What’s New in Safari

Jessie Berlin, Safari and WebKit Engineer
What’s New in Safari

Desktop-class browsing on iPad
Improvements to Safari Extensions
Following links on macOS
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Listen to DeJuan Turner’s new album Deep Time

DeJuan Turner continues to explore the funk roots of hip hop with his LP release of Deep Time. Layers of dense beats and fiery lyrics feature guest appearances by CC Wan and Eva “San Jose” Perez.

MUSIC / HIP.HOP
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WWDC 2019
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Legacy Safari Extensions

Content Blockers

Share Extensions

Safari App Extensions
Content Blockers  Share Extensions  Safari App Extensions
**Safari Extensions** allow Mac users to explore the web exactly the way you want. Find helpful information about a web page, display news headlines, or quickly access and share content to your favorite app and services. To get started, choose Preferences from the Safari menu, select the Extensions tab, and click the checkbox to turn on the extension.

- **1Password 7**: Password Manager. Generate & keep passwords. Get in-app purchases.
- **Ghostery Lite**: Fast, simple, safe browsing. Get.
- **Mate**: Universal Tab Translator. Translate in Safari & me. $29.99.
- **Ebates Rakuten Cash Back**: Lifestyle. Get.
- **NewsGuard**: News. Get.
- **MarsEdit 4**: Streamlined blog publishing. Get in-app purchases.
- **Blogo - Powerful blog editor**: Powerful blog editor. Get in-app purchases.
- **1Blocker**: Faster & Safer Web. Privacy protection, ad blockers. Get.
- **AdBlock for Safari**: Productivity. Get.
- **Raindrop.io for Safari**: All in One Bookmark Manager. Get.
New Safari App Extension APIs
Windows and Tabs
Opening full page web content

Navigate directly from the app extension process

Access to the baseURL in the app extension process

// Available in Safari 12.1
SFSafariExtension.getBaseURI { baseURL in
    guard let baseURL = baseURL else { return }
    tab.navigate(to: baseURL.appendingPathComponent("full_page_content.html"))
}
Iterate through all open windows and tabs

```swift
// Available in Safari 12.1
SFSafariApplication.getAllWindows { windows in
    for window in windows {
        window.getAllTabs { tabs in /* ... */ }
    }
}
```
Windows and Tabs
Accessing all windows and tabs

Iterate through all open windows and tabs

Access containing windows and tabs

// Available in Safari 12.1
SFSafariApplication.getAllWindows { windows in
  for window in windows {
    window.getAllTabs { tabs in /* ... */ }
  }
}
page.getContainingTab { tab in
  tab.getContainingWindow { window in /* ... */ }
}
Get the visible contents of a page

// Available in Safari 12.1
page.getScreenshotOfVisibleArea { image in
    // Image is the visible contents of the page.
}
Programmatically show and dismiss

// Available in Safari 12.1
window.getToolbarItem { toolbarItem in
    toolbarItem?.showPopover()
}

// From within SFSafariExtensionViewController
self.dismissPopover();
Delegate method called on navigation

// Added in Safari 13
func page(_ page: SFSafariPage, willNavigateTo url: URL?) {
    // Called for main navigations and redirects
}

Improvements for Content Blockers
Content Blocking Notifications

Safari App Extension Info.plist

```xml
<key>SFSafariAssociatedContentBlockers</key>
<array>
    <string>com.example.content-blocker</string>
</array>
```
Content Blocking Notifications

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```xml
<key>SFSafariAssociatedContentBlockers</key>
<array>
  <string>com.example.content-blocker</string>
</array>
```

Called when a resource is blocked

```swift
func contentBlocker(withIdentifier contentBlockerIdentifier: String,
                     blockedResourcesWithURLs urls: [URL], on page: SFSafariPage) {

  // Handle the content blocker notification.
}
```
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Links like this
iPad Apps for Mac
SFSafariViewController
Custom in-app web browsers
Universal Links on macOS
today's shiny
Universal Links on macOS
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### More Information

developer.apple.com/wwdc19/515

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