Shipping Web APIs to customers

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Step 1: Design & Implementation
Web APIs stick once shipped forever

...so you need to get it right the first time!
Think about the API
Part of implementing is critiquing the spec

• Consider developer experience: If I’m a web developer:
  • Is it easy / intuitive to use?
  • Is it consistent with other APIs?
  • How does it interact with other APIs?

• Consider user experience: If I’m an end user, is there any unexpected behavior?

• Does the spec need clarification?
Did you answer yes to any of the previous questions?

Get involved in web standards :)
Build demos
Demos ≠ Testcases

• Show how developers will use the API (developer experience)
• Show what the end users will experience (user experience)
• How you would communicate the API in a blog / social media post
• Helps communicate the value of what you’re building
Demos influence every step of the process

Things that you’ll think about

• Is this the right API design?
• What’s the best way to implement this?
• How does it interact with other features?
• What do I need to test?
• They help you find unexpected bugs!
Step 2: Test your implementation
Improve web platform tests
...and fix them if needed

• Do they match the spec in every detail?
• Are they exhaustive?
• Test behavior, not just syntax
• Test the functionality in your demo!
Add a feature flag
For pre-release testing

• See UnifiedWebPreferences.yaml

• We recently overhauled our feature flags system with 4 different types: stable, preview, testable, unstable


Step 3: Shipping
Some measures of quality

- Web Platform Tests pass rates
- Interoperability
- Performance & Power
  - Through testcases / demos
  - Work with Apple if needed to run internal benchmarks
- How well do your demos work?
Check what customers see

- Test in Safari Technology Preview once available, not just MiniBrowser
  - Feature might interact with Safari features like autofill or reader mode
- Test on iOS (and work with Apple if needed)
- Test your demos :)
- Ensure spec / implementation / tests are all aligned!
How to toggle feature flags?

To test in Safari Technology Preview

• Enable the debug menu:
Ship 🚢
Celebrate! 🍰

...and fix regressions

but you can eat the cake first
Some possible followups

- Tools for web developers
- Tools for WebKit debugging
Q & A