

#WWDC19

What's New in Safari

Jessie Berlin, Safari and WebKit Engineer

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Desktop-class browsing on iPad

Improvements to Safari Extensions

Following links on macOS

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JAMWIRE BEATS—DAILY



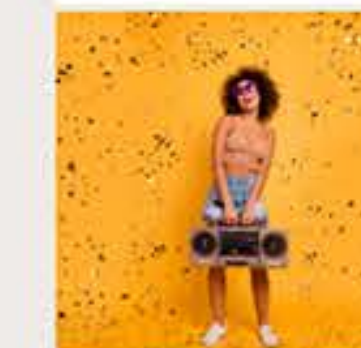
06.03.19

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](#)

LATEST



Tomiwa Alibi shares new singles "Trinket" and "Dancing Bird"



Eva "San Jose" Perez opens US tour with sold out West Coast dates



Hit producer Tejo Dama to launch new label featuring CoCo Weir, Farrah Tam



Jason Comet pulls out all the moves in latest video for "You Ain't Seen Nuthin"



Andrew Droog drops solo album and the critics can't stop obsessing about it



Jon-Jay Montemayor returns with new single "2Tonight"



The top 10 latest, greatest rap songs right now

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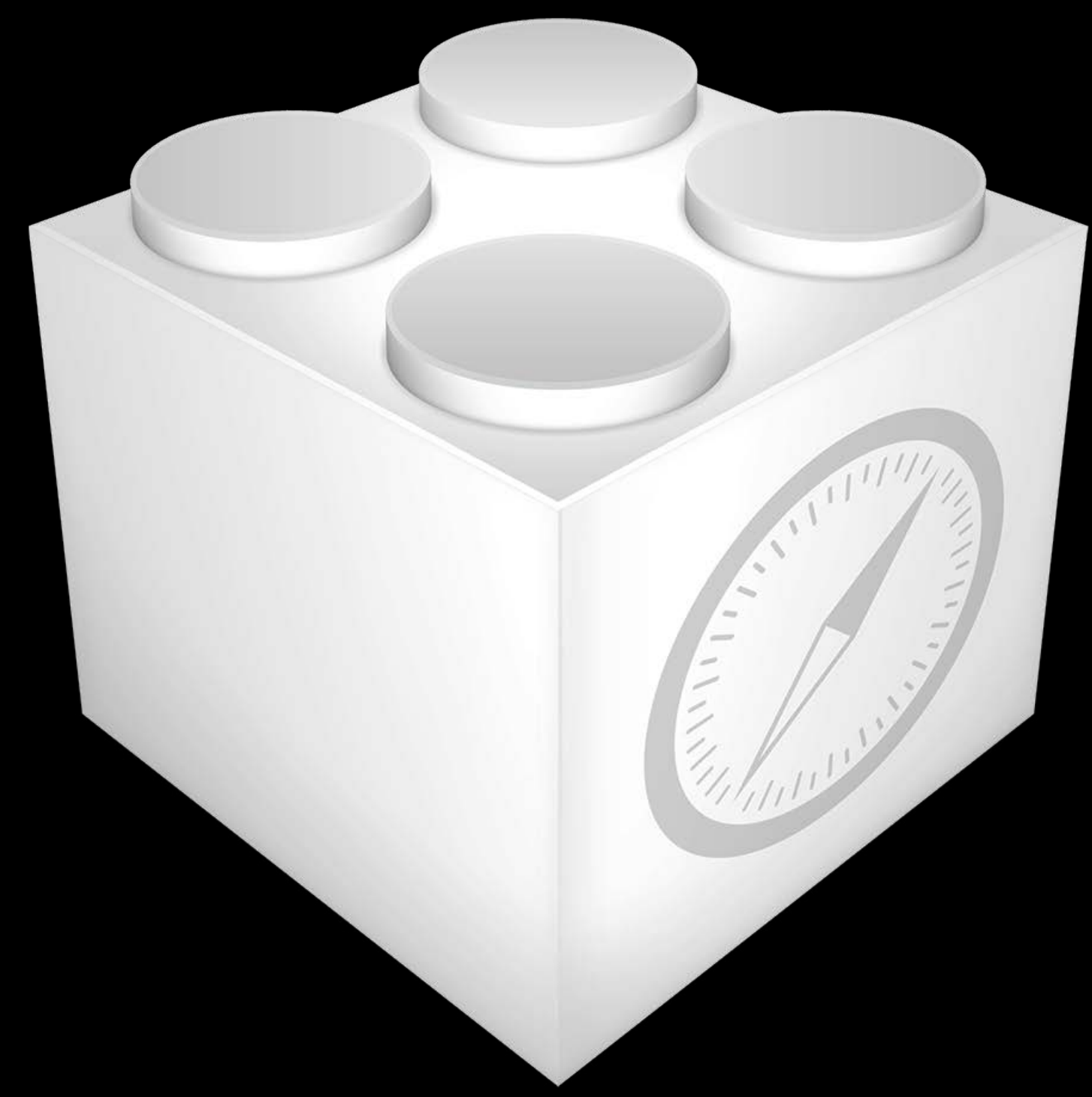
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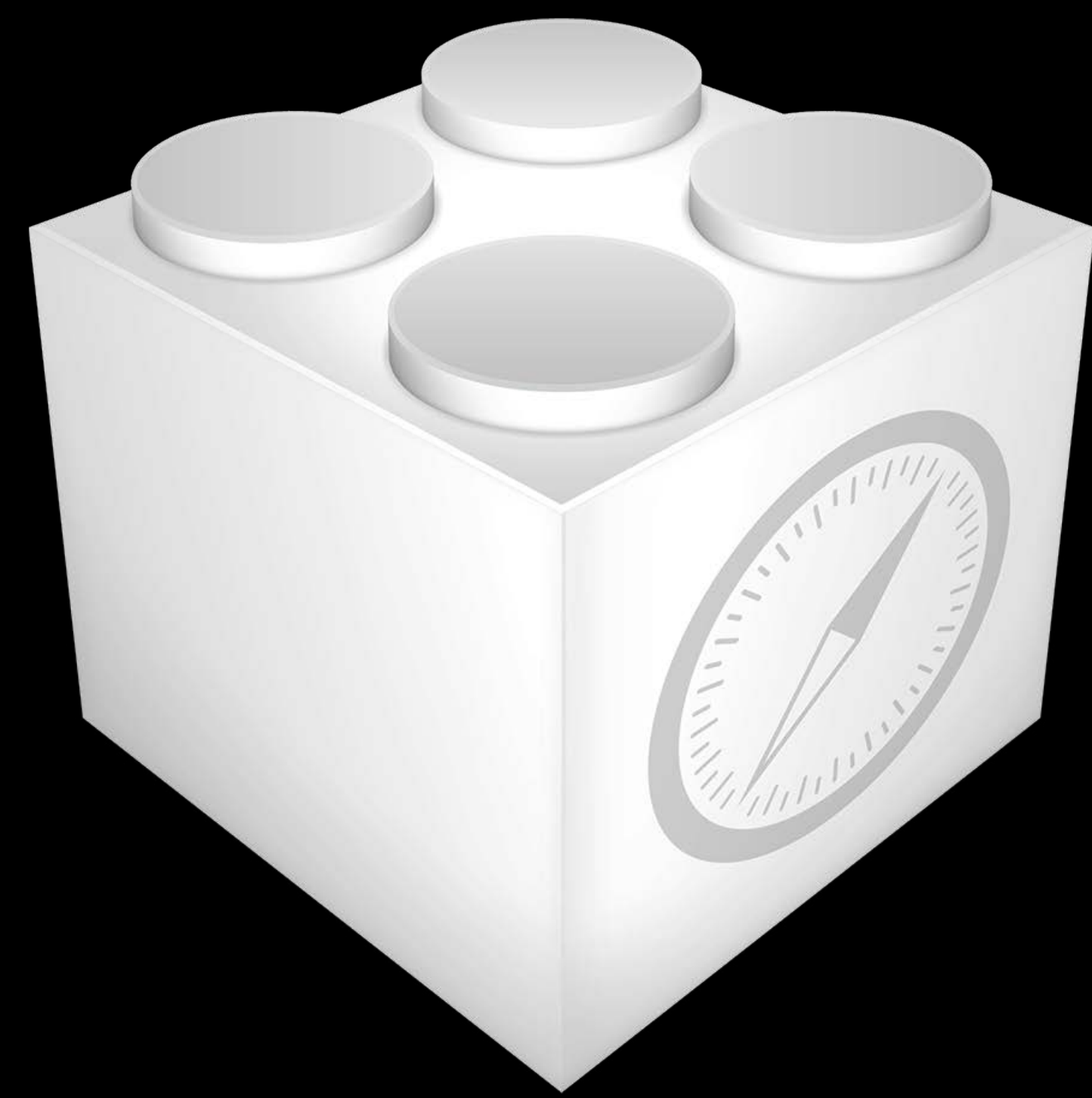
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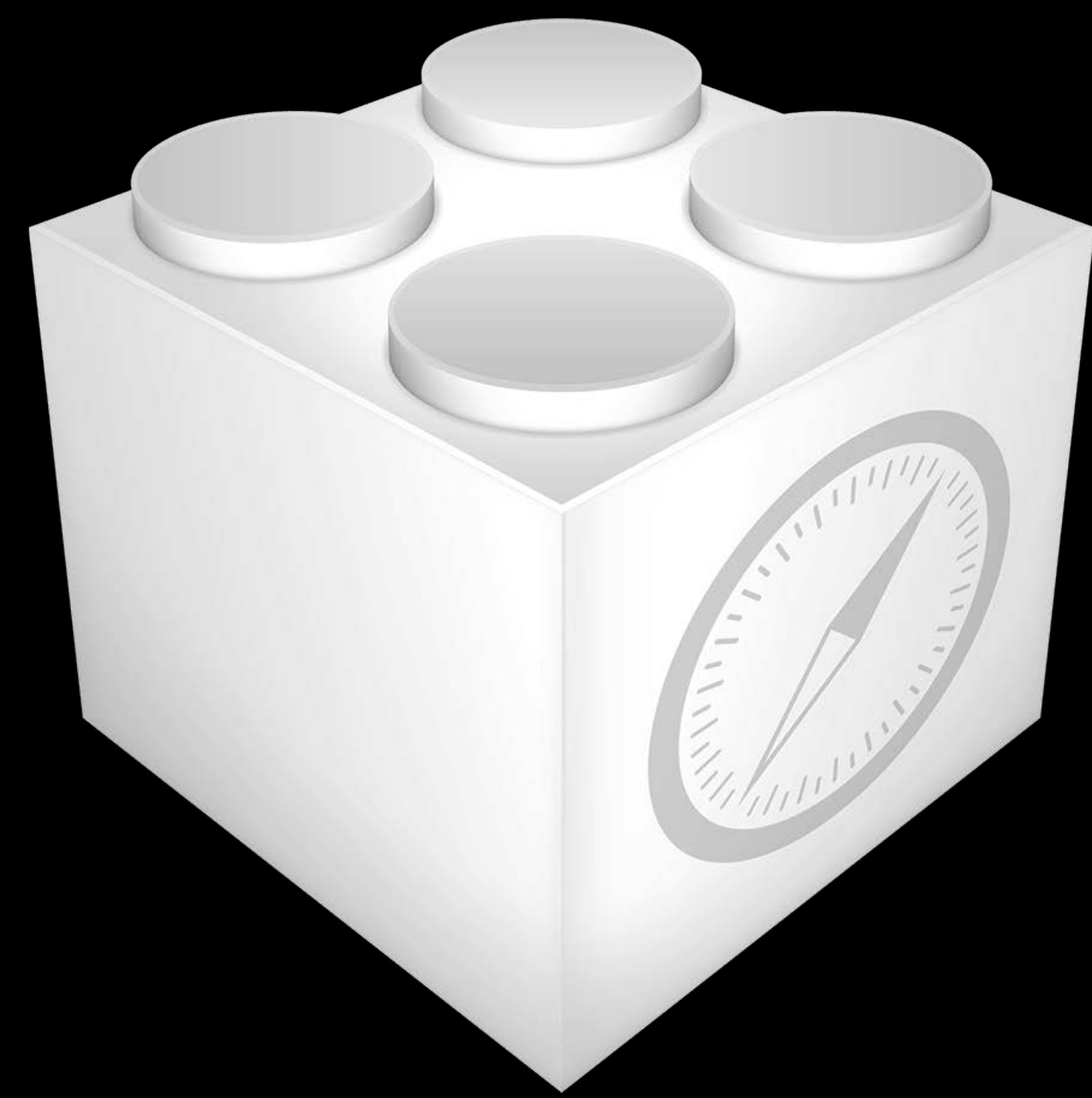
Legacy Safari
Extensions



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Extensions



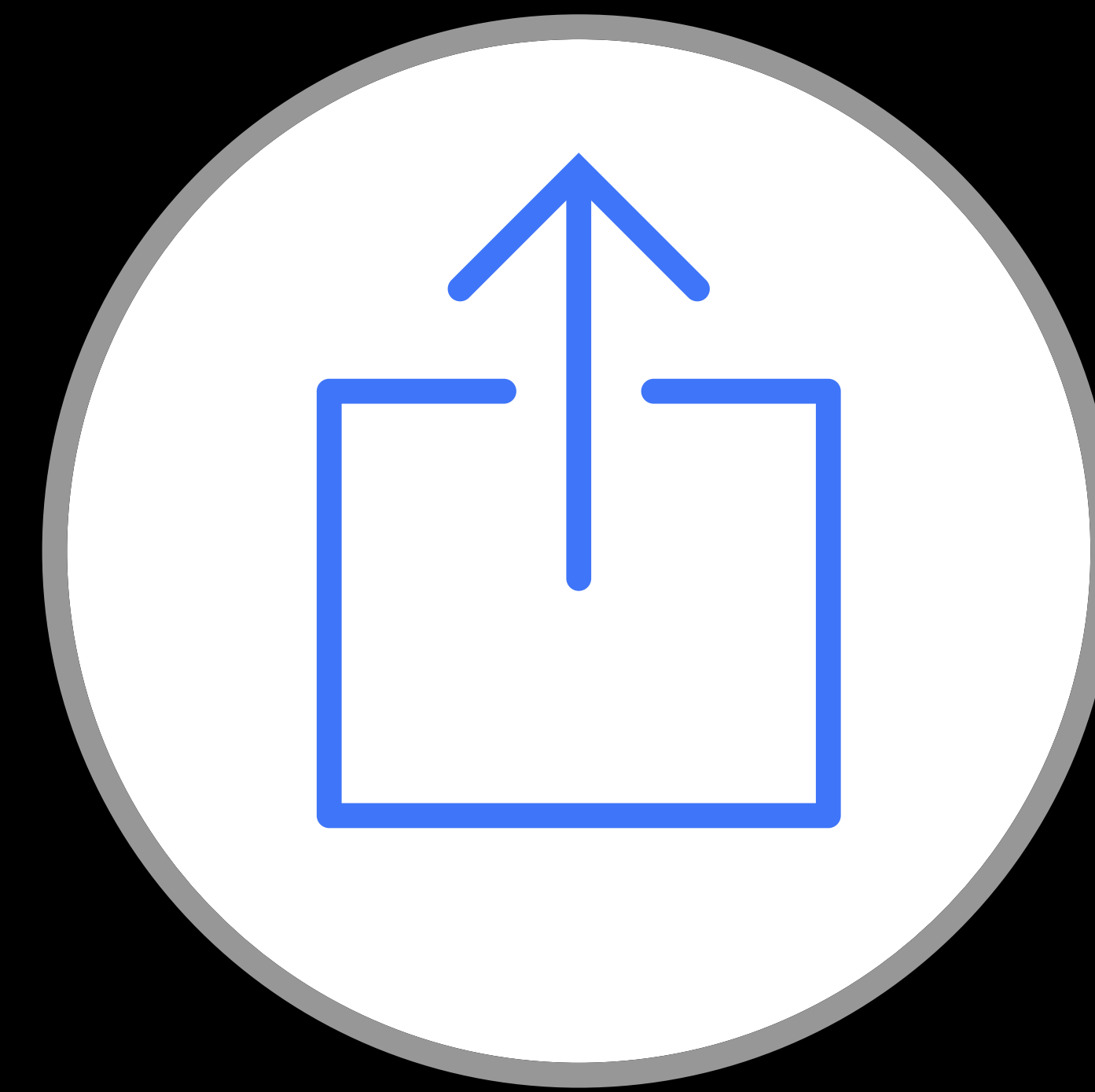
Content Blockers



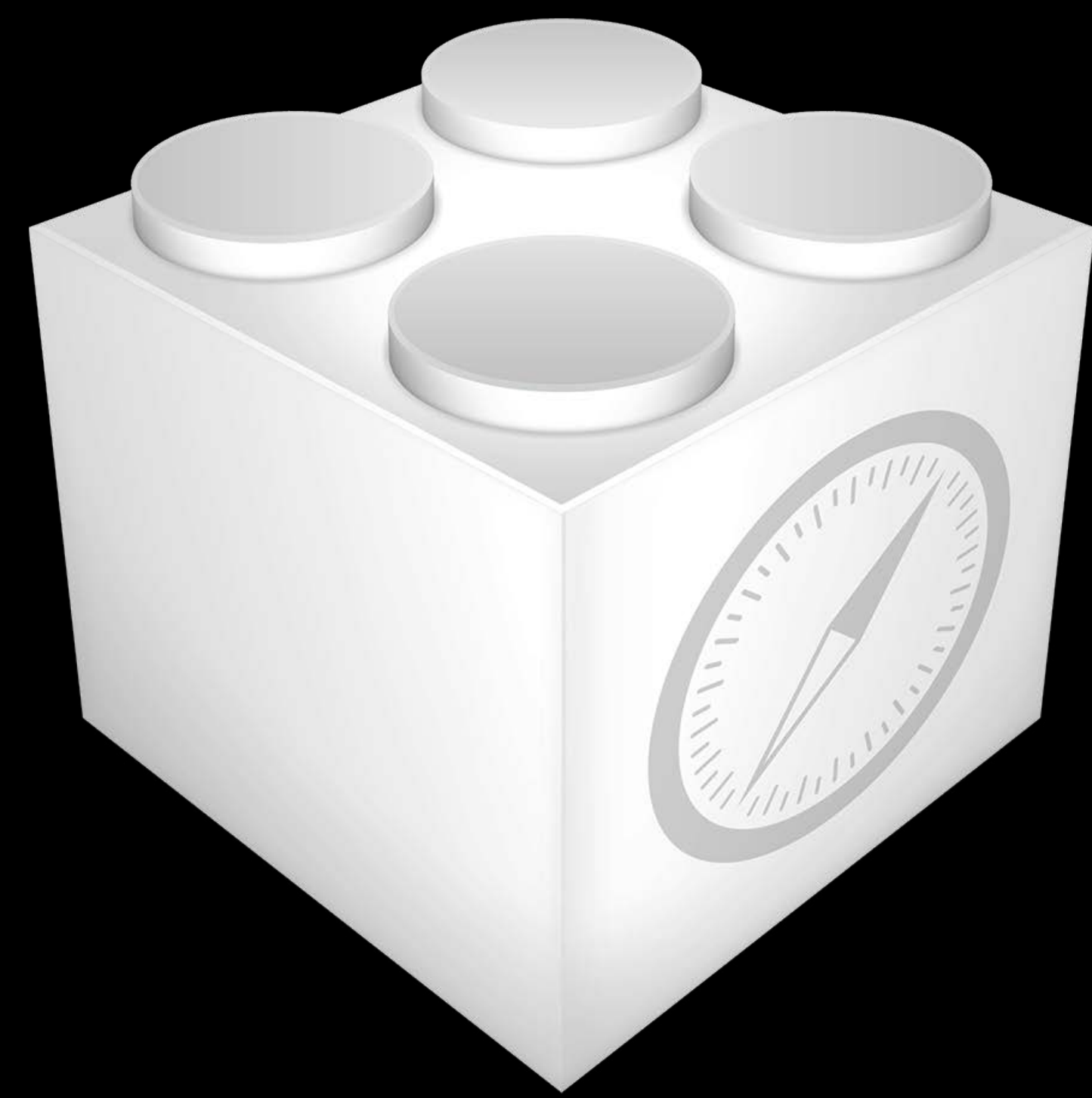
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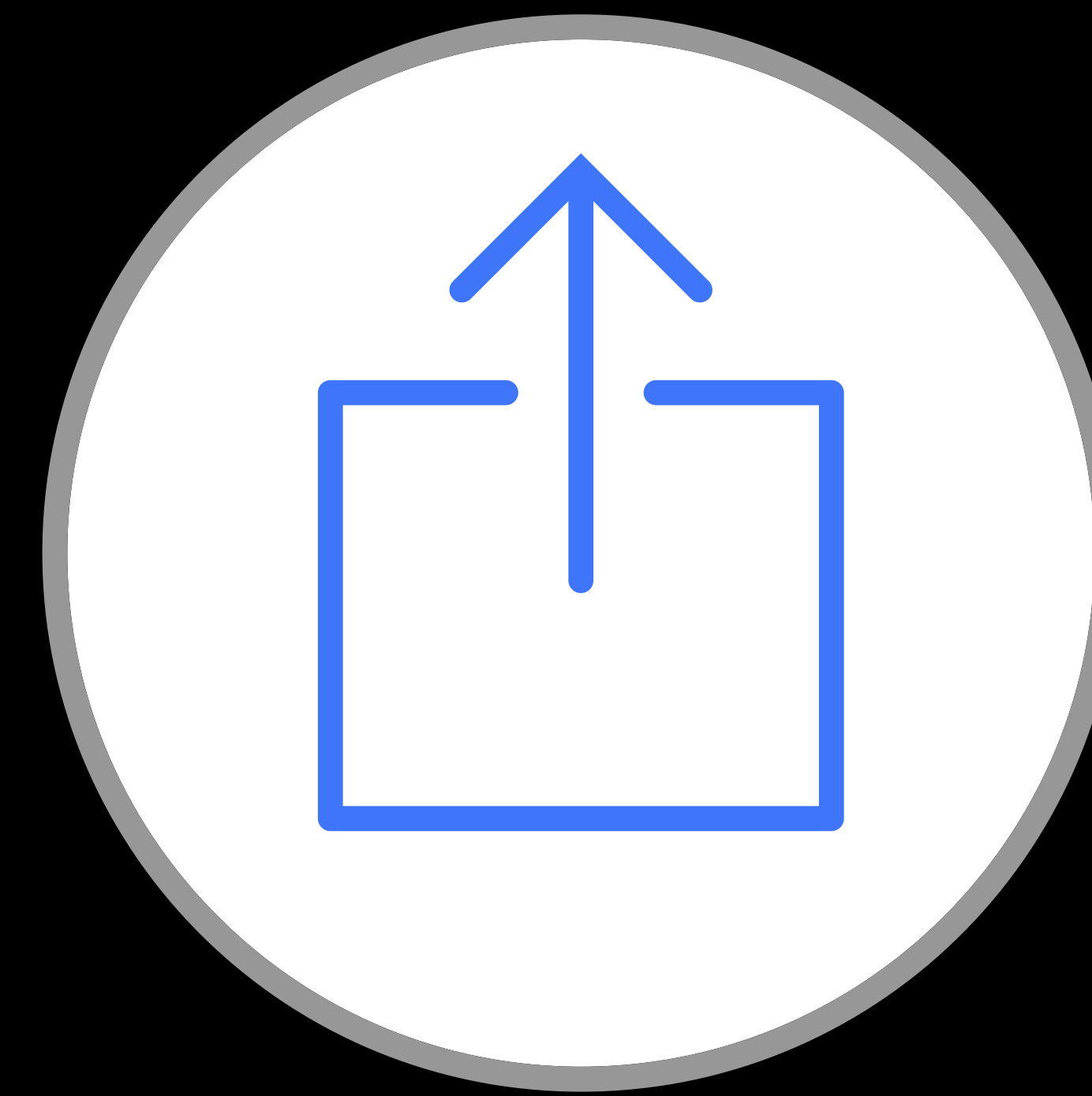
Share Extensions



Legacy Safari
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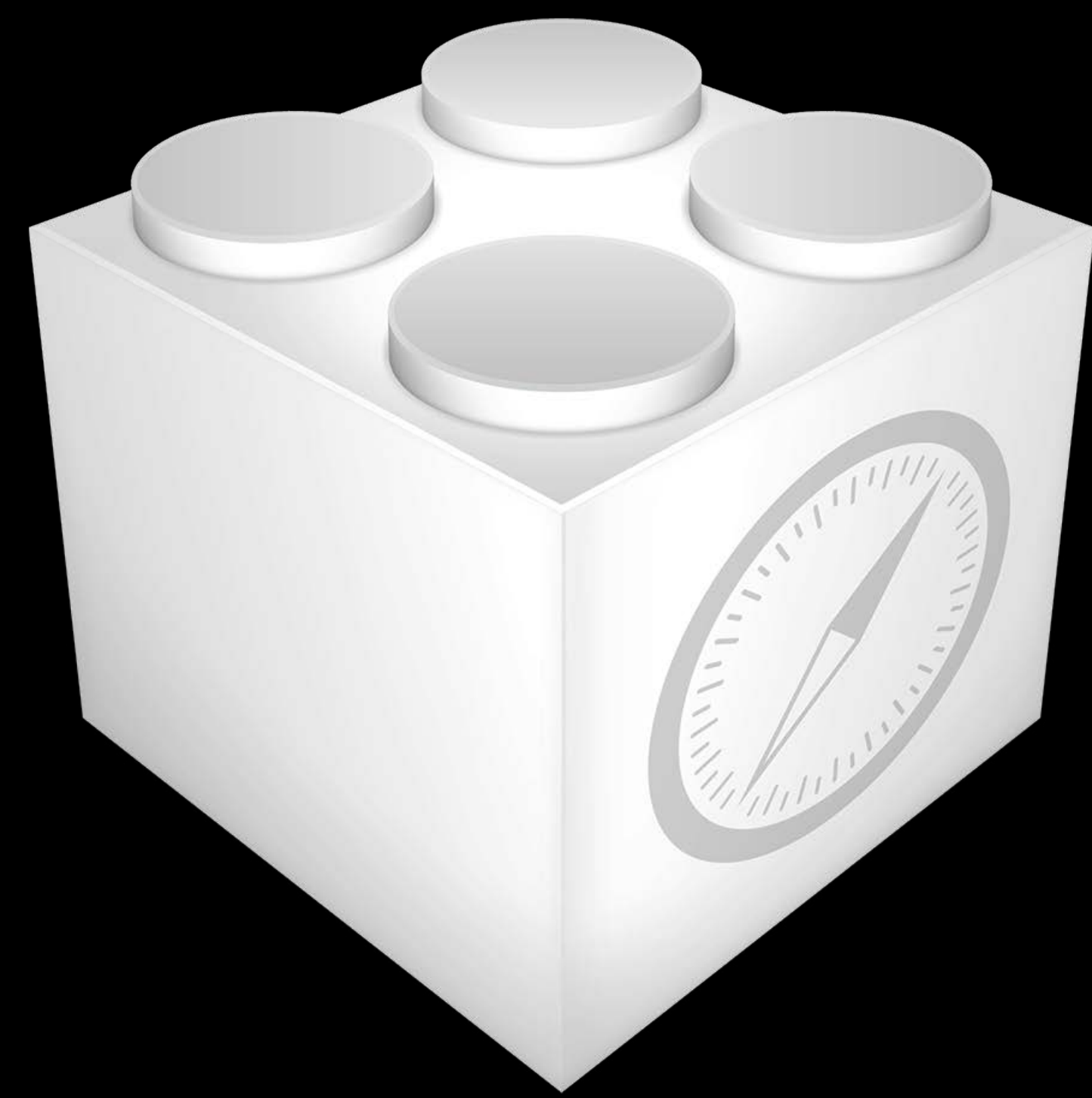
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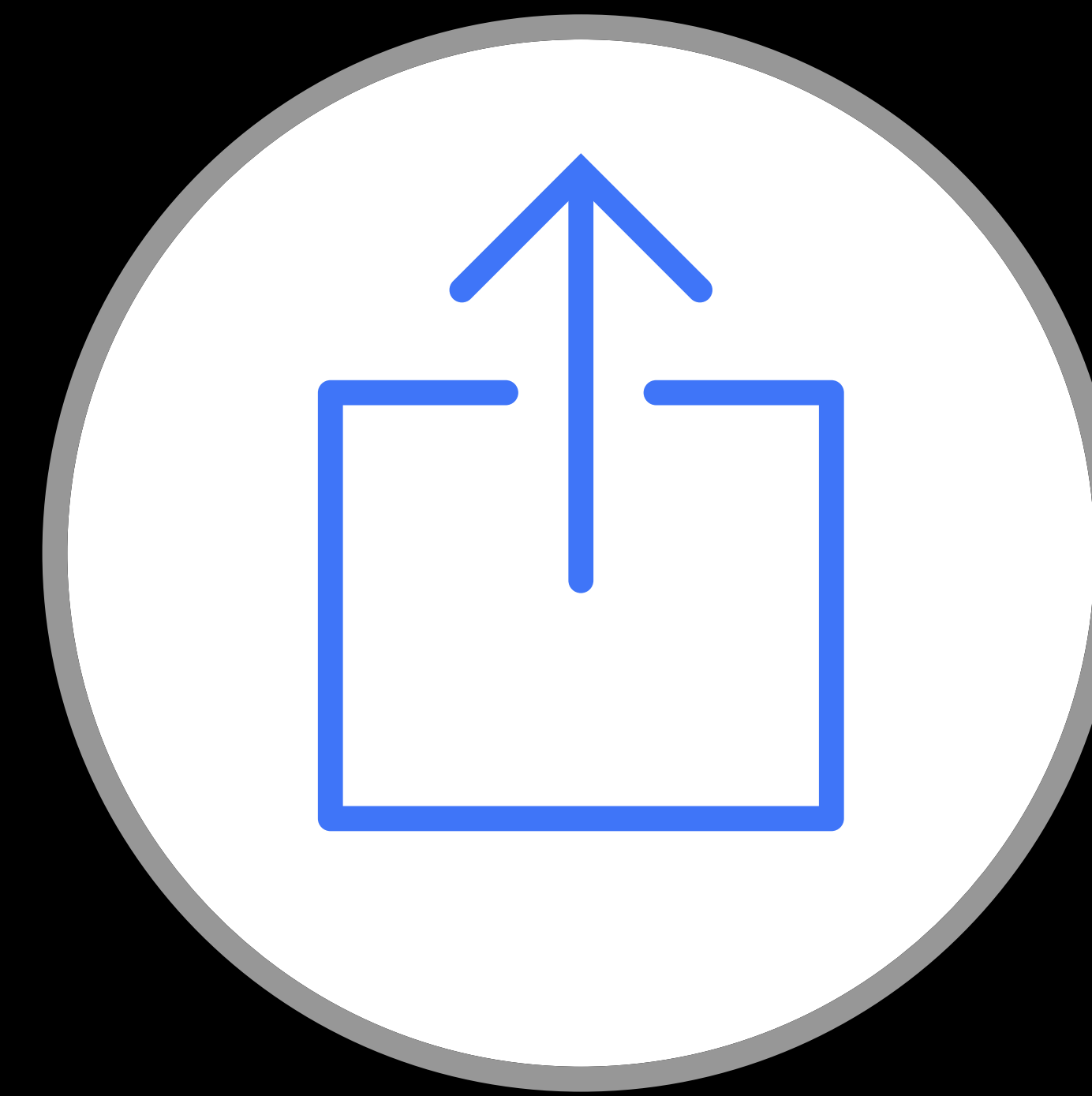
Safari App
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Legacy Safari
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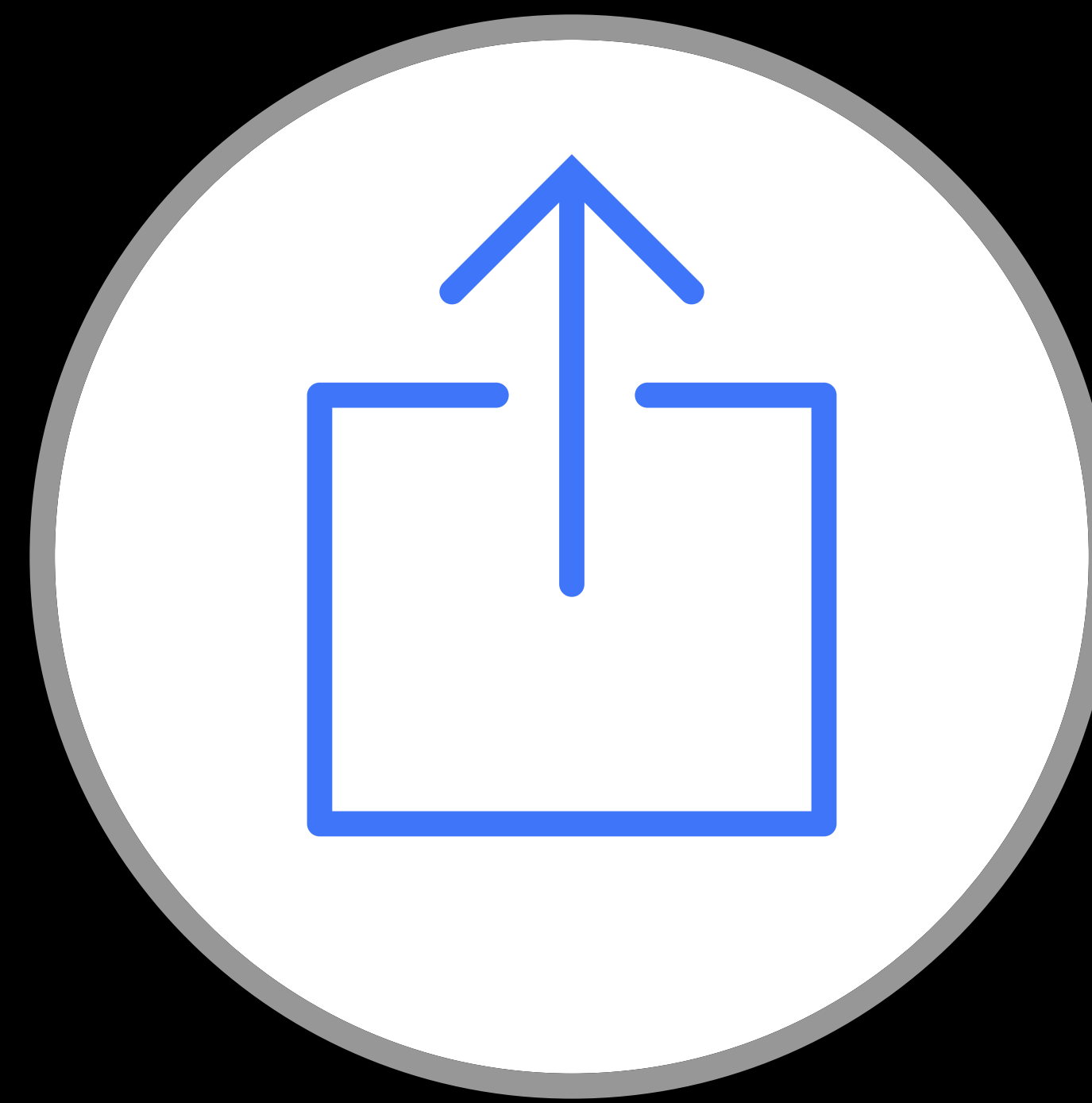
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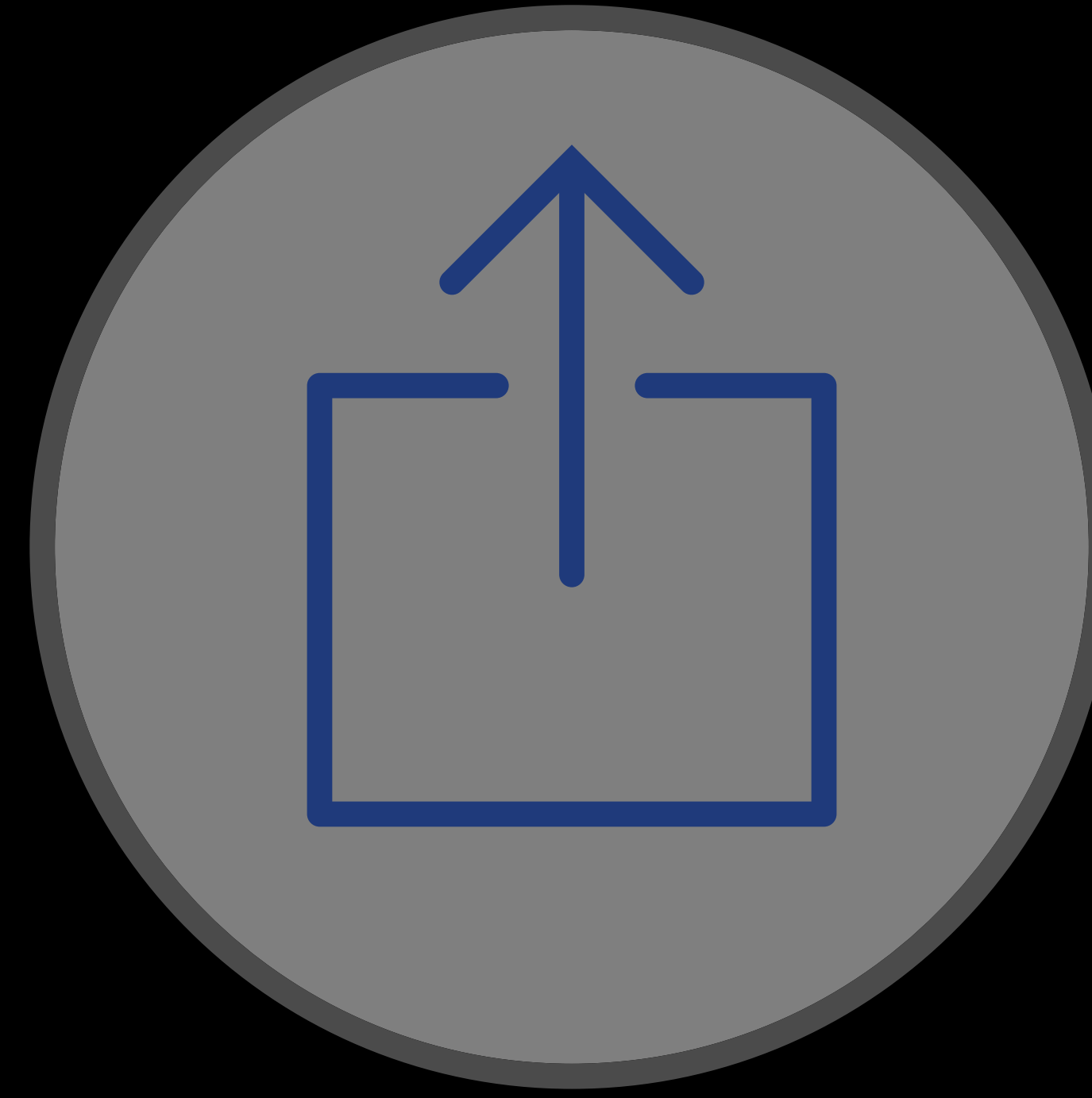
Share Extensions



Safari App
Extensions



Content Blockers



Share Extensions




















Safari App
Extensions

Choose a template for your new target:

iOS watchOS tvOS **macOS** Cross-platform Filter

Application Extension

 Action Extension	 Audio Unit Extension	 Authentication Services	 Content Blocker Extension	 Finder Sync Extension
 Network Extension	 Notification Service Extension	 Photo Editing Extension	 Photo Project Extension	 Quick Look Preview Extension
 Safari Extension	 Share Extension	 Smart Card Token Extension	 Spotlight Index Extension	 Thumbnail Extension
 17	 Hammer			

Cancel

Previous

Next







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.



Todoist: Organize your life
Assign errands & achiev...

GET In-App Purchases



1Password 7 - Password Manager
Generate & keep passw...

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



Inboard - Image Organizer
Graphics & Design

\$19.99



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 b...

\$2.99



Adblock for Safari
Productivity

GET In-App



Raindrop.io for Safari
All in One Bookmark Manager

GET In-App

New Safari App Extension APIs

Windows and Tabs

Opening full page web content



NEW

Navigate directly from the app extension process

Access to the baseURI in the app extension process

```
// Available in Safari 12.1
SFSafariExtension.getBaseURI { baseURI in
    guard let baseURI = baseURI else { return }
    tab.navigate(to: baseURI.appendingPathComponent("full_page_content.html"))
}
```

Windows and Tabs

Accessing all windows and tabs



NEW

Iterate through all open windows and tabs

```
// 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

NEW

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 /* ... */ })
}
```

Screenshots



NEW

Get the visible contents of a page

```
// Available in Safari 12.1
page.getScreenshotOfVisibleArea { image in
    // Image is the visible contents of the page.
}
```


Popovers

NEW

Programmatically show and dismiss

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

// From within SFSafariExtensionViewController
self.dismissPopover();
```

Page Navigation Notifications



NEW

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



NEW

Safari App Extension Info.plist

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

Content Blocking Notifications

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

Called when a resource is blocked

```
func contentBlocker(withIdentifier contentBlockerIdentifier: String,
  blockedResourcesWithURLs urls: [URL], on page: SFSafariPage) {
  // Handle the content blocker notification.
}
```



Extending your App with Safari App Extensions

WWDC 2016

What's New in Safari Extensions

WWDC 2019



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Links like this

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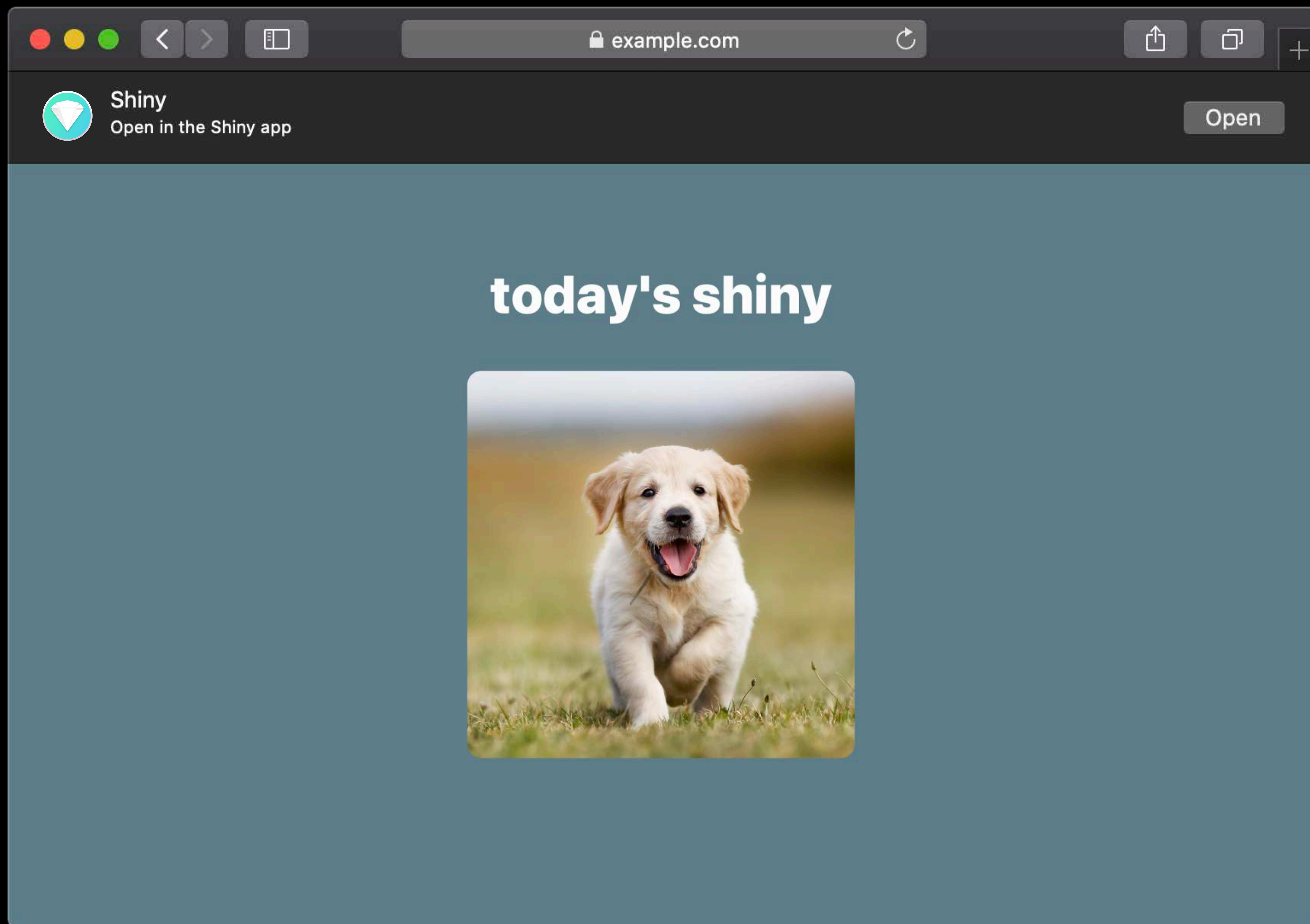
iPad Apps for Mac

SFSafariViewController

Custom in-app web browsers

NEW

Universal Links on macOS



Universal Links on macOS

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More Information

developer.apple.com/wwdc19/515

Safari, WebKit, and Authentication Services Lab

Thursday, 12:00

Introducing Desktop-class Browsing on iPad

WWDC 2019

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