

React Native for Windows

Glamping in a swarm of bugs

Aaron Wirth

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JULY 29TH - AUG. 1ST



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SOFTWARE CO





Aaron Wirth

- Software Developer at Modus
- Professional human
- Amateur Golfer / Dog Enthusiast / Traveler
- University of Wisconsin - Eau Claire

Agenda

1 | Getting the fire started

Quick look back on how we went from WinRT to RNW (and the dozens of other acronyms we passed on the hiking trail)

2 | Toasting some marshmallows

Demo time: Let's "build" a basic React Native for Windows app and experience the marshmallow-y goodness

3 | Deciding if it's worth making the s'more

Review time: React Native is great but it's not without its short comings.

Also, let's be honest, sometimes the graham crackers are on the other side of the fire and it's just not worth getting out of the camp chair

4 | Reflecting on our dessert choices

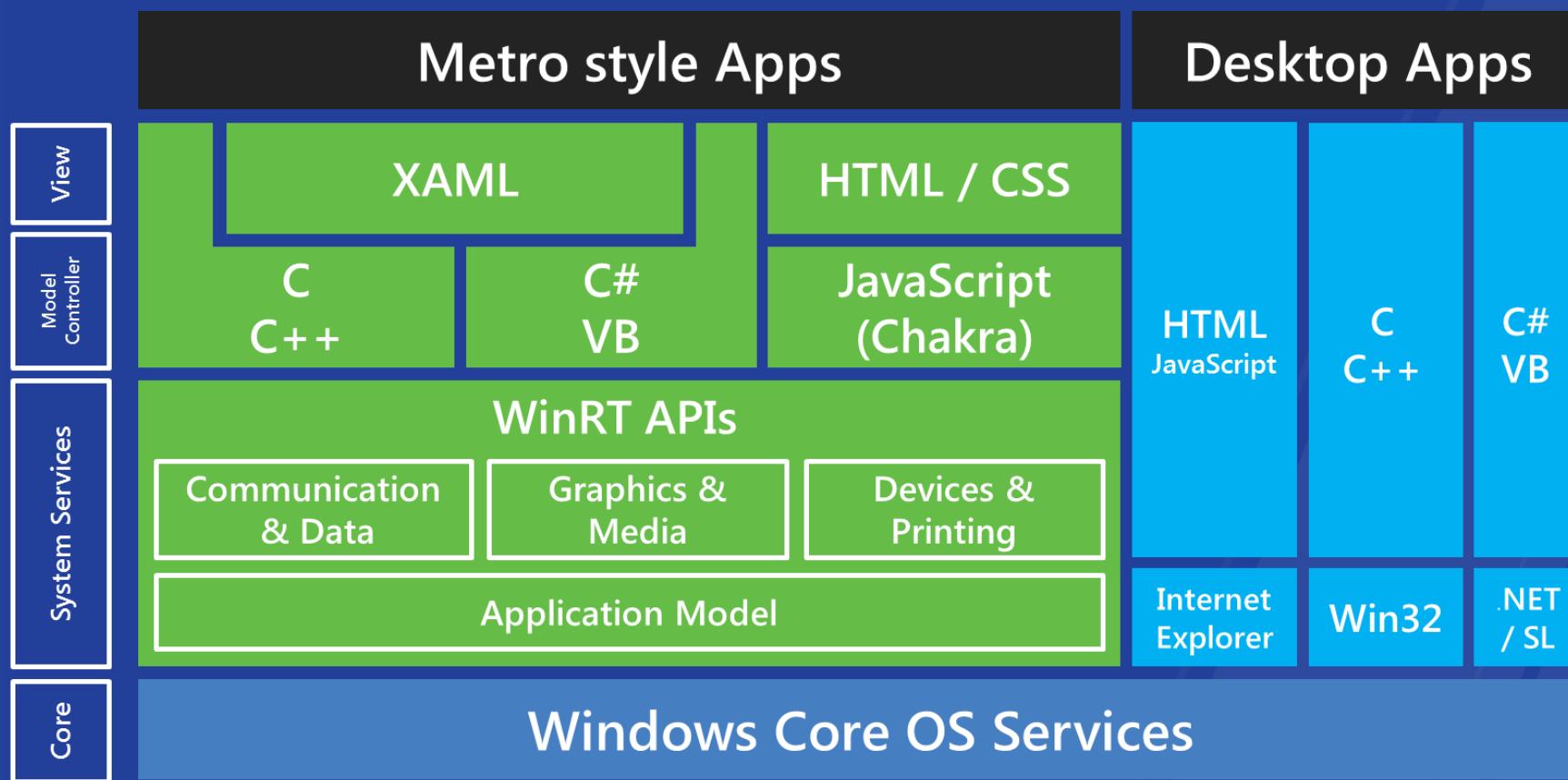
Question time. Maybe some answers.

An Adventure of Sorts



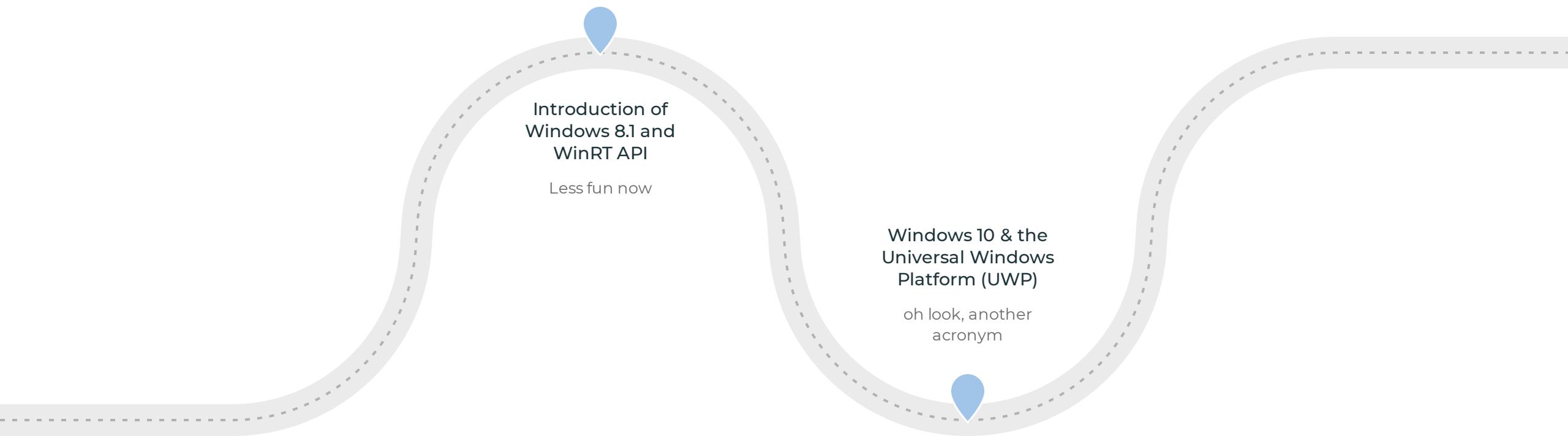
Introduction of
Windows 8.1 and
WinRT API

Runtime, more like
Fun-time.....



An Adventure of Sorts

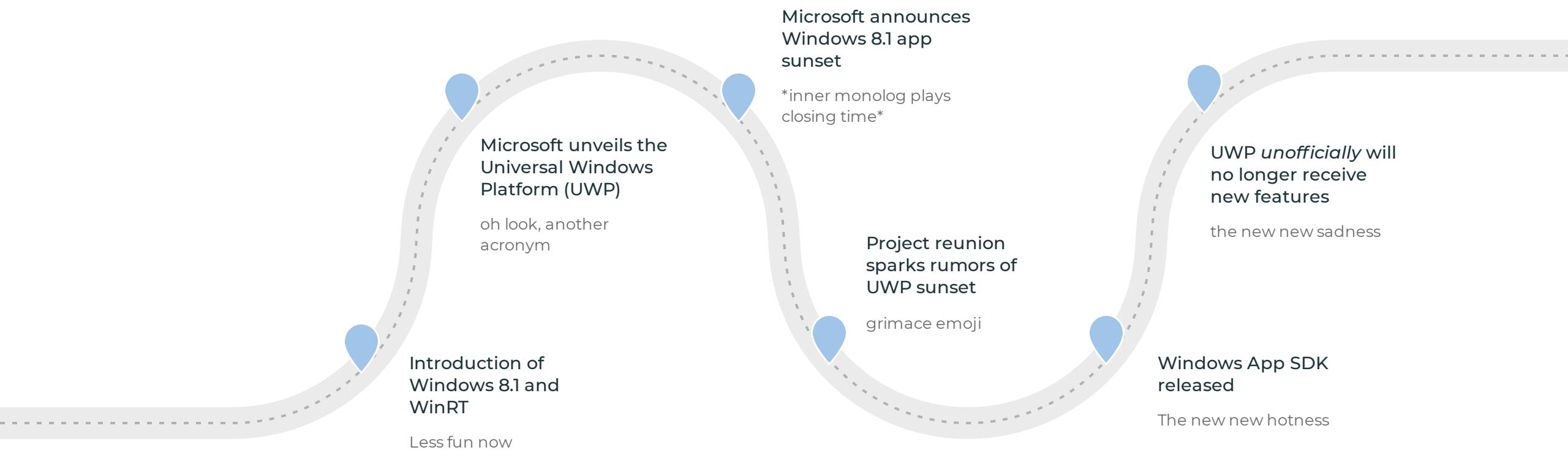
The Short but Perilous Journey of Windows Application Development





An Adventure of Sorts

The Short but Perilous Journey of Windows Application Development



Windows App SDK - Calling all Windows developers!

Previously known as Project Reunion.

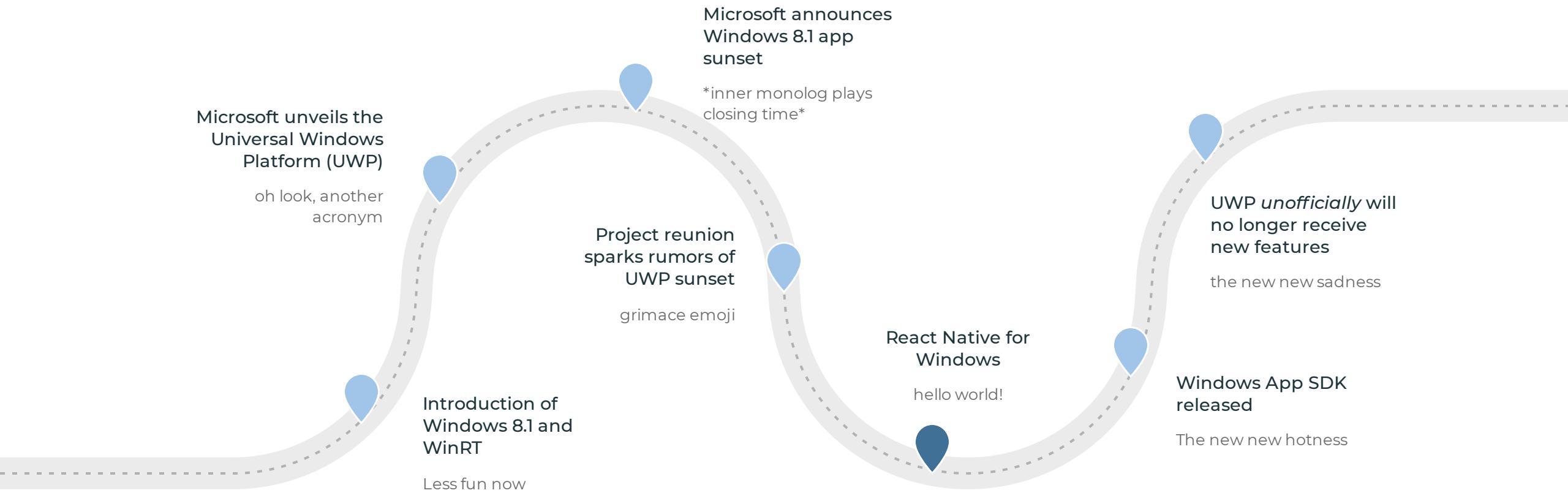
Delight users with modern UI	Access new platform features	Backwards compatible
 Powerful WinUI 3 UI	 Localization + power status + more	 Down to Windows 10 1809

...and more, without having to rewrite your app!

- Use your current installer (*no requirement to use MSIX, but there are reliability/security benefits to using MSIX!*)
- Additive platform APIs (*only add what you need, leave the rest of your app as-is*)
- Works with Win32, WPF, WinForms, and more apps

An Adventure of Sorts

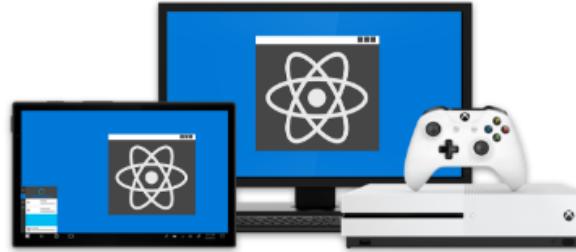
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React Native for Windows + macOS



Bring your React Native apps to some of the most powerful devices out there

Written in JavaScript—rendered with native code

React primitives render to native platform UI, meaning your app uses the same native platform APIs other apps do.

Many platforms, one React. Create platform-specific versions of components so a single codebase can share code across platforms. With React Native, one team can maintain multiple platforms and share a common technology—React.

```
import React from 'react';
import {Text, View} from 'react-native';
import {Header} from './Header';
import {heading} from './Typography';

const WelcomeScreen = () => (
  <View>
    <Header title="Welcome to React Native"/>
    <Text style={heading}>Step One</Text>
    <Text>
      Edit App.js to change this screen and turn it
      into your app.
    </Text>
    <Text style={heading}>See Your Changes</Text>
    <Text>
      Press Cmd + R inside the simulator to reload
      your app's code.
    </Text>
```

DEMO



Setup

Installing those pesky dependencies

```
Administrator: Windows PowerShell
Windows PowerShell
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Try the new cross-platform PowerShell https://aka.ms/pscore6

C:\WINDOWS\system32> iex (New-Object System.Net.WebClient).DownloadString('https://aka.ms/rnw-vs2022-deps.ps1');
Checking Free space on current drive > 15 GB          OK
Checking Installed memory >= 16 GB      Failed (warn)
Checking Windows version >= 10.0.17763.0          OK
Checking Developer mode is on          OK
Checking Long path support is enabled          OK
Checking Visual Studio 2022 (>= 17.3) & req. components  Failed
you want to install? [y/N]:
```

```
Administrator: Windows PowerShell
Windows PowerShell
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Try the new cross-platform PowerShell https://aka.ms/pscore6

PS C:\WINDOWS\system32> iex (New-Object System.Net.WebClient).DownloadString('https://aka.ms/rnw-vs2022-deps.ps1');
>>
Checking Free space on current drive > 15 GB          OK
Checking Installed memory >= 16 GB      OK
Checking Windows version >= 10.0.17763.0          OK
Checking Developer mode is on          OK
Checking Long path support is enabled          OK
Checking Visual Studio 2022 (>= 17.3) & req. components  OK
Checking Node.js (LTS, >= 16.0)          OK
Checking Yarn          OK
Checking .NET SDK (LTS, = 6.0)          OK
All mandatory requirements met.

Press Enter to exit:
```

Setup

Setup React Native, add Windows, and run

```
npx react-native init <projectName> --template "react-native@^0.72.0"
```



```
npx react-native-windows-init --overwrite --language cs
```



```
npx react-native run-windows
```



Setup

C#-hoosing your project language

	C++ APP	C# APP
C++ Module	✓	✓
C++ Module w/ C++ NuGet Dependency	✓	✓
C++ Module w/ C# NuGet Dependency	✗	✗
C# Module	✗	✓
C# Module w/ C# NuGet Dependency	✗	✓
C# Module w/ C++ NuGet Dependency	✗	✓



Takeaways

- ✓ Easy to get started
- ✓ Dev experience
 - Hot reloading. Chef's kiss
- ✓ Native performance
- ✓ Large community
- ✓ Actively Maintained
 - RNW team is good at keeping it up to date with latest RN version
- ✓ Staying Power
- ✗ It's still very new
 - i.e. buggy
- ✗ Compile and build times are long
- ✗ Microsoft hasn't proven very trustworthy as of late
 - We've been burned before
- ✗ 3rd party libraries are messy for windows
 - The biggest pain point by far



Questions?

Session Feedback



<https://that.land/43ij8lj>

