



Dev Days

Amsterdam



#XamarinDevDays



Dev Days Agenda

- **Marcel** – Introduction to Xamarin
- **Geert** – Cross Platform UI with Xamarin.Forms
- **Roy** – Connected Apps with Azure
- Lunch – Courtesy of Xpirit
- File -> New App Workshop



Dev Days

Slides, Demos, & Lab - Clone or Download:
<http://github.com/xamarin/dev-days-labs>



Free Syncfusion License

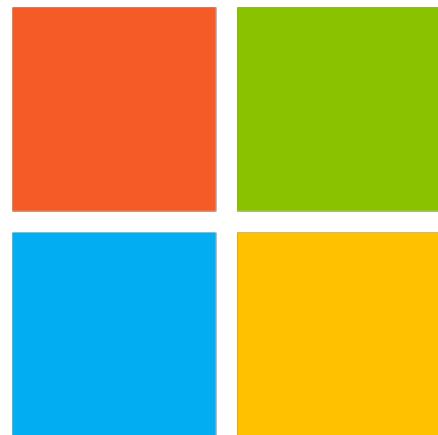
Essential Studio for Xamarin

Cross-platform mobile development for Xamarin.Forms,
Xamarin.iOS, and Xamarin.Android.



Claim your free license at:

www.Syncfusion.com/XamarinDevDays



Microsoft



Think ahead. Act now.



Native iOS & Android Development with Xamarin

Marcel de Vries
@marcelv

CTO, Xpirit

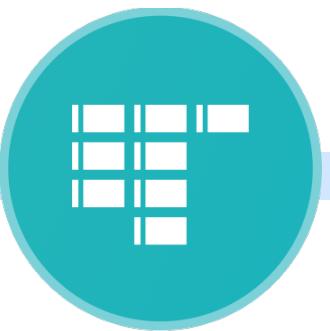
Xamarin – Your Complete Mobile Solution



Develop



Test



Build



Distribute



Monitor

Xamarin test cloud > MonkeyChat > master > May 24, 2016 7:37 PM

New Test Run | Support | Docs | James ▾

Overview

RECODER TEST
ScrollToEvent[AppView: Class=Xamarin.TestRec...]

Filter devices

ALL RESULTS

Recorder Test

New Test

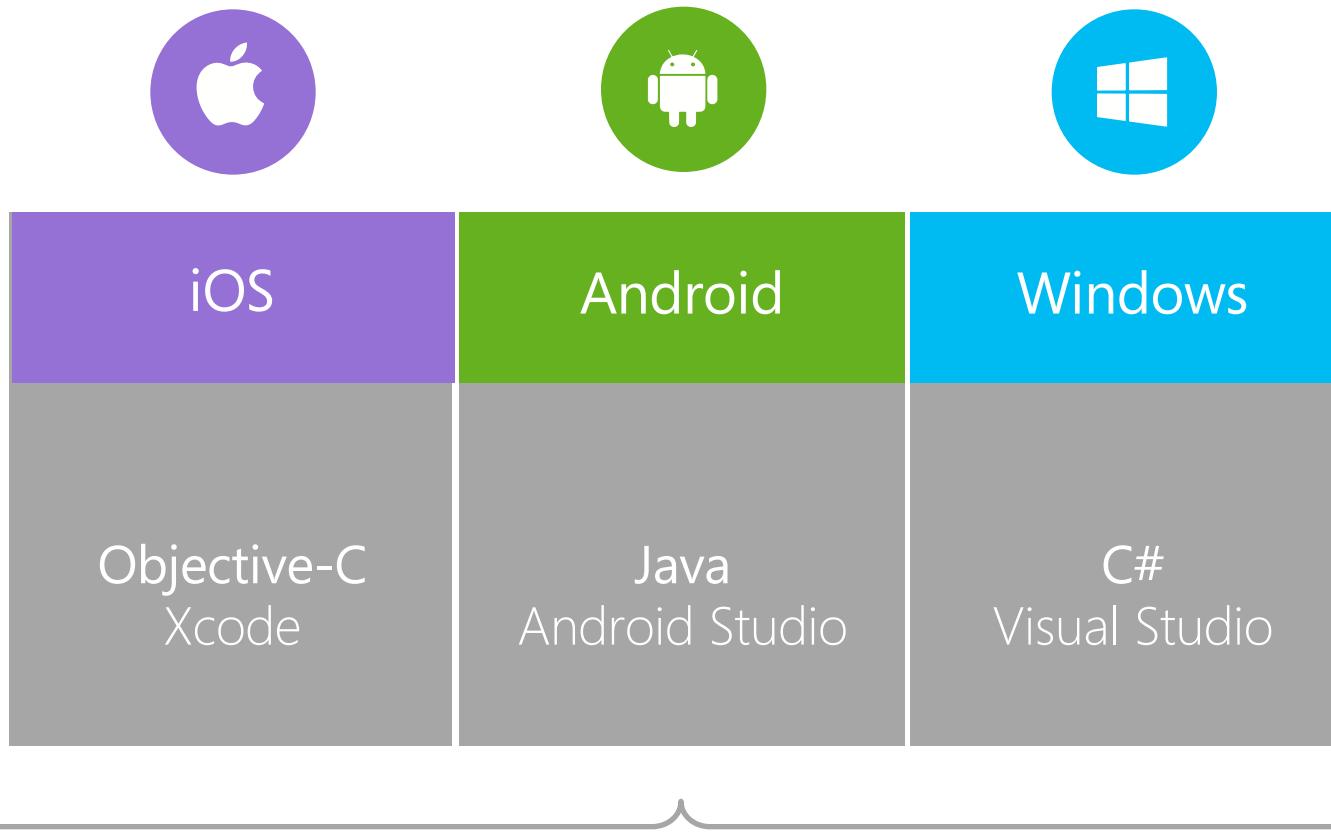
Tapped on view with class: AppCompatButton 6⚡
Tapped on view with class: EntryEditText
Tapped on view with class: AppCompatButton
Tapped on view with class: EntryEditText 1⚡

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

This screenshot shows the Xamarin Test Cloud interface. At the top, it displays the navigation path: Xamarin test cloud > MonkeyChat > master > May 24, 2016 7:37 PM. On the right side, there are links for New Test Run, Support, Docs, and a user profile for James. Below the navigation, there's a section titled 'RECODER TEST' with the message 'ScrollToEvent[AppView: Class=Xamarin.TestRec...]' and a 'Filter devices' button. The main area is divided into two columns. The left column contains a sidebar with 'Overview', 'ALL RESULTS', 'Recorder Test' (which is currently selected), and 'New Test'. It also lists recent tap events: 'Tapped on view with class: AppCompatButton 6⚡', 'Tapped on view with class: EntryEditText', 'Tapped on view with class: AppCompatButton', and 'Tapped on view with class: EntryEditText 1⚡'. The right column displays a grid of 12 smartphone icons, each representing a different device and its Android version. The devices listed are: 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), and three additional devices whose names are partially visible.

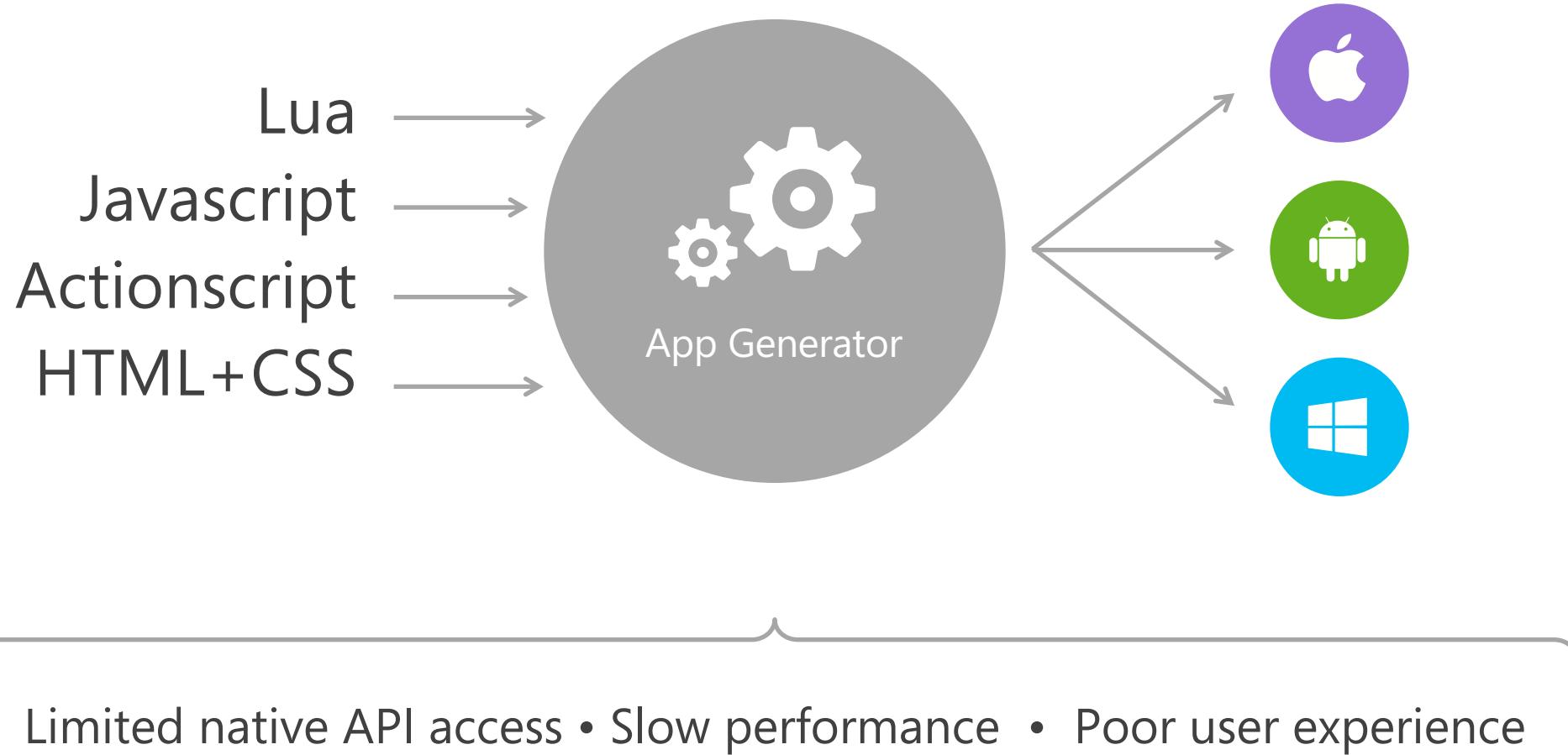
Architecting Mobile Apps

Silo Approach

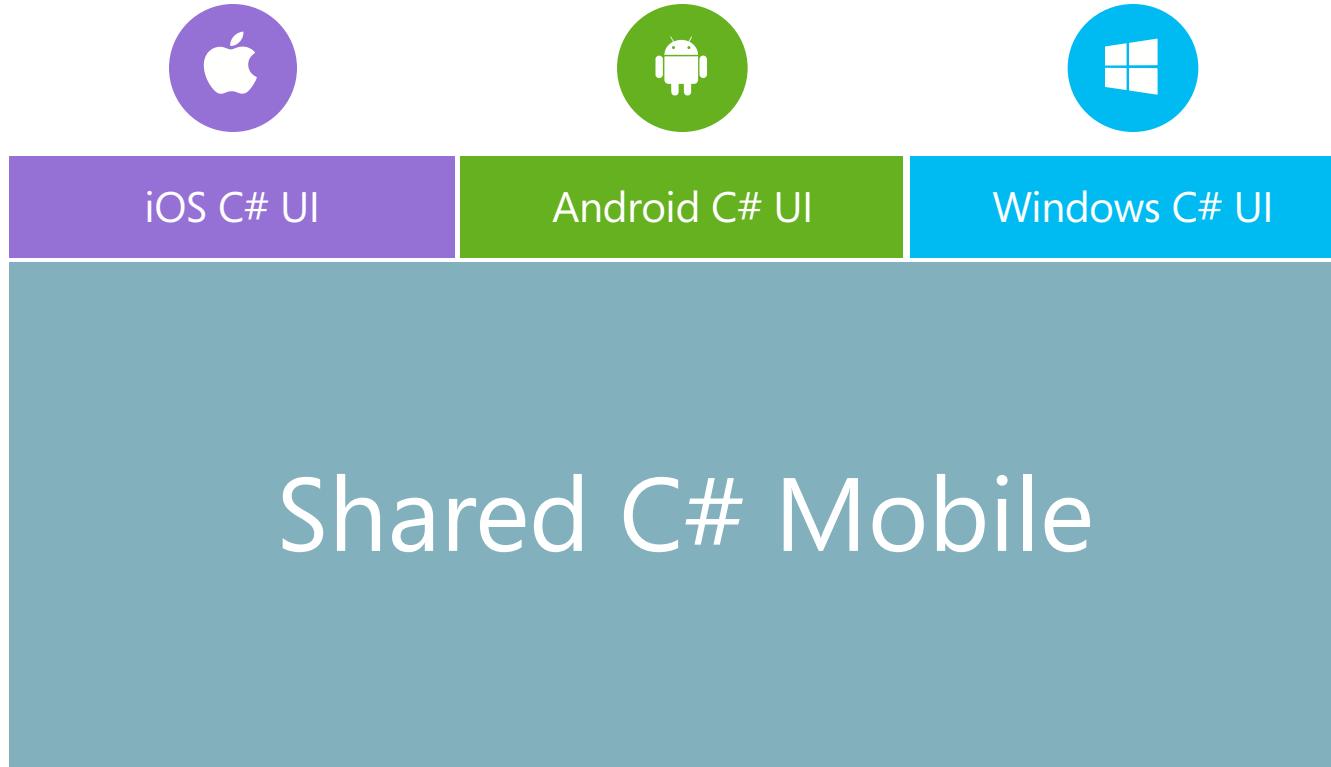


No shared code • Many languages & development environments • Multiple teams

Write Once, Run Anywhere



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#

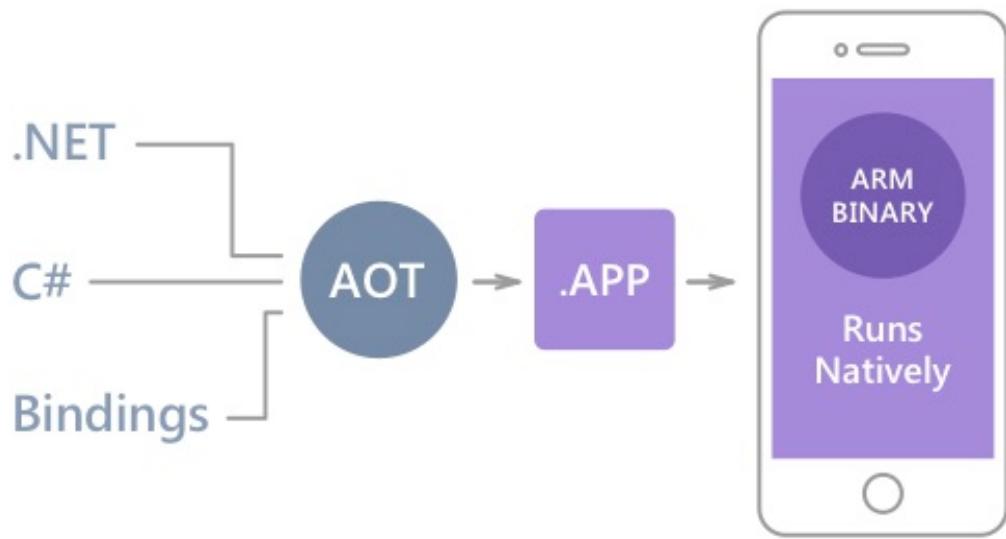
Android – 100% API Coverage

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

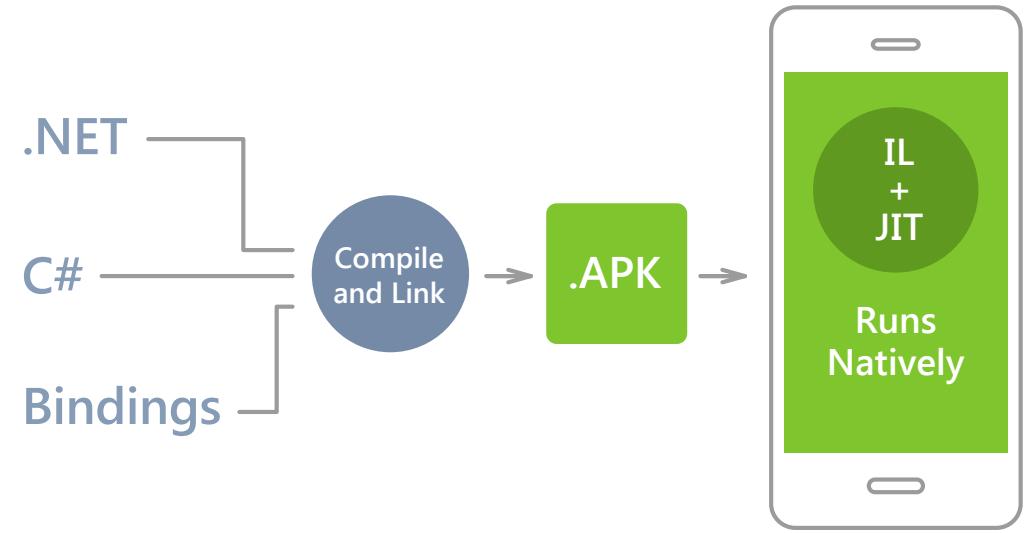


C#

Native Performance

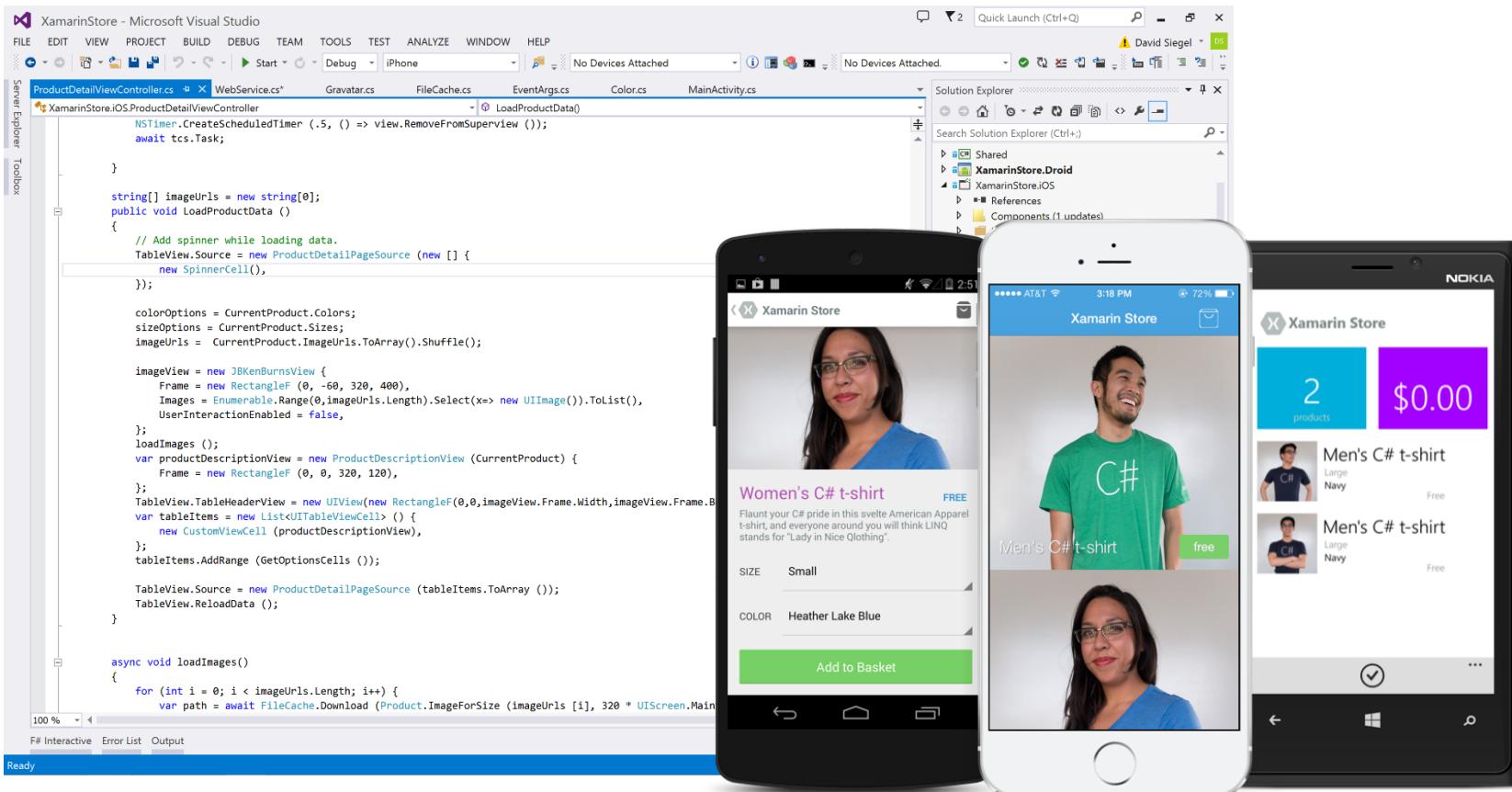


Xamarin.iOS does full Ahead Of Time (AOT) compilation to produce an ARM binary for Apple's App Store.



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:

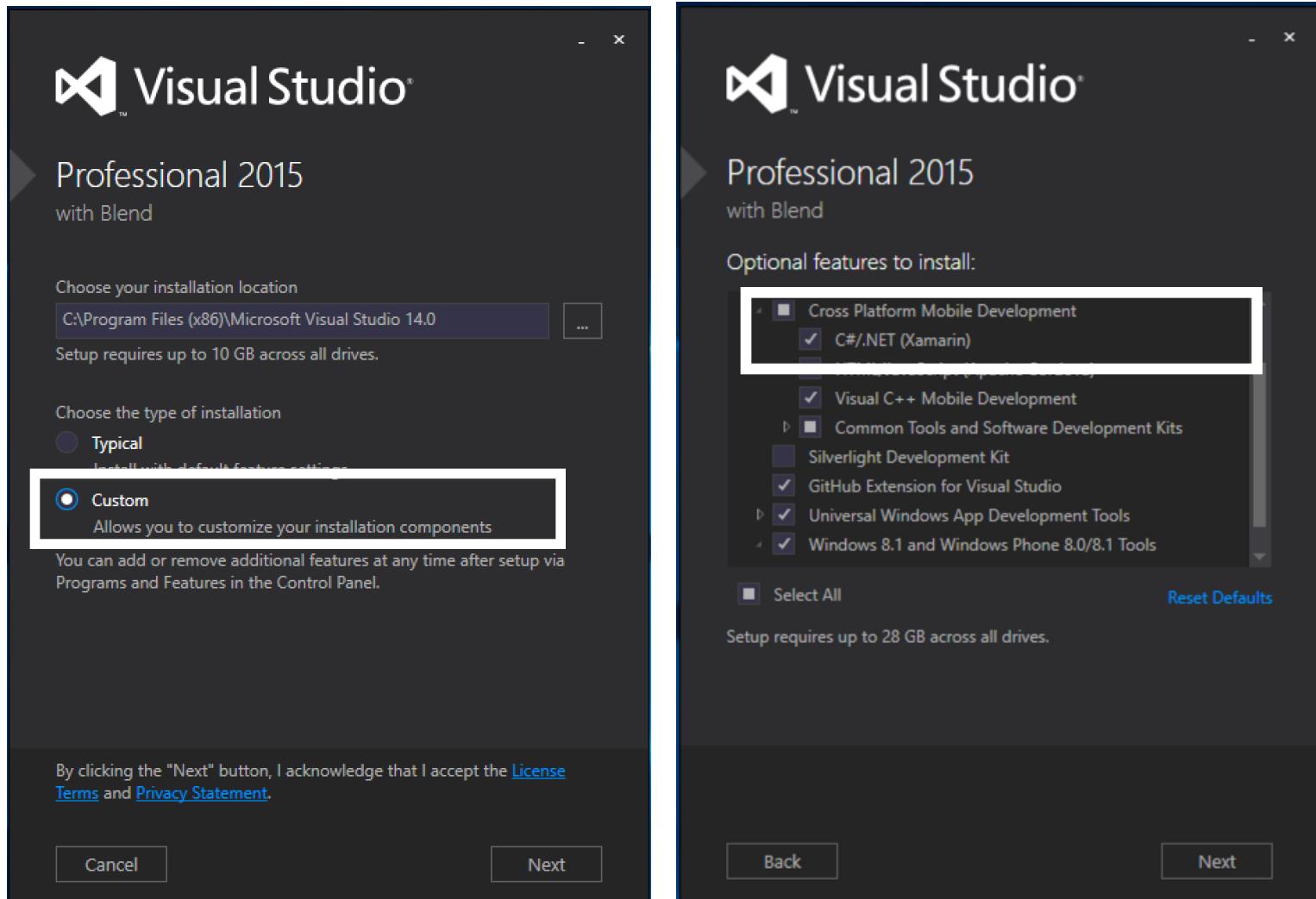
- Apple Watch
- Android Wear
- Amazon Fire TV
- Google Glass
- and much more

Development Experience

Xamarin is included in
Visual Studio

Including Community Edition!

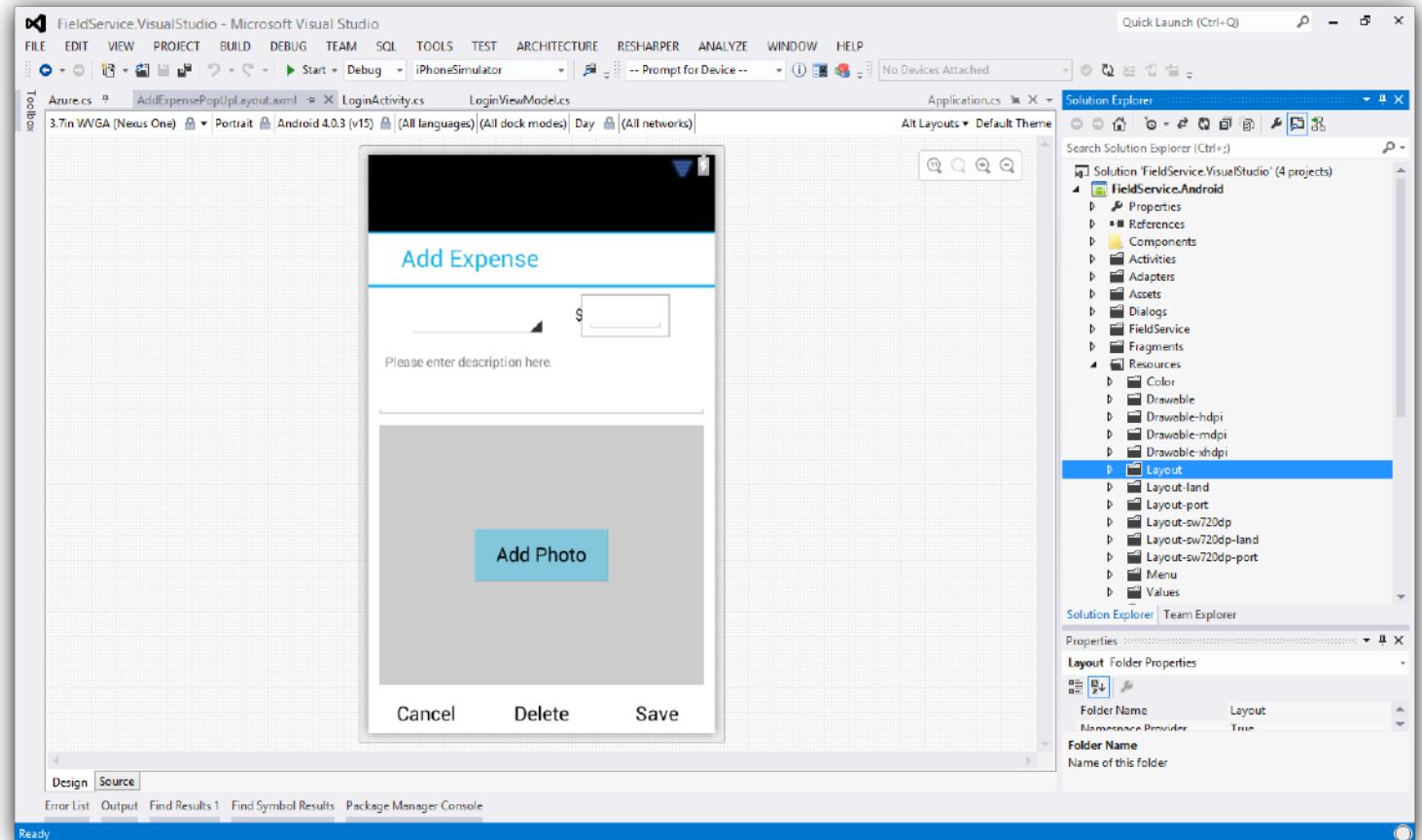
Visual Studio Integration



Xamarin.com/Download

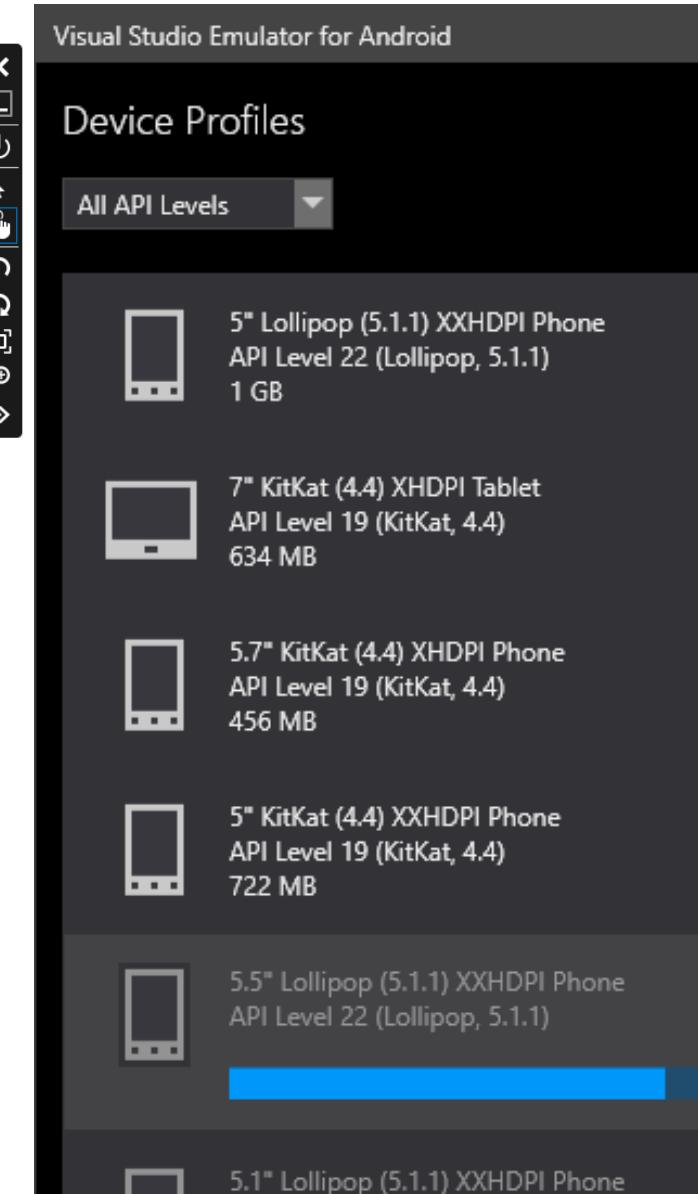
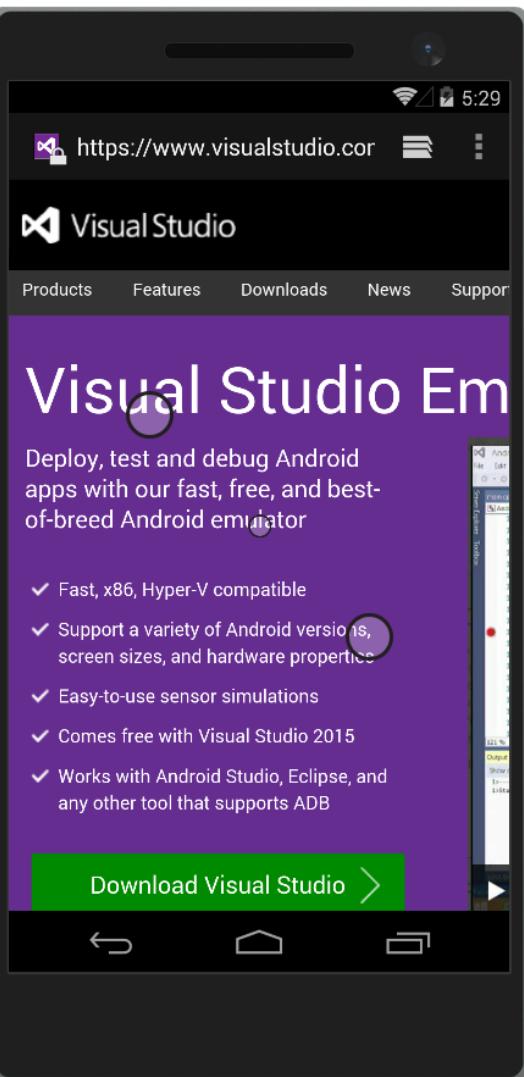
Android Designer

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



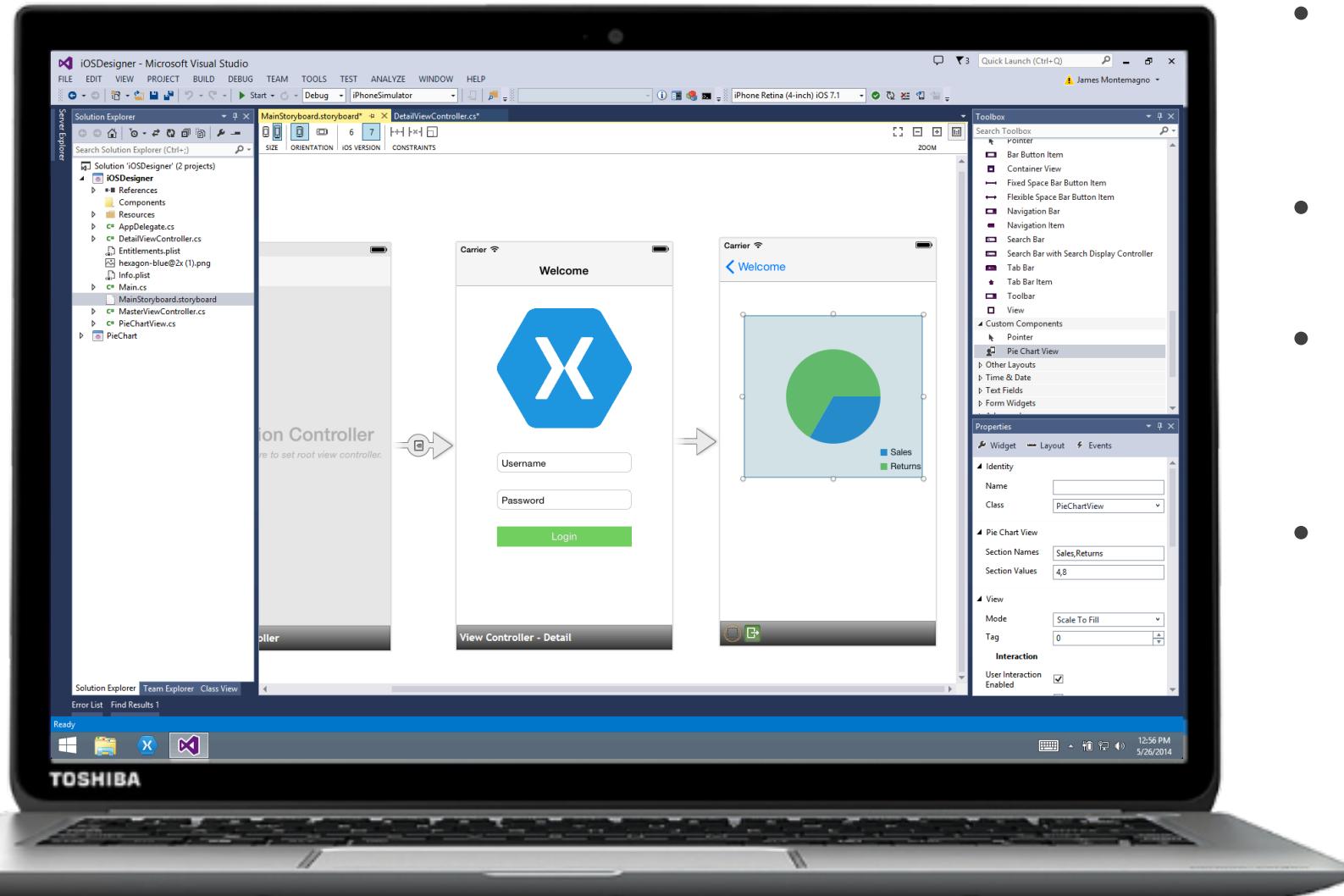
Android Hyper-V Emulators for PC

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



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

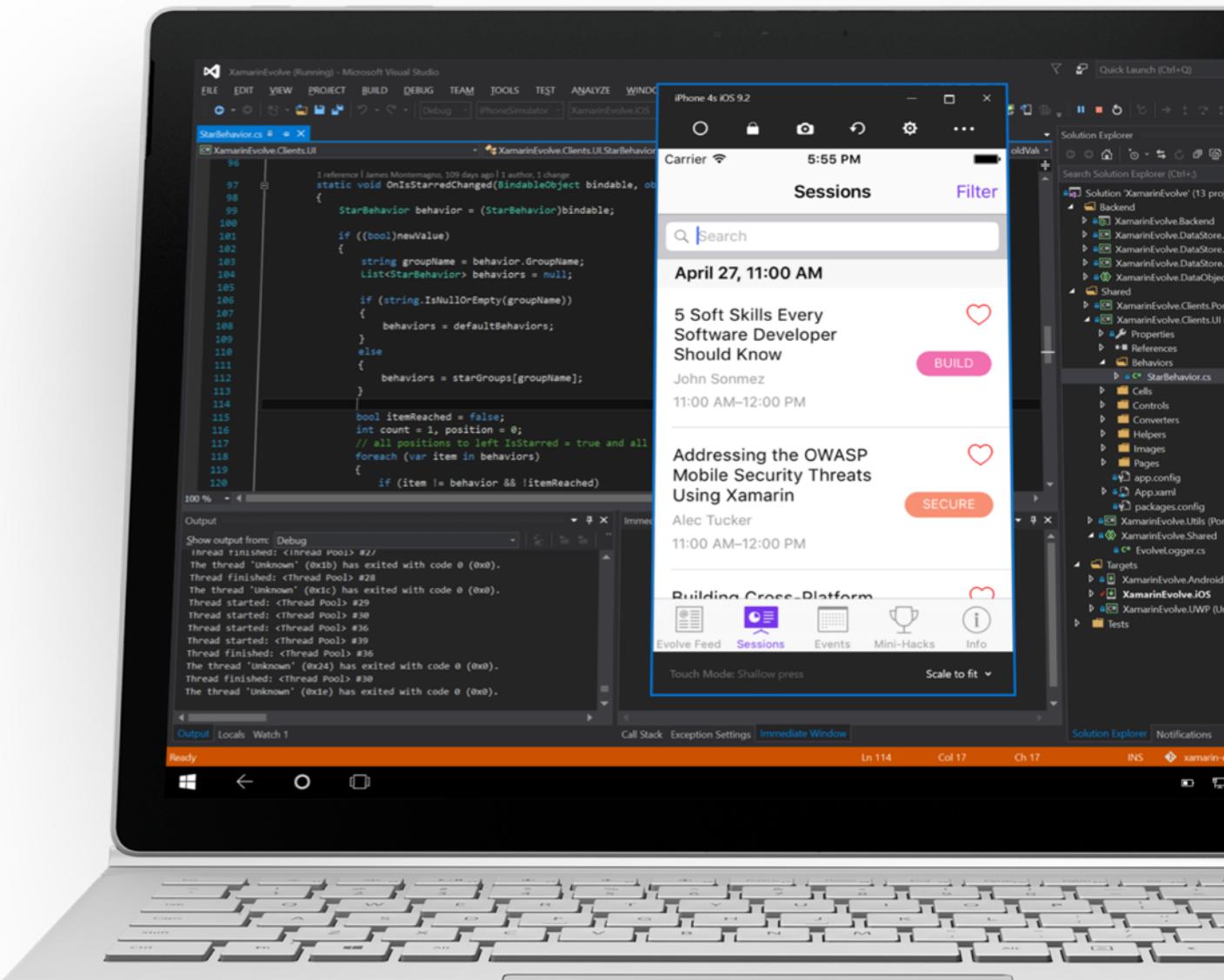
Xamarin Designer for iOS



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

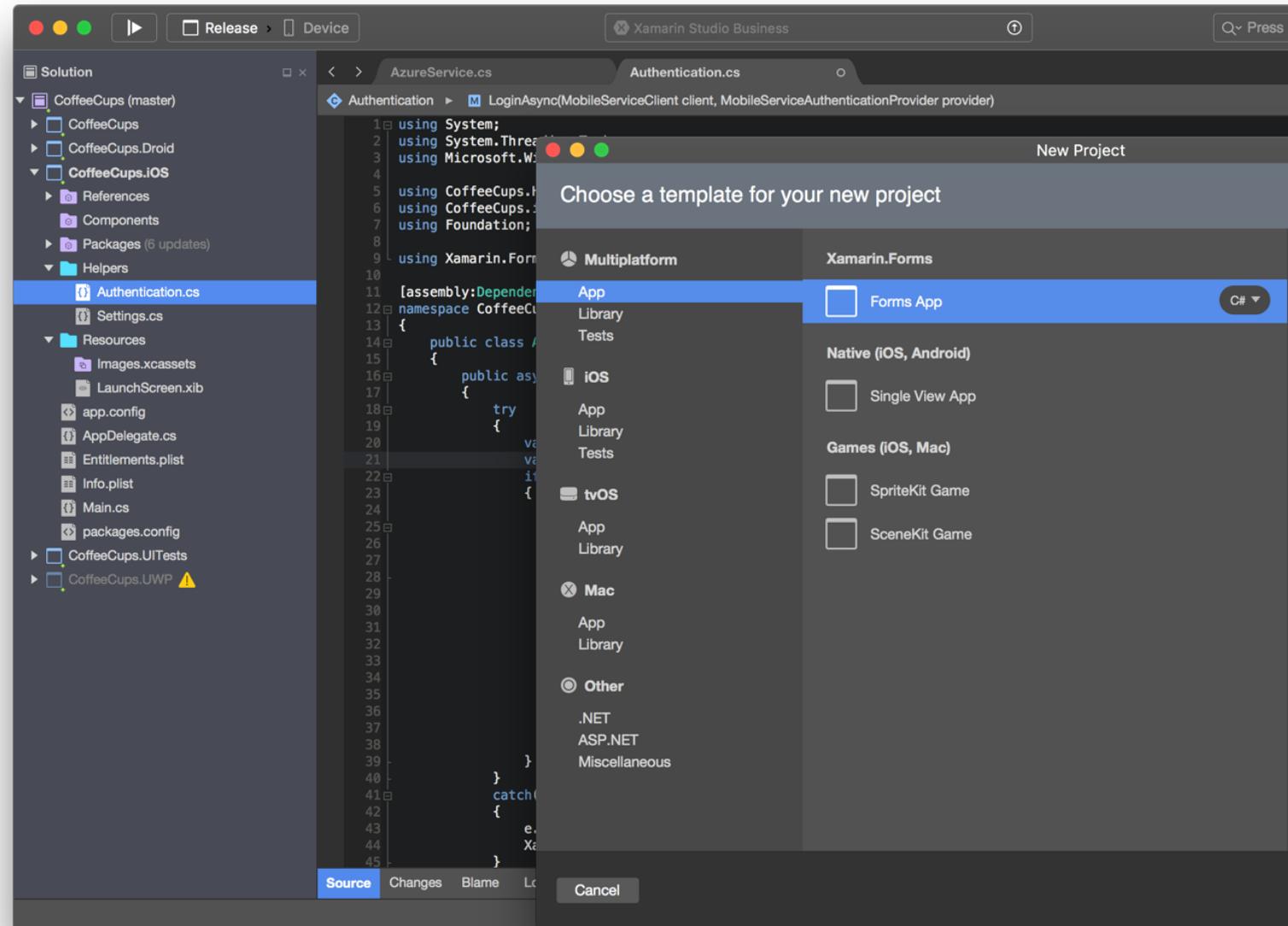
Visual Studio iOS Simulator Remoting

- 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

A photograph of a man with a beard and short hair, wearing a grey t-shirt, sitting on a couch and working on a silver laptop. The laptop is covered in several stickers: a white unicorn with a flag, a blue hexagonal logo with an 'X', a blue icon of a person coding, the Apple logo, and a purple .NET sticker. Below the .NET sticker is a small red and blue 'YES WE CODE' logo. He is sitting on a couch with a red cushion and a large teal cushion. In the background, there's a window with a colorful mural and some wooden structures. On the far right, there's a teal button with the word 'Contribute'.

Xamarin
OPEN SOURCE

Xamarin SDK

Documentation Community

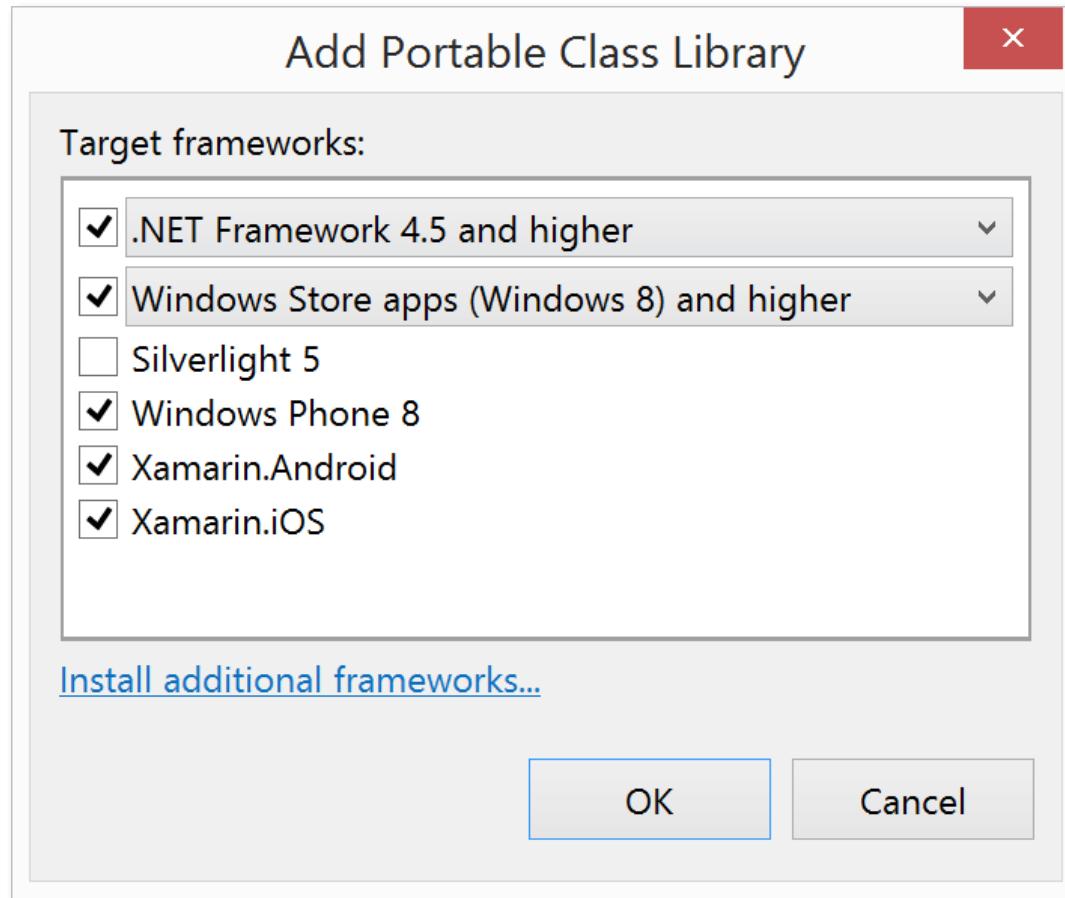
Contribute

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

Add Packages

nuget.org

xamarin

Xamarin.Social
Share statuses, links, and images on Facebook, Flickr, Twitter, and more.

Xamarin.Auth
A cross-platform API for authenticating users and storing their identities.

Xamarin.Mobile
Xamarin.Mobile is a library that exposes a single set of APIs for common mobile device functionality across iOS, Android and Windows Phone.

Xamarin.InAppBilling
Component to assist in adding In-App Billing to a Xamarin application via Google Play Services.

Xamarin.FacebookBinding
Xamarin Android Binding library for Facebook Android SDK.

BugSense plugin for Xamarin Android application
BugSense is the leading crash reporting and quality metric analysis tool for mobile applications.

Show pre-release packages

Each package is licensed to you by its owner. Microsoft is not responsible for, nor does it grant any licenses to, third-party packages.

Settings

PlanetXamarin.WinStore - Manage NuGet Packages

? X

xamarin

Created by: James Newton-King
Id: Newtonsoft.Json
Version: 6.0.3
Last Published: 4/27/2014
Downloads: 6189092
License
View License
Project Information
Report Abuse
Description:
Json.NET is a popular high-performance JSON framework for .NET
Tags: json
Dependencies:
No Dependencies

Stable Only Sort by: Most Downloads

Installed packages

Online

All nuget.org Motz NuGets Microsoft and .NET

Updates

.NET EntityFramework Entity Framework is Microsoft's recommended data access technology for new applications.

Json.NET Json.NET is a popular high-performance JSON framework for .NET Install

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.

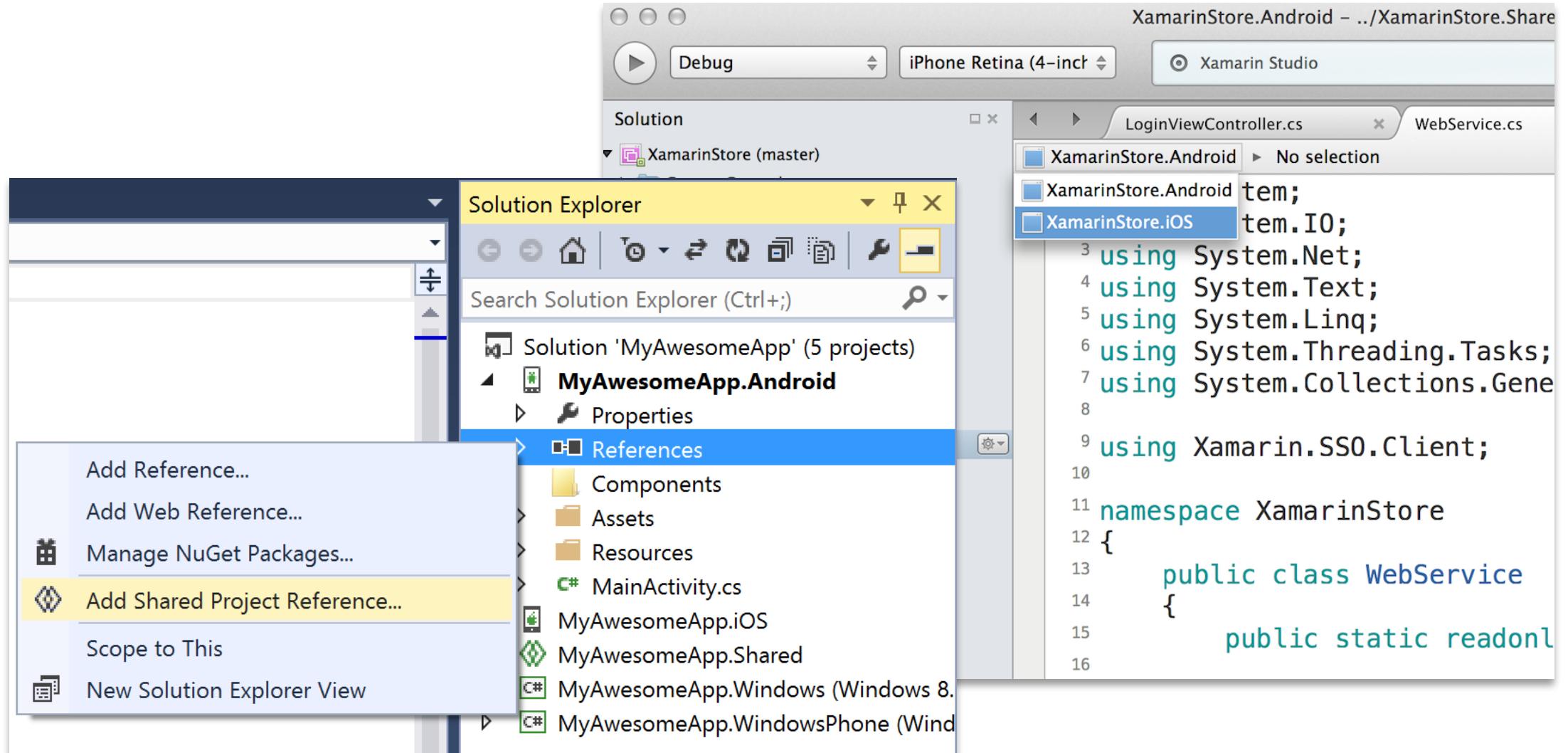
Microsoft HTTP Client Libraries This package provides a programming interface for modern HTTP/REST based applications.

Microsoft ASP.NET Web API 2.2 This package contains everything you need to host ASP.NET Web API on IIS.

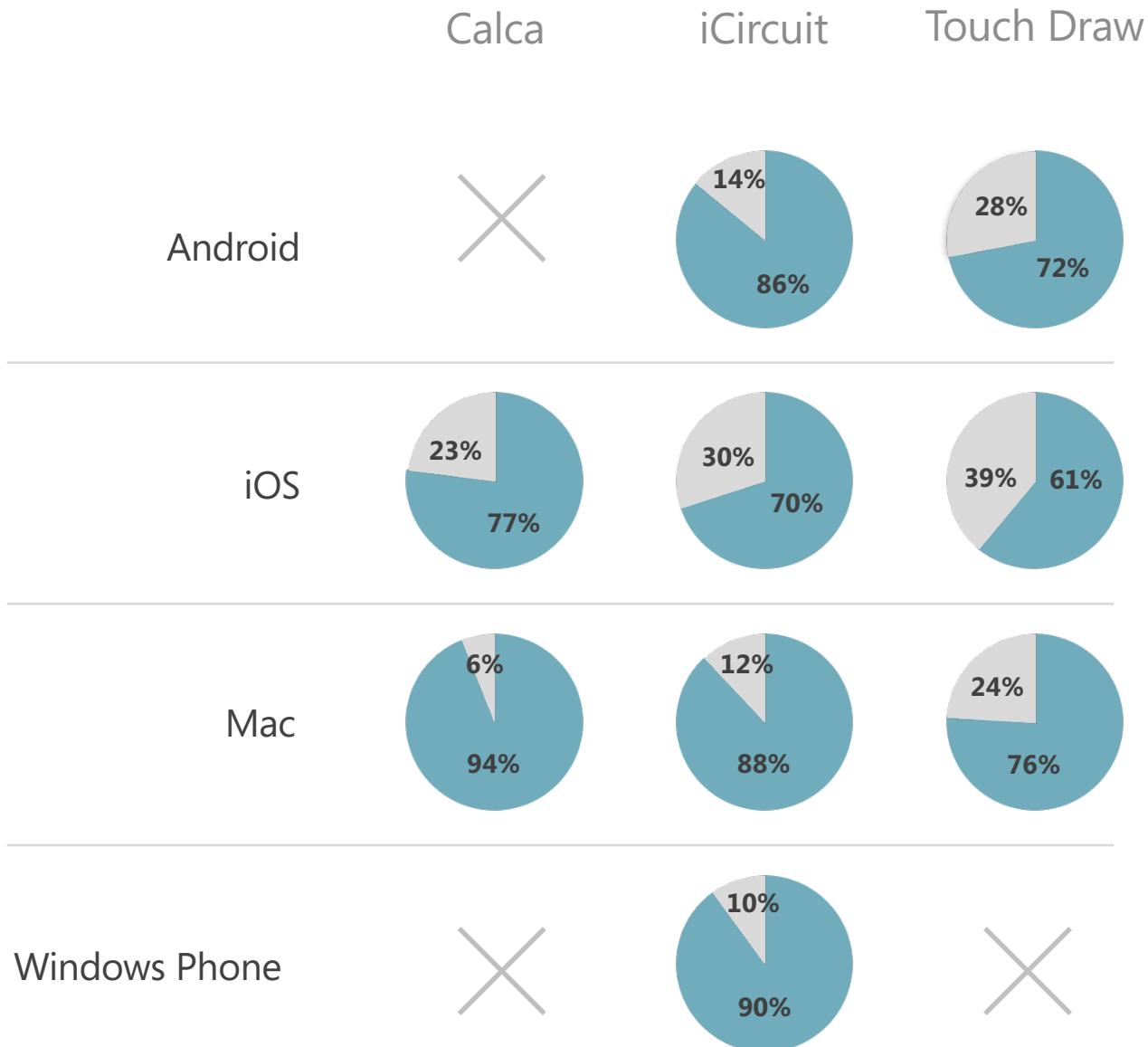
1 2 3 4 5

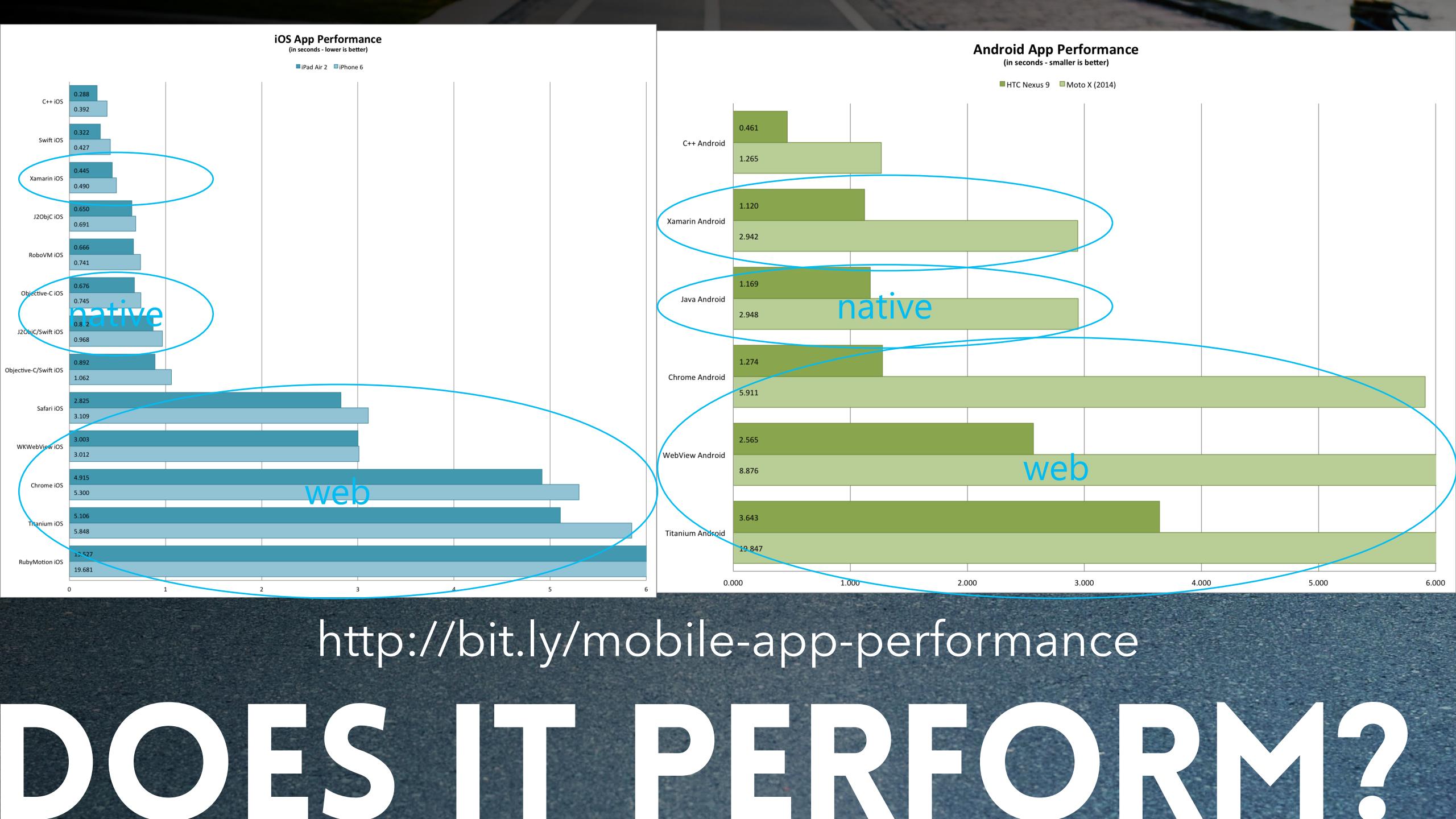
Close

Shared Projects



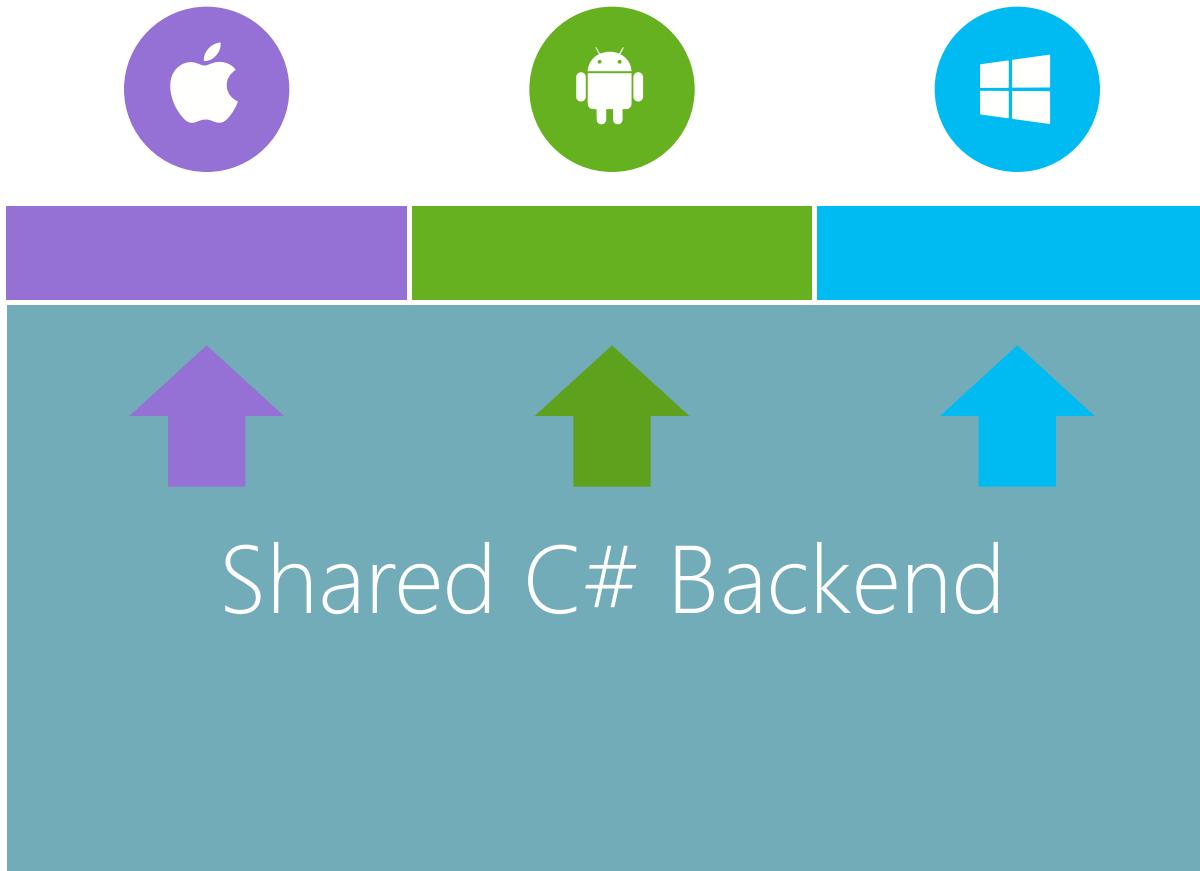
Code Sharing Stats





Let's Build an App

Simplifying Development





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?

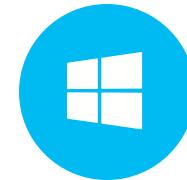
```
Speak("Hello World");
```



AVSpeechSynthesizer

TextToSpeech

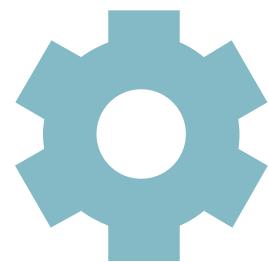
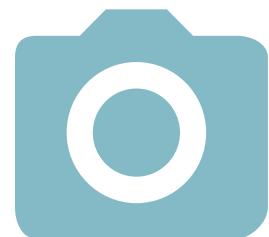
SpeechSynthesizer



Plugins for Xamarin

github.com/xamarin/plugins

Common API



10 Minute Break

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@marcelv