

Shave Mobile Development Time and Cost With Xamarin



We are a world-class software delivery firm.



Web
Development



App
Development



Product Strategy



Product Design



Agile Consulting

Our clients are market leaders and innovative pioneers.

Honeywell

MONSTER

amadeus Hospitality

 **tmpworldwide**
THE DIGITAL BRAND AUTHORITY


PerkinElmer


wex


FLORATINE

 **Connecting Point**
MARKETING GROUP


LIMRA

 **TRADEPORT**
RETURNS, MANAGED.

 **SENSITECH**
United Technologies
SUPPLY CHAIN VISIBILITY

 **EPILEPSY**
FOUNDATION
New England

CREATIVE  **INFO**
SYSTEMS

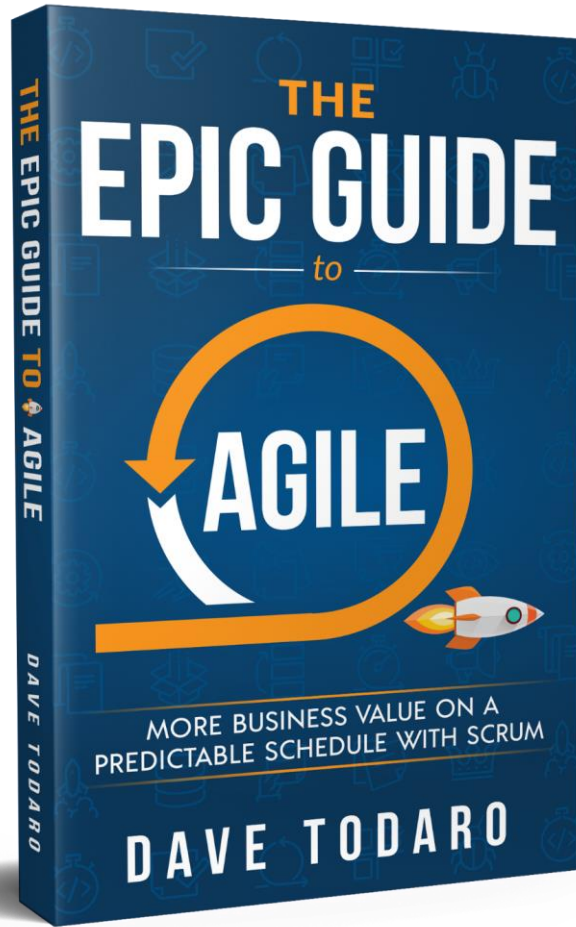
handplan

Pxl

 **ASCENDLE**

We are recognized agile software development experts.





And we
wrote the
book.

Craig Howard

linkedin.com/in/craigmhoward

Development Lead
Ascendle



Device Landscape



Creating Apps for Devices



iOS Developer
Objective-C/Swift



watchOS/tvOS
Developer



.NET
Developer



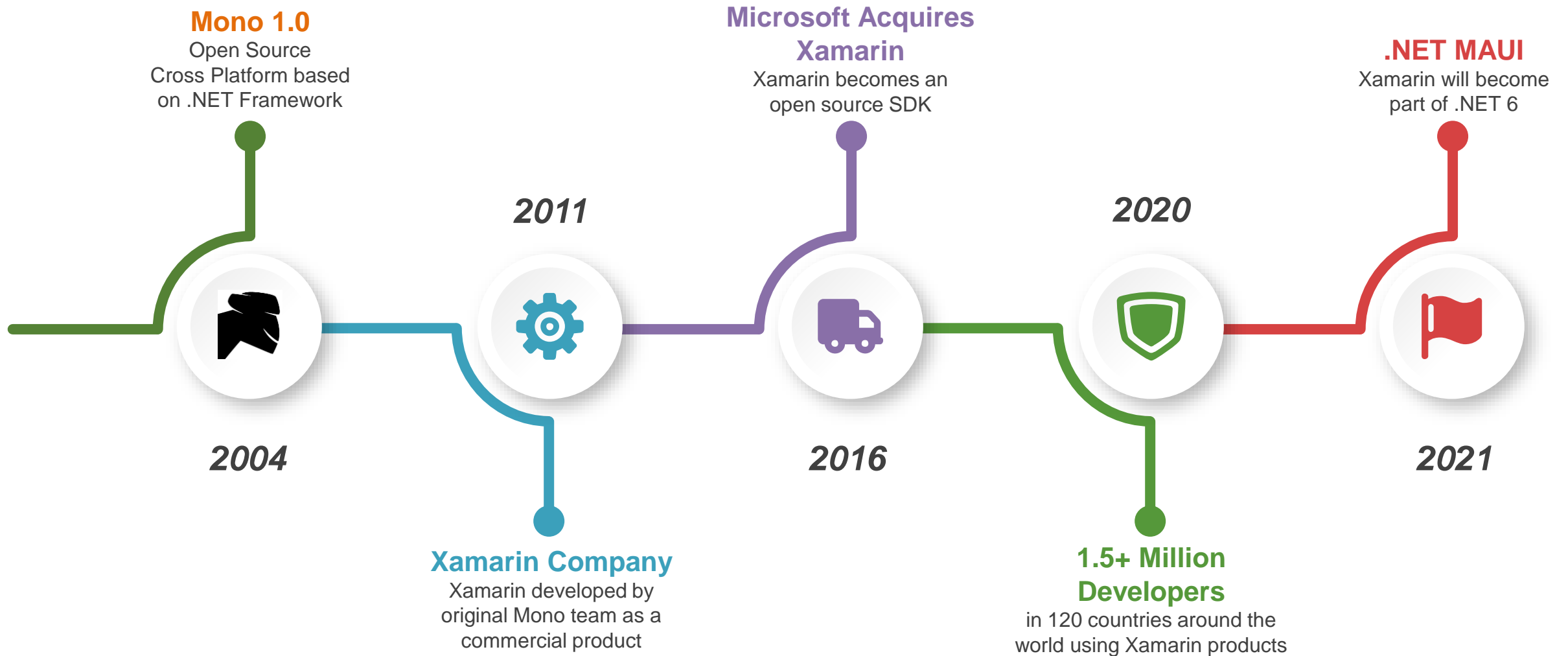
Android Java
Developer

Xamarin

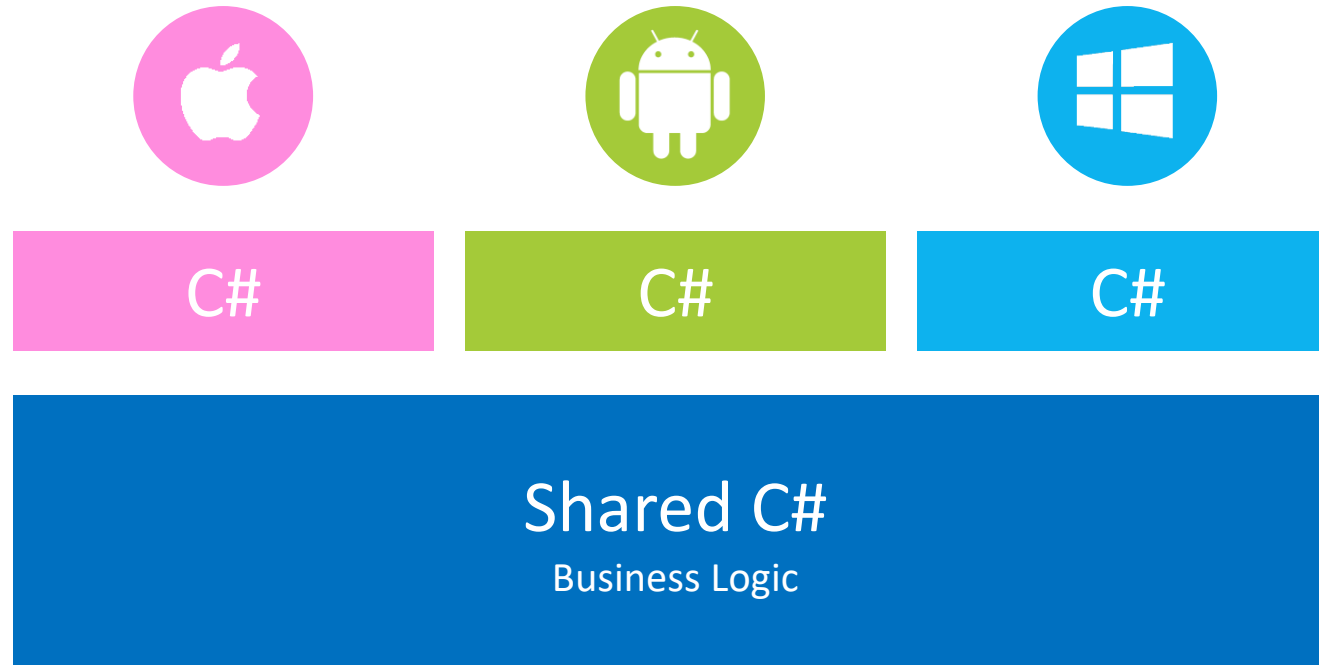


Open-source mobile app
platform for .NET

Xamarin Timeline

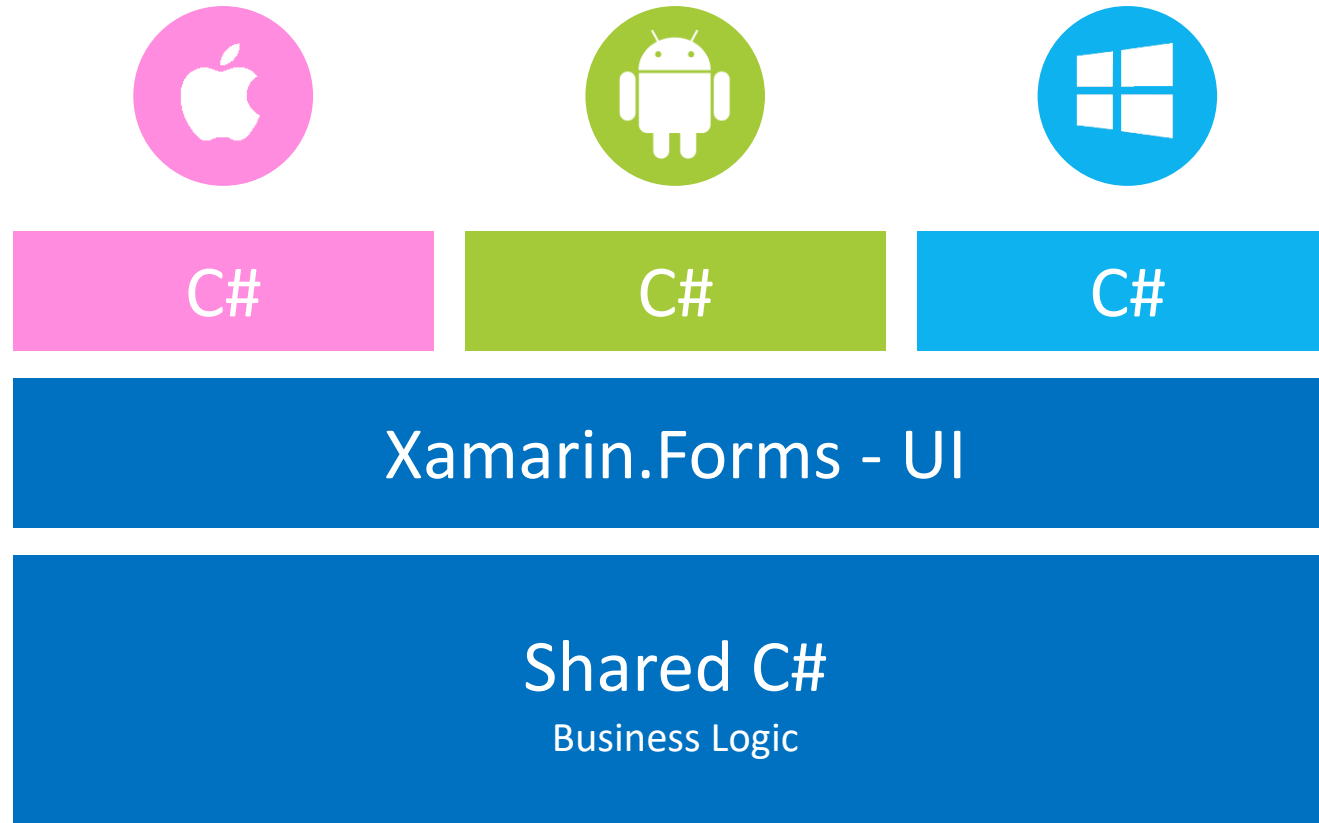


Xamarin Native

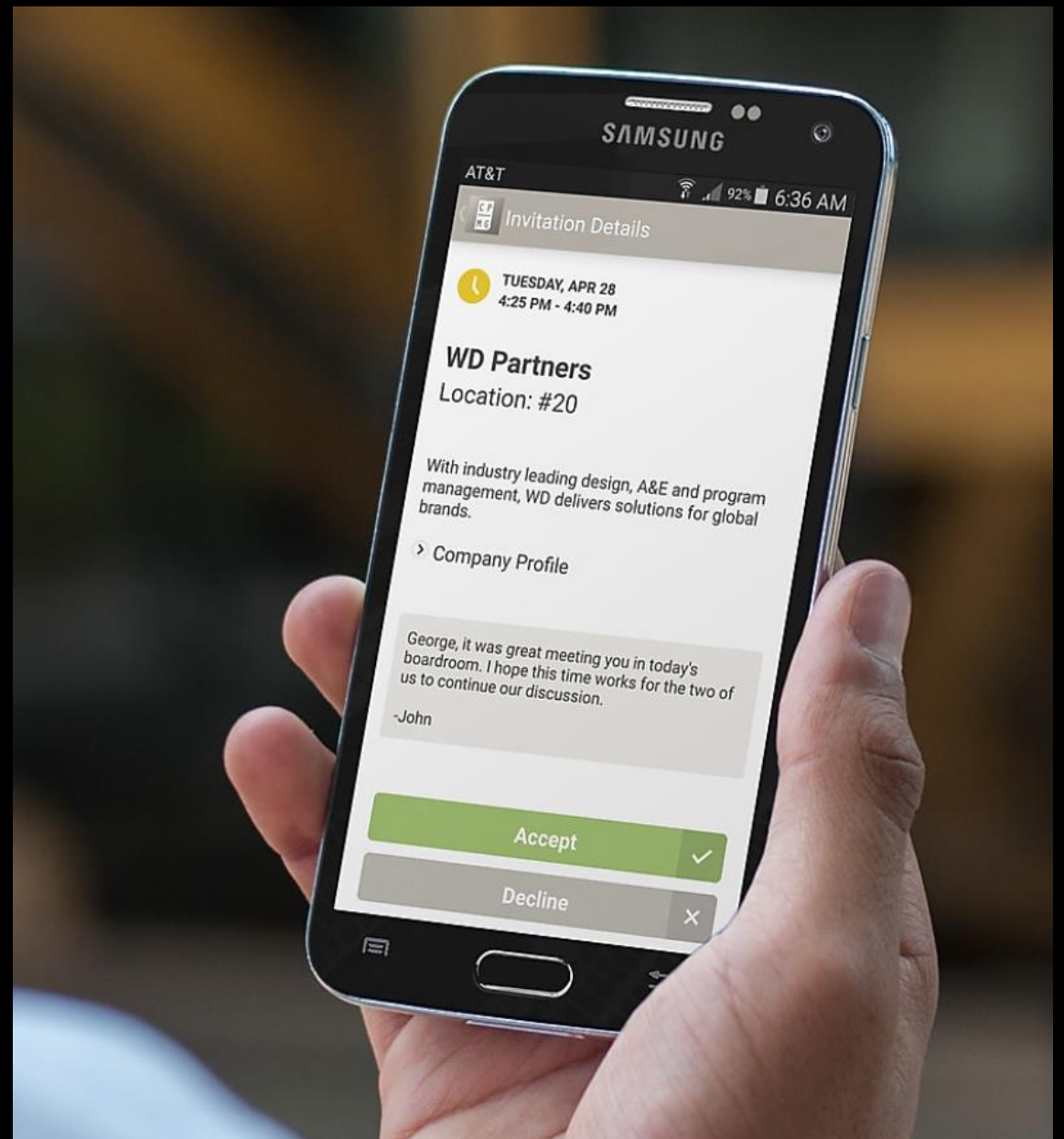
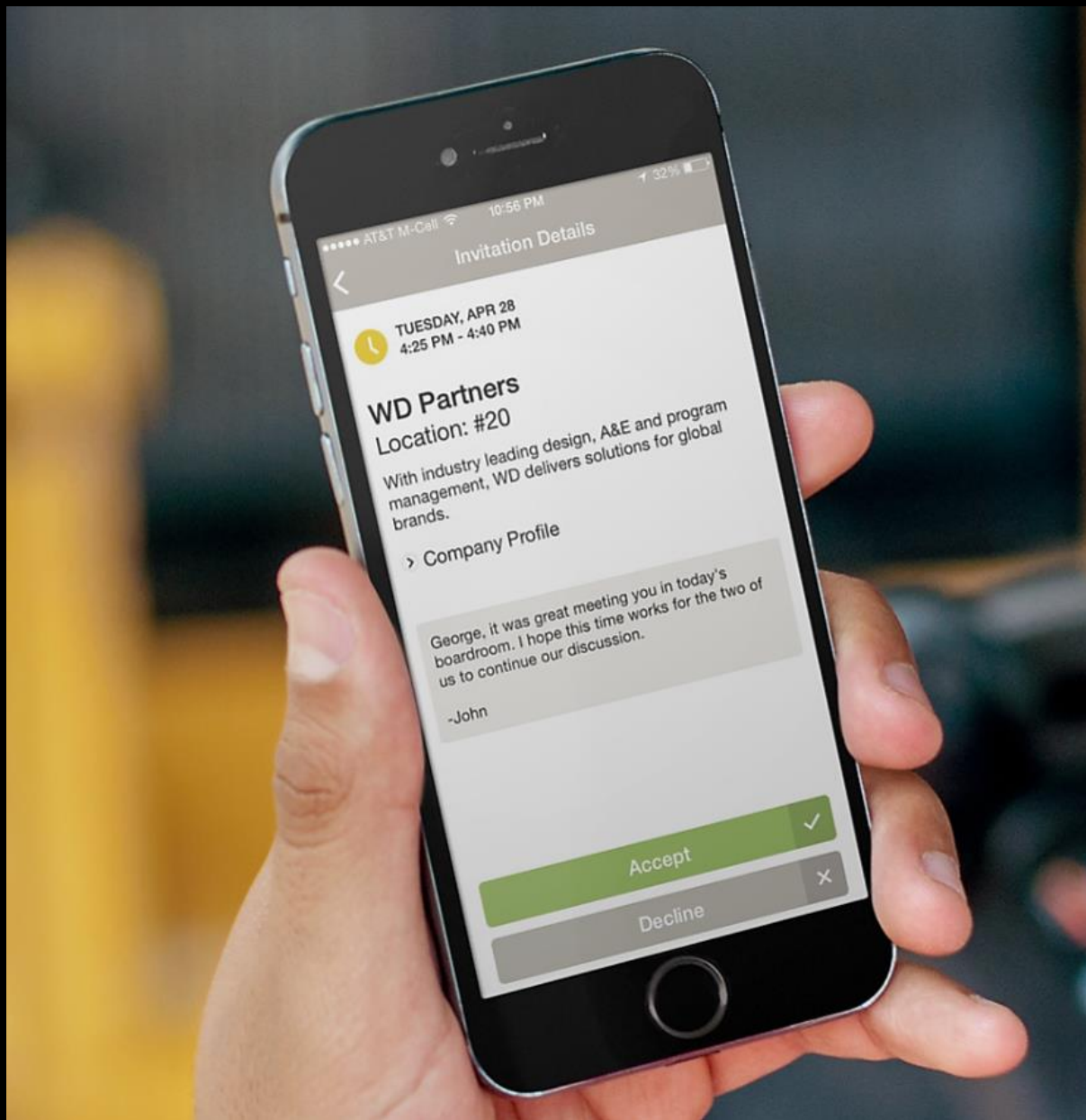


Up to 75%
shared code

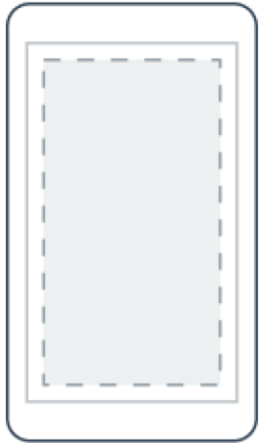
Xamarin Forms



Up to 90%
shared code



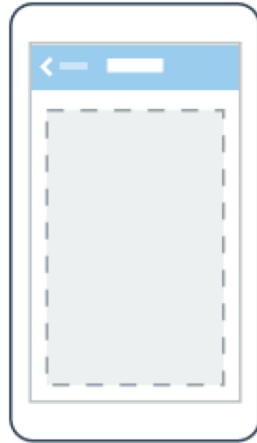
Xamarin Forms Page Layouts



ContentPage



MasterDetailPage



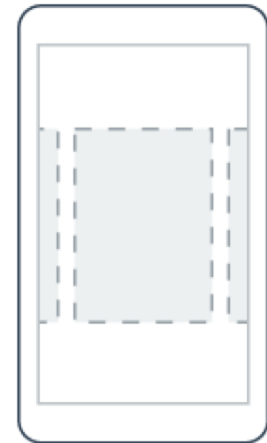
NavigationPage



TabbedPage



TemplatedPage



CarouselPage

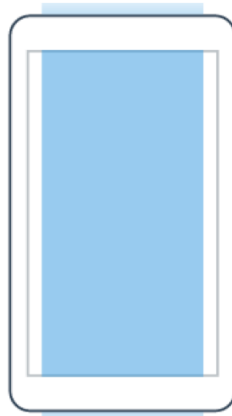
Xamarin Forms Content Layouts



ContentPresenter



ContentView



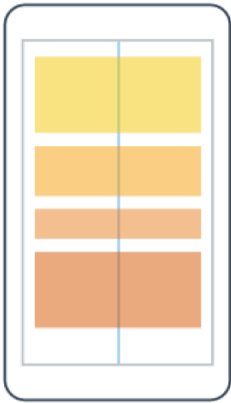
ScrollView



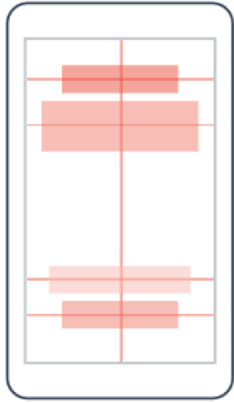
Frame



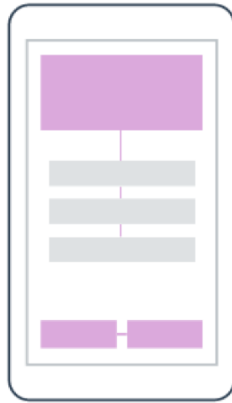
TemplatedView



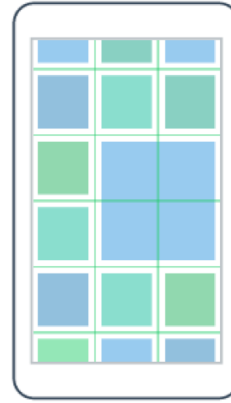
StackLayout



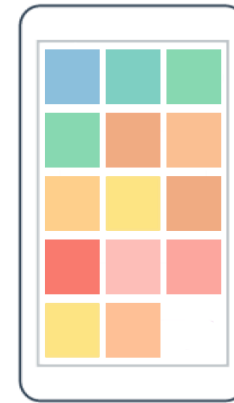
AbsoluteLayout



RelativeLayout



Grid

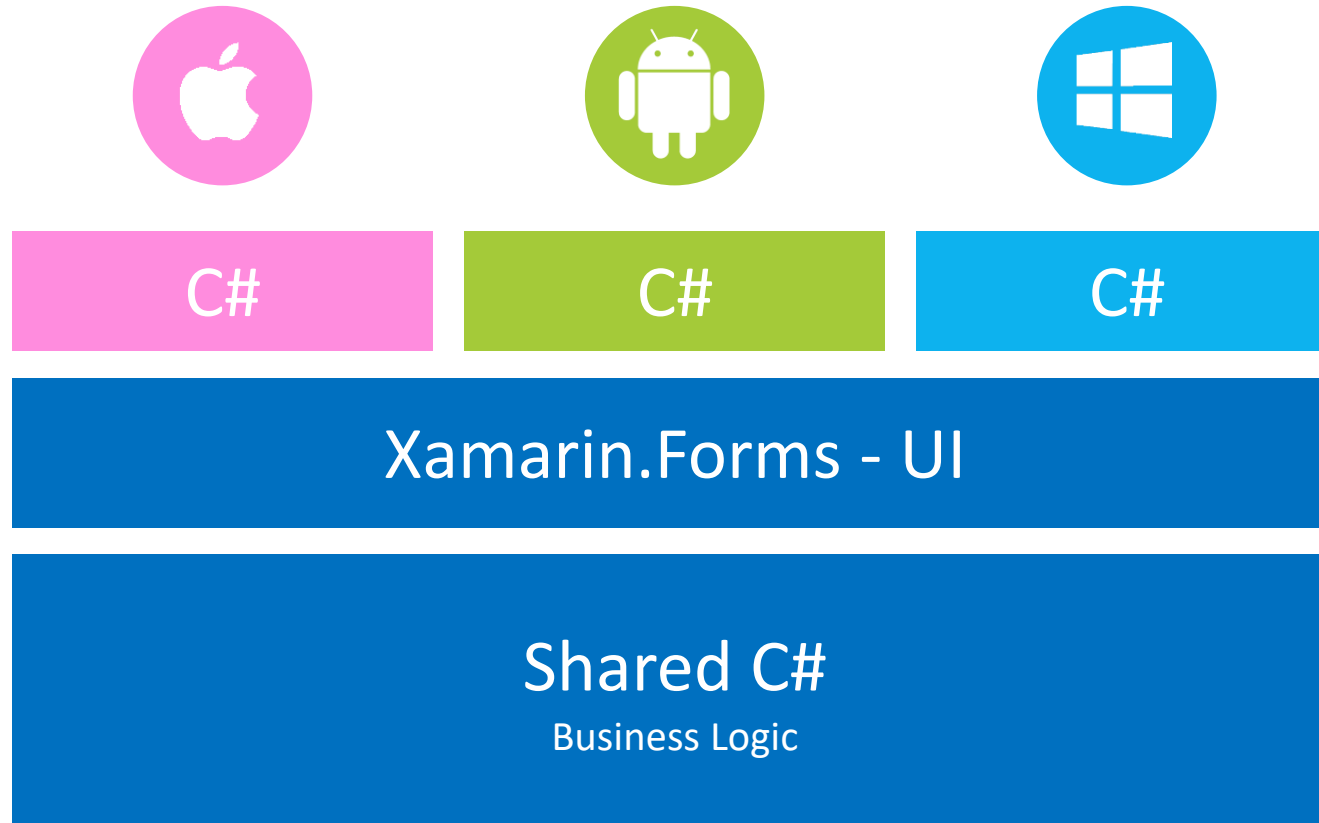


FlexLayout

Xamarin Forms Views

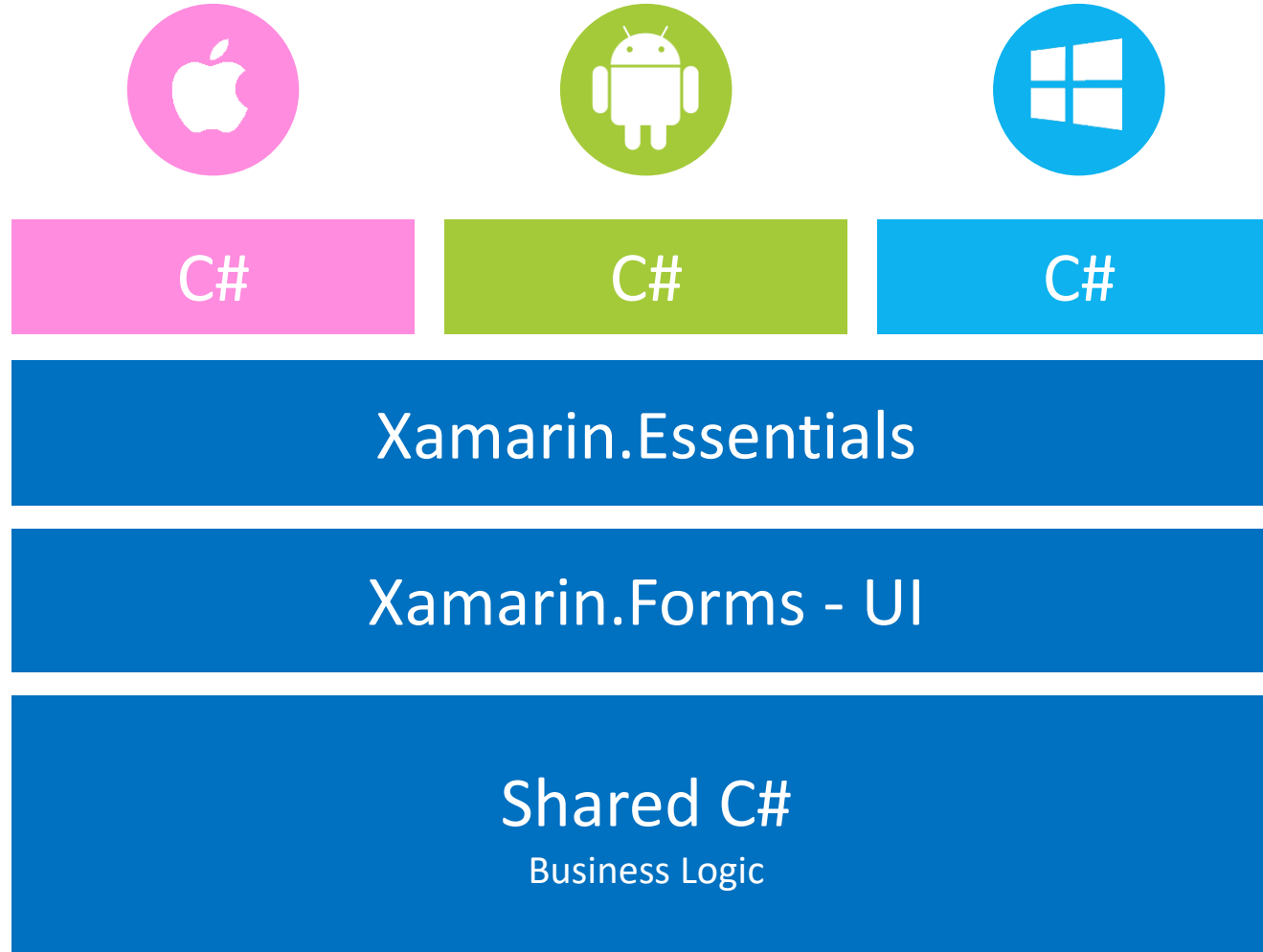
Controls				
ActivityIndicator	BoxView	Button	DatePicker	Editor
Entry	Image	Label	ListView	Map
OpenGLView	Picker	ProgressBar	SearchBar	Slider
Stepper	TableView	TimePicker	WebView	EntryCell
ImageCell	SwitchCell	TextCell	ViewCell	

Xamarin Forms



Upwards of
90% shared
code

Xamarin Essentials



Upwards of
98% shared
code

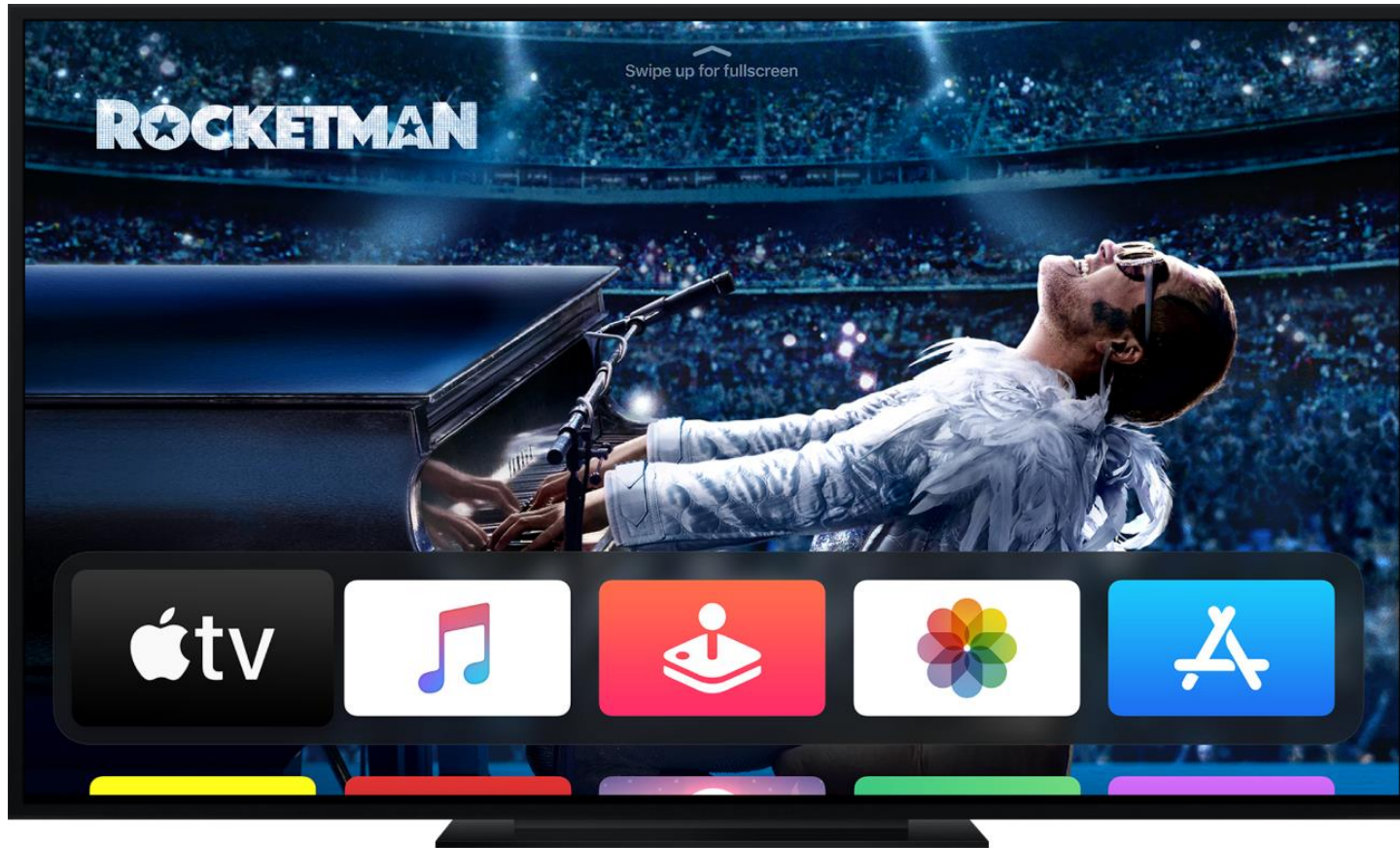
Xamarin Essentials

Accelerometer	Color Converters	Email	Launcher	Permissions	SMS
App Information	Compass	File System Helpers	Magnetometer	Phone Dialer	Text-to-Speech
App Theme	Connectivity	Flashlight	MainThread	Platform Extensions	Unit Converters
Barometer	Detect Shake	Geocoding	Maps	Preferences	Version Tracking
Battery	Device Display Information	Geolocation	Open Browser	Secure Storage	Vibrate
Clipboard	Device Information	Gyroscope	Orientation Sensor	Share	Web Authenticator



watchOS & Android Wear

- C# and .NET
- Xamarin Native and Xamarin Essentials
- Backend code can be shared
- Release through Apple App Store and Google Play



tvOS & Tizen

- C# and .NET
- Xamarin Native and Xamarin Forms
- Full access to Native APIs
- Backend code can be shared
- Release through Apple TV's App Store



Demo

Developing with Xamarin

- One language C#
- Shared code
- Access to all .NET Standard features
- Automated testing
- One editor – Visual Studio
- Compiles Natively for each device
- Increased productivity



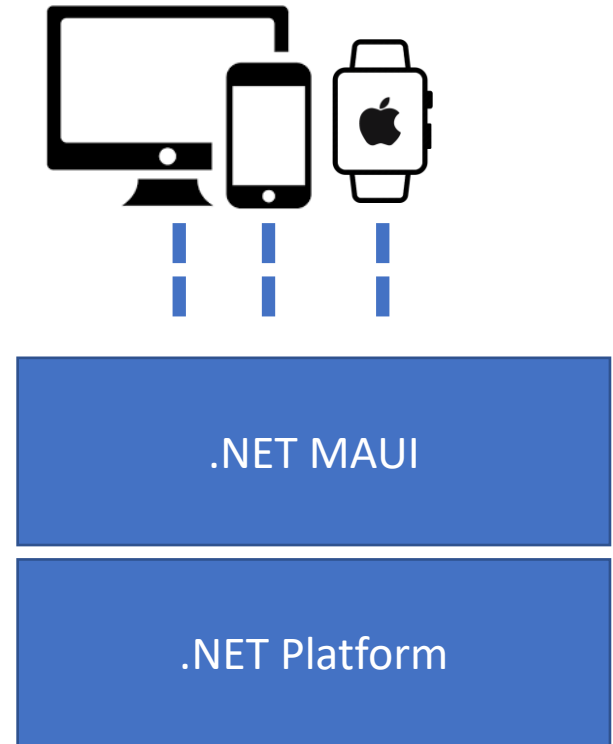
Xamarin Productivity Boosts

- XAMLC
- Design-time data
- MVVM Pattern
- Open-source libraries and frameworks
- Custom controls or third-party controls
- XAML Hot Reload for Xamarin Forms
- Xamarin Hot Restart



.NET Multi-platform App UI (MAUI)

- Evolution of Xamarin.Forms
- Cross-platform native UI
- Deploy to mobile and desktop
- Planned to be incorporated in .NET 6 in 2021
- Xamarin.Forms -> System.Maui
- Xamarin.Essentials -> System.Devices
- File | New | Multi-platform App UI



Key Takeaways

- Xamarin is a cross-platform, open source technology for developing mobile apps
- Xamarin, now owned by Microsoft is fully supported and will be rolled into .NET
- Xamarin apps are compiled natively and are highly performant
- Use your existing .NET skills, teams and code
- Share up to 98% of code across platforms
- Target watchOS and tvOS with shared code

References

Xamarin Forms

- <https://docs.microsoft.com/en-us/xamarin/xamarin-forms/>

Xamarin Forms Controls

- <https://docs.microsoft.com/en-us/xamarin/xamarin-forms/xaml/xaml-controls>

Xamarin Essentials

- <https://docs.microsoft.com/en-us/xamarin/essentials/>

Xamarin iOS Samples

- <https://github.com/xamarin/ios-samples/tree/main/tvos>
- <https://github.com/xamarin/ios-samples/tree/main/watchOS>

References

IconFont2Code

- <https://andreinitescu.github.io/IconFont2Code/>

Xamarin.Forms release notes

- <https://docs.microsoft.com/en-us/xamarin/xamarin-forms/release-notes/4.6/4.6.0>

Good looking Xamarin.Forms examples

- <https://github.com/jsuarezruiz/xamarin-forms-goodlooking-UI>

The Xamarin Show

- <https://channel9.msdn.com/Shows/XamarinShow>

Questions?

Craig Howard

[linkedin.com/in/craigmhoward](https://www.linkedin.com/in/craigmhoward)

craig@ascendle.com

ascendle.com

