



Build Windows Store Apps using JavaScript

Mark A. Wilson

SENIOR .NET DEVELOPER


MarkW@LogicalAdvantage.com

Twitter: @DeveloperInfra



LogicalAdvantage.com





Windows Store apps can be built using standards-based HTML, CSS, and JavaScript.



LogicalAdvantage.com





Windows Store apps using JavaScript support most HTML5 features, such as the canvas, SVG, video, and audio elements. They also support most Cascading Style Sheets, Level 3 (CSS3) features, such as 2D transforms, 3D transforms, transitions, and animations.

In general, writing HTML for a Windows Store app using JavaScript is a lot like writing HTML for Internet Explorer 10 running in standards mode.



LogicalAdvantage.com






IE10 Trident + Chakra

CSS 2D Transforms
CSS 3D Transforms
CSS Animations
CSS Backgrounds & Borders
CSS Color
CSS Flexbox
CSS Fonts
CSS Grid
CSS Hyphenation
CSS Image Values (Gradients)
CSS Media Queries
CSS multi-column Layout
CSS Namespaces
CSS OM Views
CSS Positioned Floats (Exclusions)
CSS Selectors
CSS Transitions
CSS Values and Units
Data URI
DOM Element Traversal

DOM HTML
DOM Level 3 Core
DOM Level 3 Events
DOM Style
DOM Traversal and Range
DOMParser and XMLSerializer
ECMAScript 5 (Dec 2009)
File Reader API
File Saving
FormData
HTML5 Application Cache
HTML5 async
HTML5 BlobBuilder
HTML5 Canvas
HTML5 Drag and drop
HTML5 Forms and Validation
HTML5 Geolocation
HTML5 History API
HTML5 Parser
HTML5 Sandbox

HTML5 Selection
HTML5 semantic elements
HTML5 track
HTML5 video and audio
JavaScript Typed Array
ICC Color Profiles
IndexedDB
Page Visibility
Pointer (Mouse, Pen, and Touch) Events
RequestAnimationFrame
Navigation Timing
Selectors API Level 2
SVG Filter Effects
SVG, standalone and in HTML
Web Messaging
Web Sockets
Web Workers
XHTML/XML
XMLHttpRequest (Level 2)
XMLHttpRequest CORS



If you can build a Windows Store app using standards-based HTML, CSS, and JavaScript...

...can you use your skills?

...can you reuse your existing code?

...can you use popular frameworks?

QUESTIONS?



LogicalAdvantage.com





Application Model

Navigation

OS Integration

Persistence

Trust

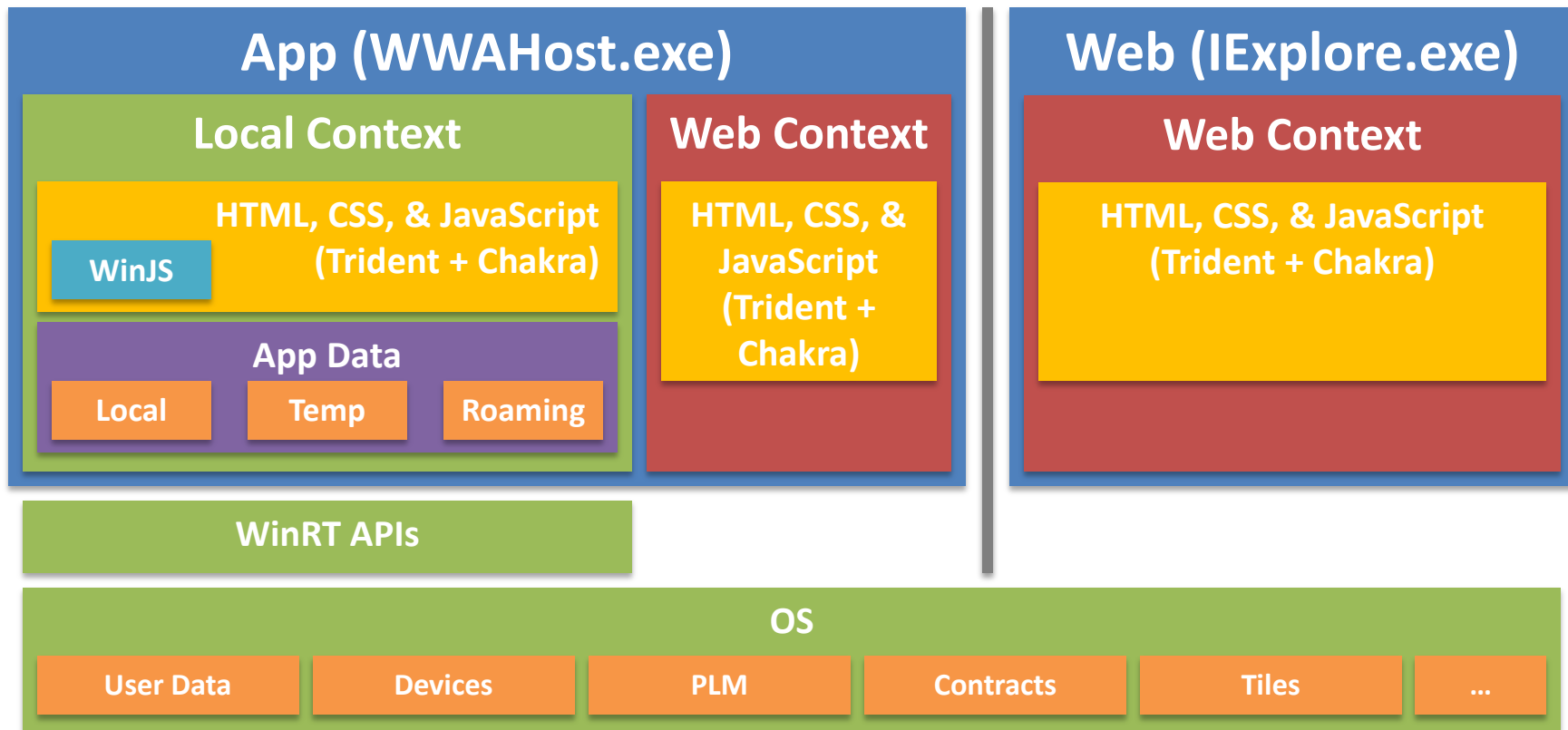
APP != WEBSITE



LogicalAdvantage.com



Trust via Different Sandboxes





<http://msdn.microsoft.com/en-us/library/windows/apps/hh700404.aspx>

HTML & DOM API CHANGES LIST



LogicalAdvantage.com





Using JavaScript

DEMO



LogicalAdvantage.com





Context

Feature	Local Context	Web Context
Windows Runtime (WinRT)	Yes	No
Windows Library for JavaScript (WinJS)	Yes	Partial
JavaScript URIs (attribute="javascriptCode")	No	Yes
Data URIs ("data:") for fonts	No	Yes
External script references (<script src="http://..." />)	No	Yes
window.close	Yes	No
Cross-domain XHR requests	Yes	No



AngularJS + ASP.NET Web API + Windows Store App


<https://github.com/DeveloperInfra/Bookshelf-poc>

BOOKSHELF POC



LogicalAdvantage.com





```
MSApp.execUnsafeLocalFunction(function() {  
    element.innerHTML = '...';  
});
```

TRUST ME, I KNOW WHAT I'M DOING!



LogicalAdvantage.com





Tips & Tricks / Pragmatic Advice

- AngularJS, Backbone, Ember, etc.
 - www.TodoMVC.com
- PhoneGap
- “One” Code Base, Multi-Screen
- ASP.NET MVC vs. HTML





Great Windows Store Apps

- Process Lifetime Management (PLM)
- Screen Resize & View State
- Contracts
- Live Tiles & Notifications





Great Windows Store Apps

- Use WinJS Controls (DatePicker, List/GridView)
- Use WinJS Animations (enterPage, exitPage)
- Use Commanding Surfaces (Charms, App Bar)
- Leverage MSPointer (pointerDown, pointerUp)





Resources

- Start Building: <http://build.windowsstore.com/>
- MSDN Dev Center: <http://msdn.microsoft.com/en-us/windows/apps>
- The basics: <http://msdn.microsoft.com/en-US/windows/apps/jj679957>
- Download a VM: (For Mac, Linux, or Windows) <http://www.modern.ie/en-us/virtualization-tools#downloads>



Links

- Abstracts & Source Code:
www.github.com/DeveloperInfra
- Slides: www.speakerdeck.com/DeveloperInfra
- Email: MarkW@LogicalAdvantage.com
- Twitter: www.twitter.com/DeveloperInfra



SOFTWARE
CONSULTING
APPLICATION
DEVELOPMENT
WORKFORCE
MANAGEMENT SOLUTIONS



LOGICAL
ADVANTAGE™

Mark A. Wilson

MarkW@LogicalAdvantage.com

Twitter: @DeveloperInfra