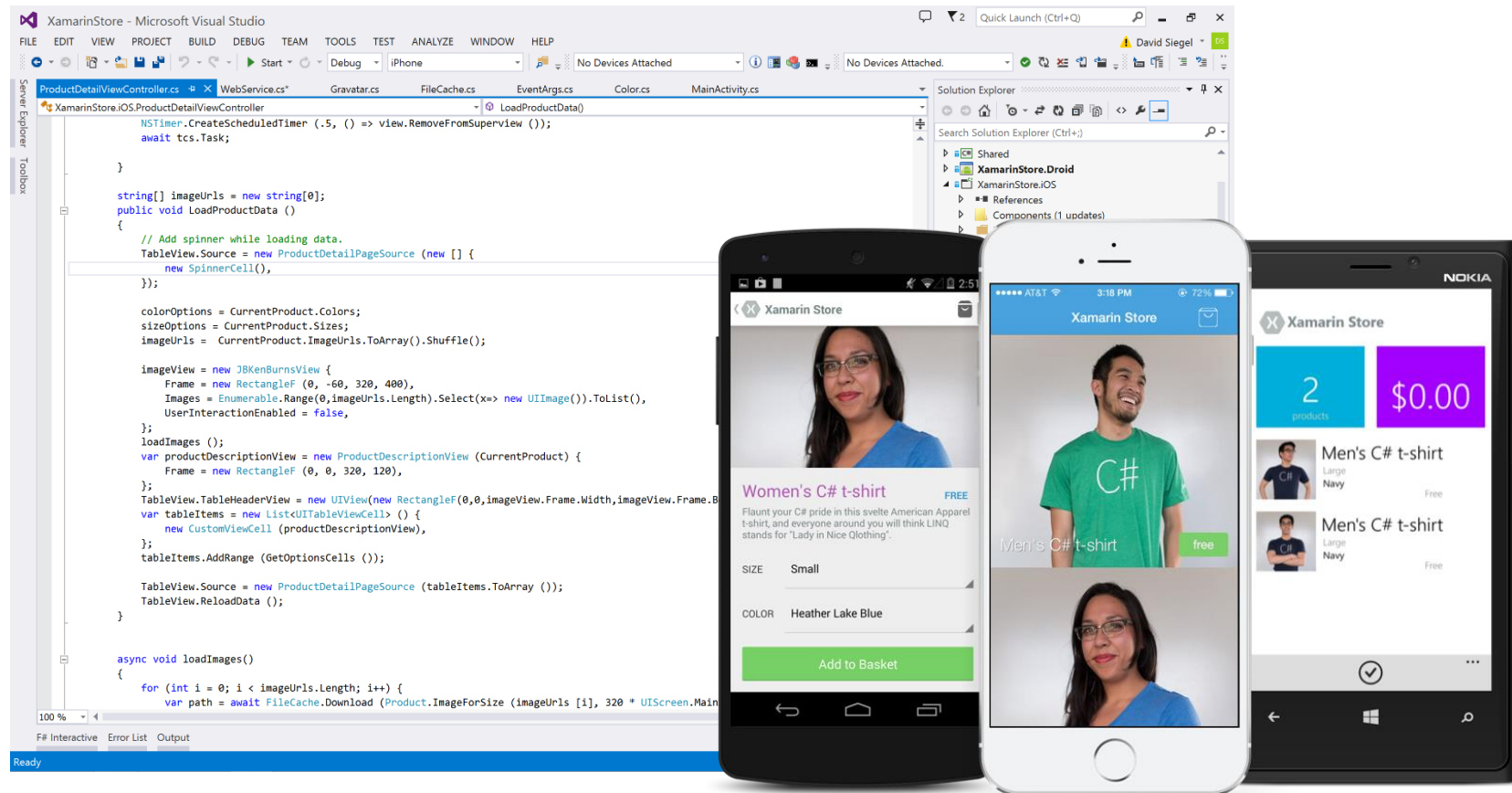


Xamarin.iOS does full Ahead Of Time (AOT) compilation to produce an ARM binary for Apple's App Store.



Xamarin.Android takes advantage of Just In Time (JIT) compilation on the Android device.

Anything you can do in Objective-C, Swift, or Java can be done in C# and Visual Studio with Xamarin.



✓ Always Up-to-Date

Same-day support:

- iOS 5
- iOS 6
- iOS 7
- iOS 7.1
- iOS 8
- iOS 9

Full support for:

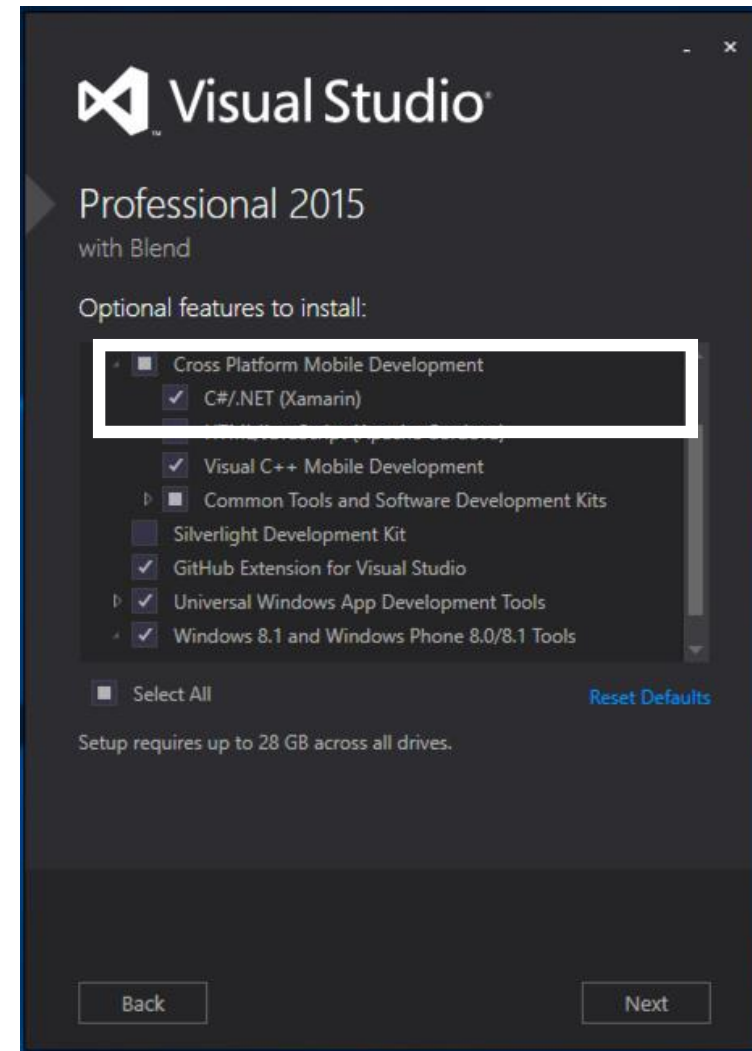
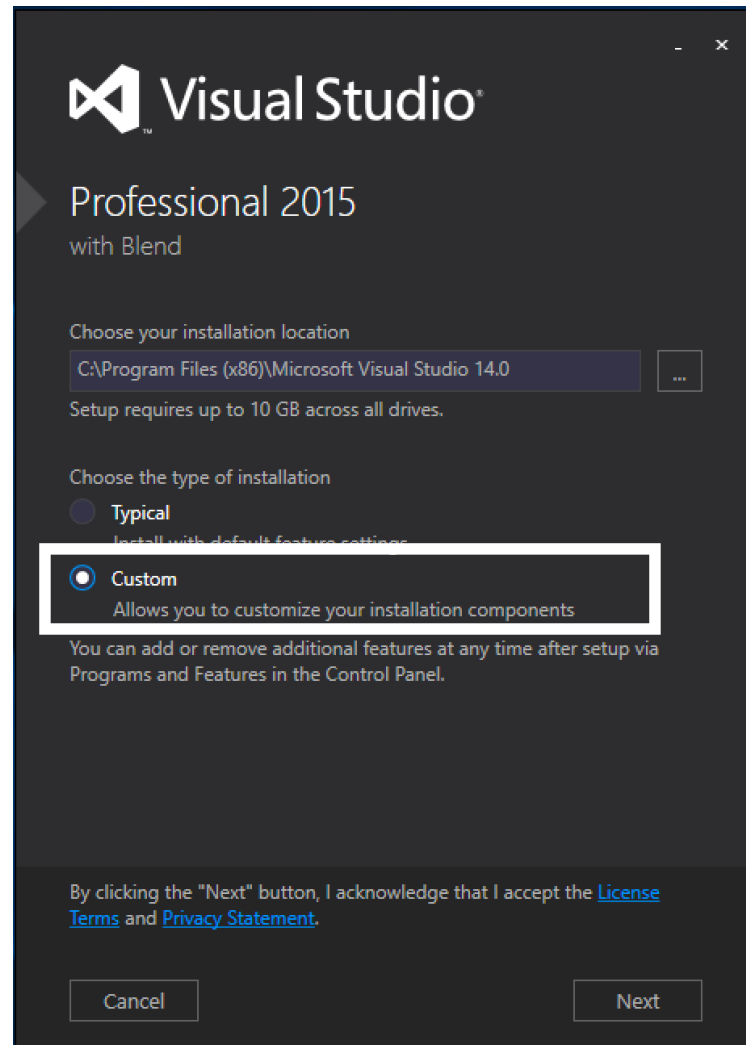
- Apple Watch
- Android Wear
- Amazon Fire TV
- Google Glass
- and much more

Development Experience

Xamarin is included in
Visual Studio

Including Community Edition!

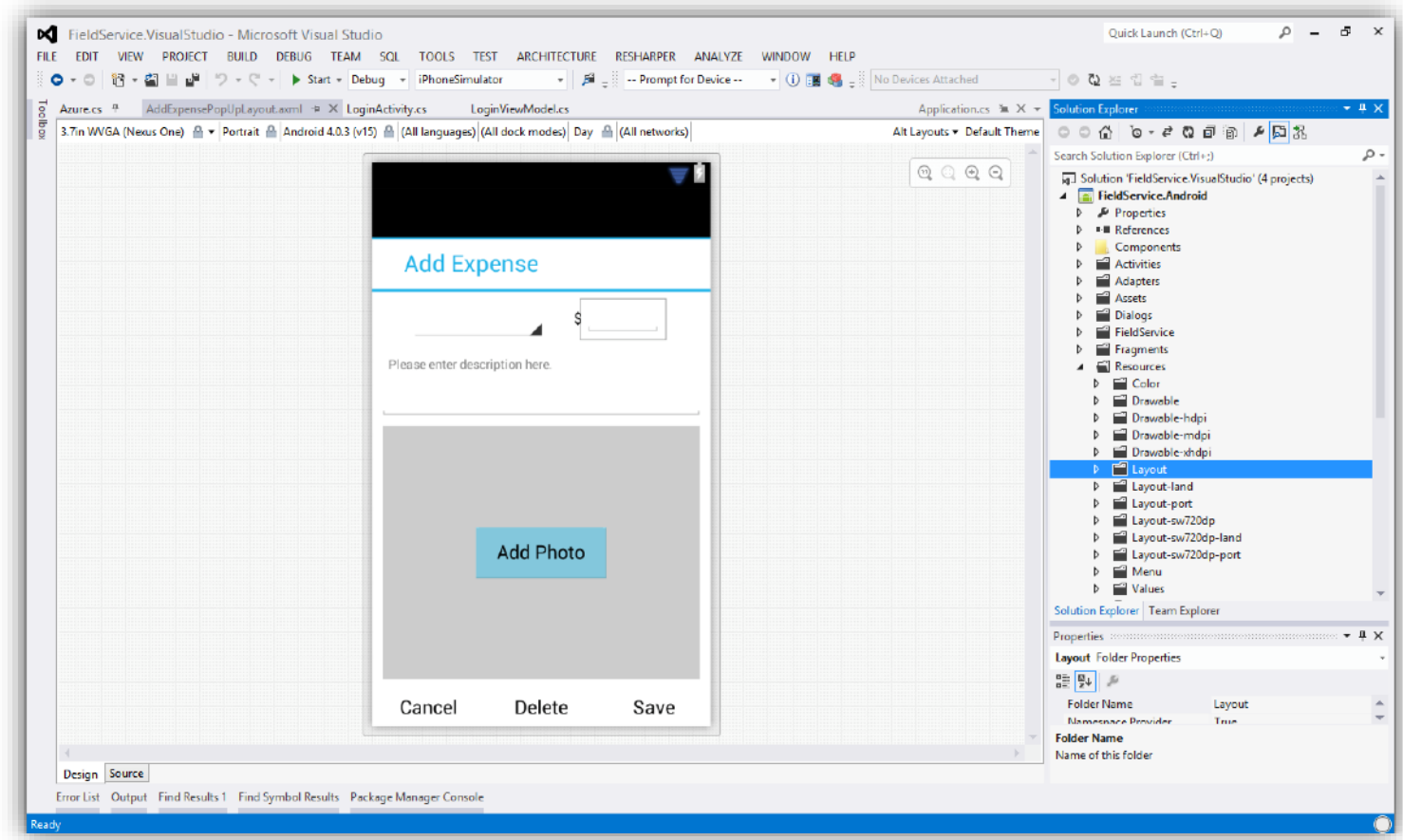
Visual Studio Integration



Xamarin.com/Download

Android Designer

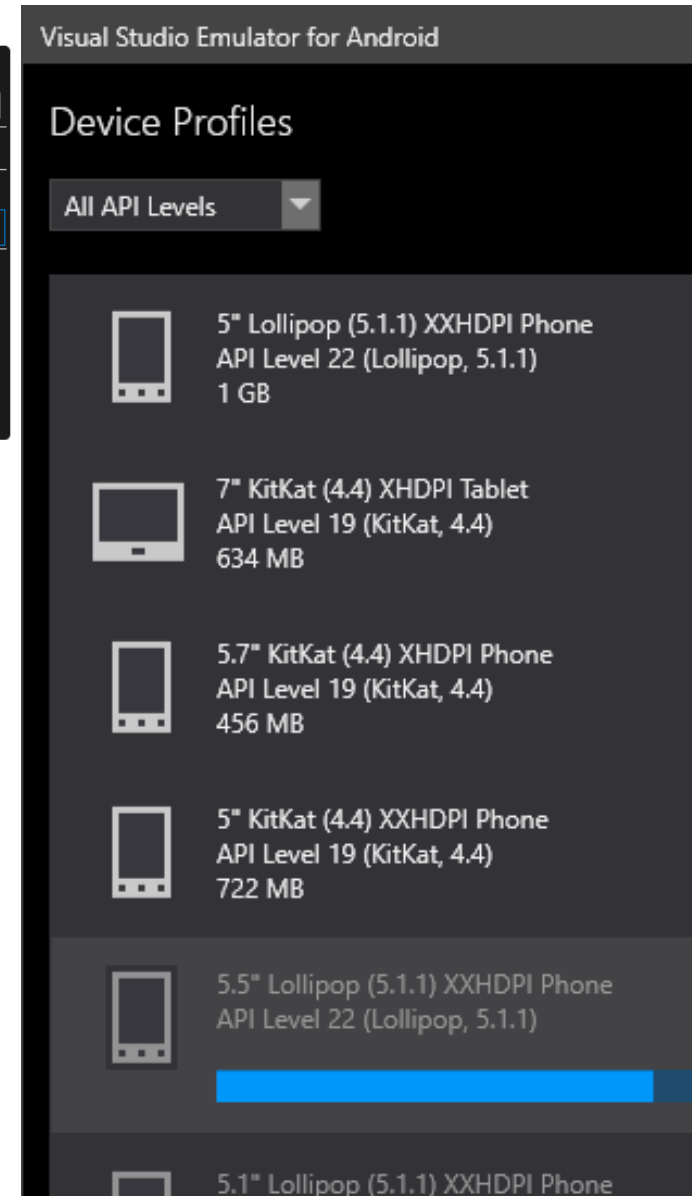
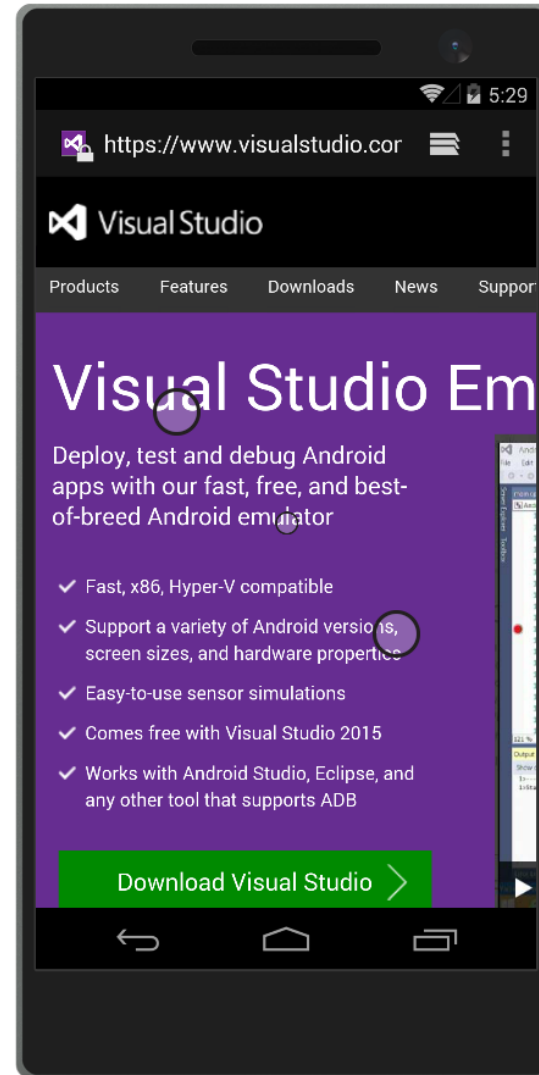
- Create UI with drag & drop simplicity
- Target multiple screen sizes, resolutions and Android versions
- Layouts saved in standard Android XML files



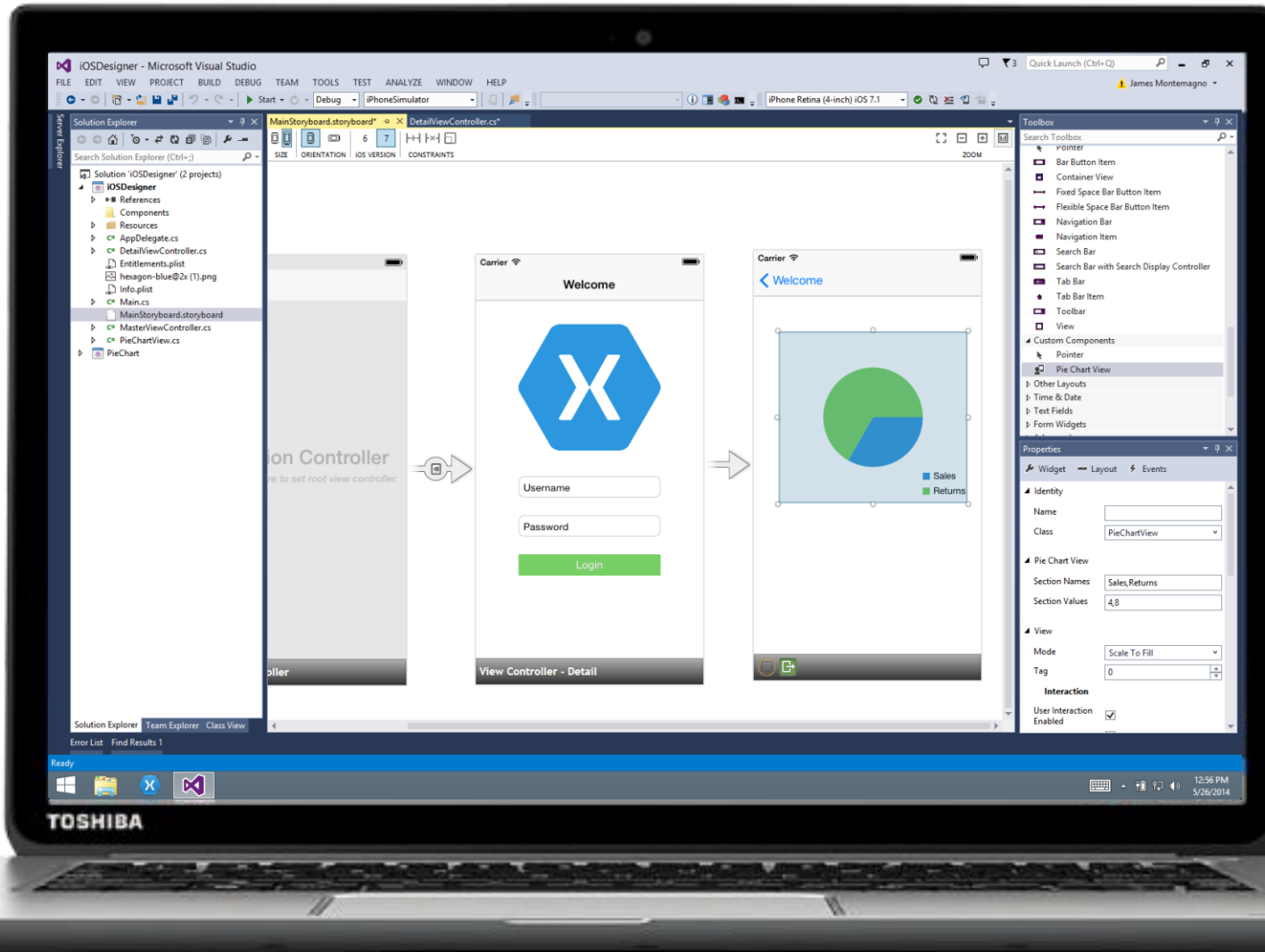
Android Hyper-V Emulators for PC

- Multi-Touch Enabled
- Super Fast
- Rotate, screenshots, location changes, and more!

<http://bit.ly/hyperv-android>



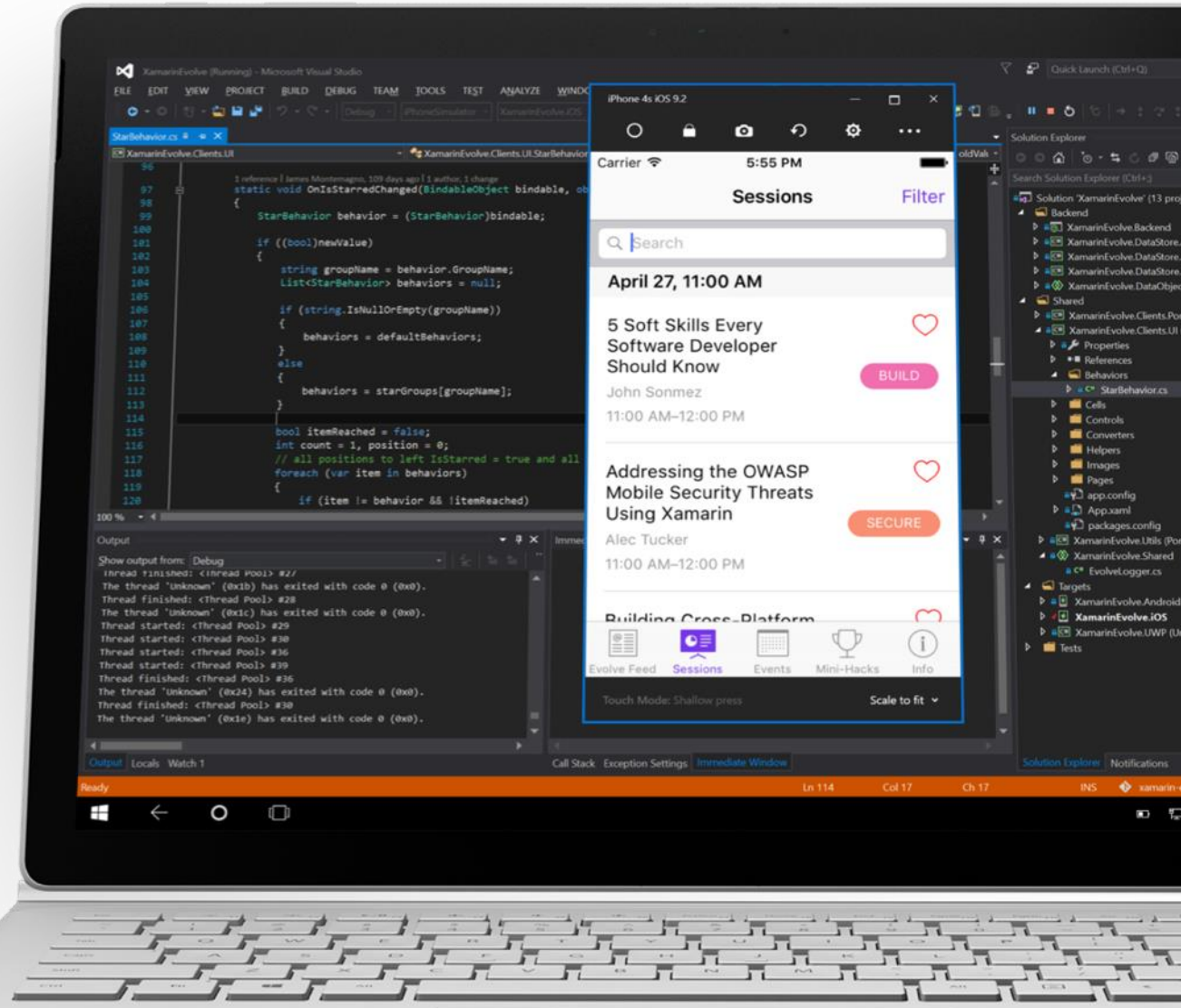
Xamarin Designer for iOS



- Follows familiar Visual Studio designer idioms
- Supports all UIKit elements
- Edit custom and 3rd party components
- Live preview of changes to properties

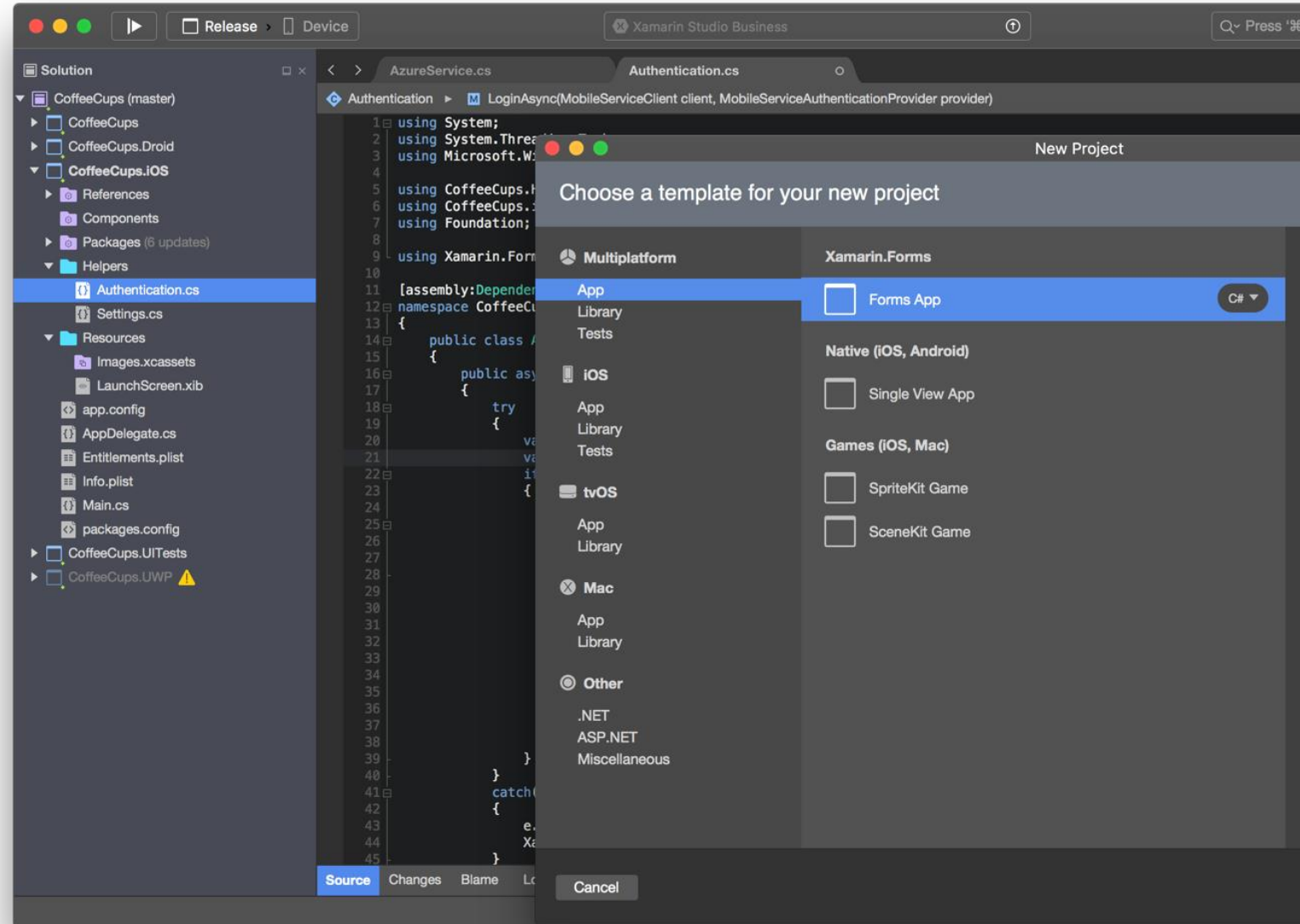
Visual Studio iOS Simulator Remoting

- Multi-Touch Enabled
- Pressure Sensitive
- Super Fast
- Rotate, screenshots, location changes
- Never leave VS



*available as a preview

Xamarin Studio – Mac



Open Source – open.xamarin.com



Xamarin
OPEN SOURCE

[Xamarin SDK](#)

[Documentation](#)

[Community](#)

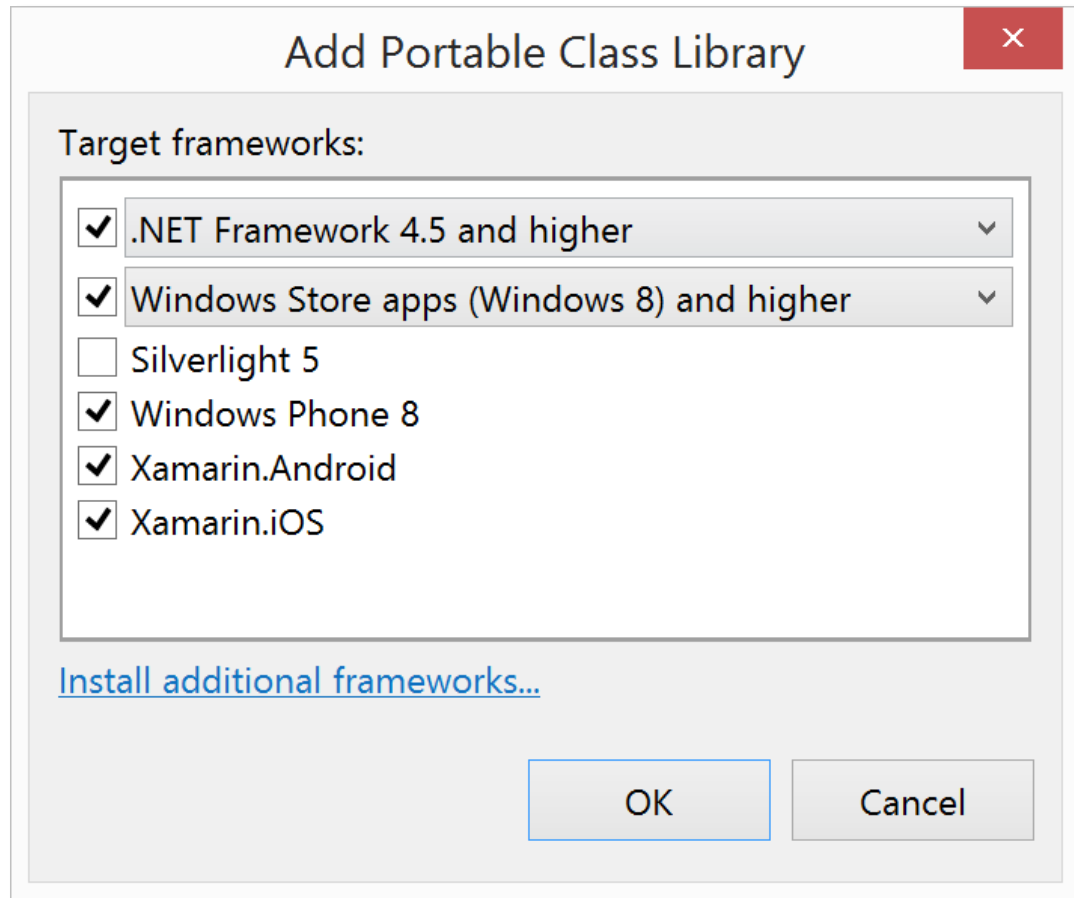
[Contribute](#)

Build the future of apps
with Xamarin.

Xamarin SDK is now fully available under the MIT license.

Sharing Code

Portable Class Libraries



1 Assembly
Multiple Platforms

Including:

Xamarin.iOS and Xamarin.Android

NuGet

The image shows a screenshot of the NuGet package manager interface. On the left, there is a sidebar titled "Add Packages" with a search bar containing "nuget.org" and a search bar containing "xamarin". Below the search bar, there is a list of packages with checkboxes and icons:

- Xamarin.Social**
Share statuses, links, and images on Facebook, Flickr, Twi...
- Xamarin.Auth**
A cross-platform API for authenticating users and storing...
- Xamarin.Mobile**
Xamarin.Mobile is a library that exposes a single set of API common mobile device functionality across iOS, Android a...
- Xamarin.InAppBilling**
Component to assist in adding In-App Billing to a Xamarin via Google Play Services.
- Xamarin.FacebookBinding**
Xamarin Android Binding library for Facebook Android SD...
- BugSense plugin for Xamarin Android application**
BugSense is the leading crash reporting and quality metric... This is the official plugin for Xamarin Android appli...
- Show pre-release packages

On the right, there is a window titled "PlanetXamarin.WinStore - Manage NuGet Packages" with a search bar containing "xamarin". The window displays a list of packages with filters and sorting options:

- Stable Only | Sort by: Most Downloads
- EntityFramework: Entity Framework is Microsoft's recommended data access technology for new applications.
- Json.NET** (highlighted): Json.NET is a popular high-performance JSON framework for .NET.
- jQuery: jQuery is a new kind of JavaScript Library. jQuery is a fast and concise JavaScript Library that simplifies HTM...
- WebGrease: Web Grease is a suite of tools for optimizing javascript, css files and images.
- Microsoft ASP.NET MVC: This package contains the runtime assemblies for ASP.NET MVC.
- Microsoft HTTP Client Libraries: This package provides a programming interface for modern HTTP/REST based applications.
- Microsoft ASP.NET Web API 2.2: This package contains everything you need to host ASP.NET Web API on IIS.

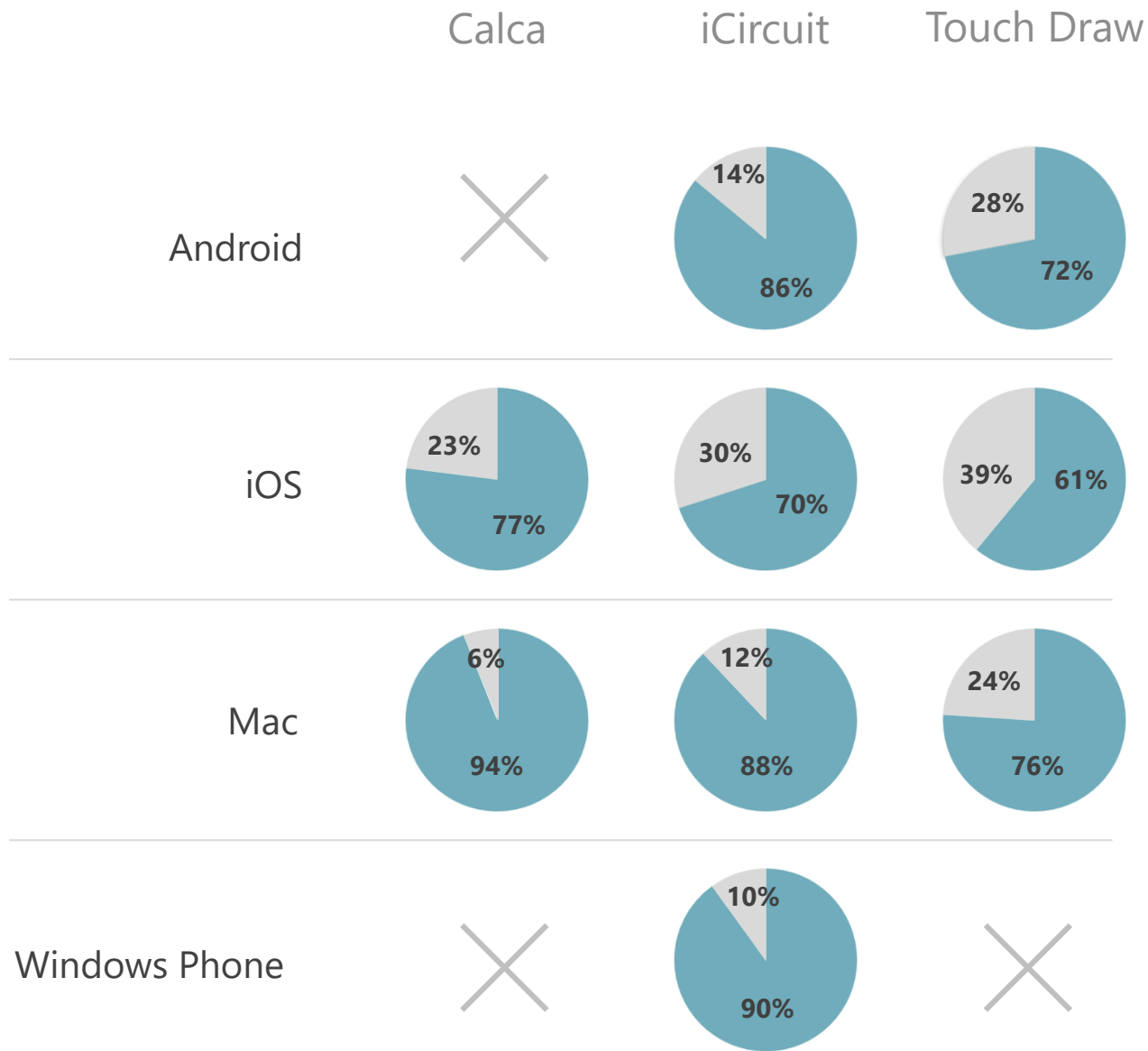
At the bottom of the window, there is a "Settings" button and a "Close" button. A footer note states: "Each package is licensed to you by its owner. Microsoft is not responsible for, nor does it grant any licenses to, third-party packages."

Shared Projects

The screenshot displays the Visual Studio IDE with the following components:

- Debugger:** Set to 'Debug' mode for an 'iPhone Retina (4-incl)' target.
- Solution Explorer:** Shows a solution named 'XamarinStore (master)'. Under the 'MyAwesomeApp.Android' project, the 'References' folder is selected. A context menu is open over 'References', with 'Add Shared Project Reference...' highlighted. Other menu items include 'Add Reference...', 'Add Web Reference...', 'Manage NuGet Packages...', 'Scope to This', and 'New Solution Explorer View'.
- Project Hierarchy:** The 'References' folder contains 'Components', 'Assets', 'Resources', and 'MainActivity.cs'. Below it, the solution structure includes 'MyAwesomeApp.iOS', 'MyAwesomeApp.Shared', 'MyAwesomeApp.Windows (Windows 8)', and 'MyAwesomeApp.WindowsPhone (Wind'.
- Code Editor:** Shows the 'WebService.cs' file in the 'XamarinStore.Android' project. The code includes the following lines:

```
1 tem;  
2 tem.IO;  
3 using System.Net;  
4 using System.Text;  
5 using System.Linq;  
6 using System.Threading.Tasks;  
7 using System.Collections.Gene  
8  
9 using Xamarin.SSO.Client;  
10  
11 namespace XamarinStore  
12 {  
13     public class WebService  
14     {  
15         public static readonl  
16
```



Code Sharing Stats

Let's Build an App

Simplifying Development



Shared C# Backend



UI+APIs

Battery
GPS
Lights
Notifications
Settings
Text To Speech

UI + APIs

Battery
GPS
Lights
Notifications
Settings
Text To Speech

UI + APIs

Battery
GPS
Lights
Notifications
Settings
Text To Speech

Platform Specific Code

What if we didn't have to
write this code?

What if we could access
it from shared code?

```
Speak("Hello World");
```

AVSpeechSynthesizer

TextToSpeech

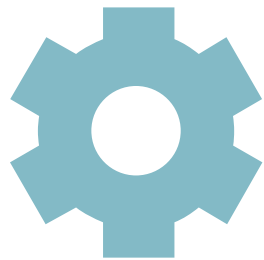
SpeechSynthesizer



Plugins for Xamarin

github.com/xamarin/plugins

Common API



10 Minute Break

Presenter First Name

Presenter Last Name

Presenter Title

Presenter e-mail

blogs

Twitter