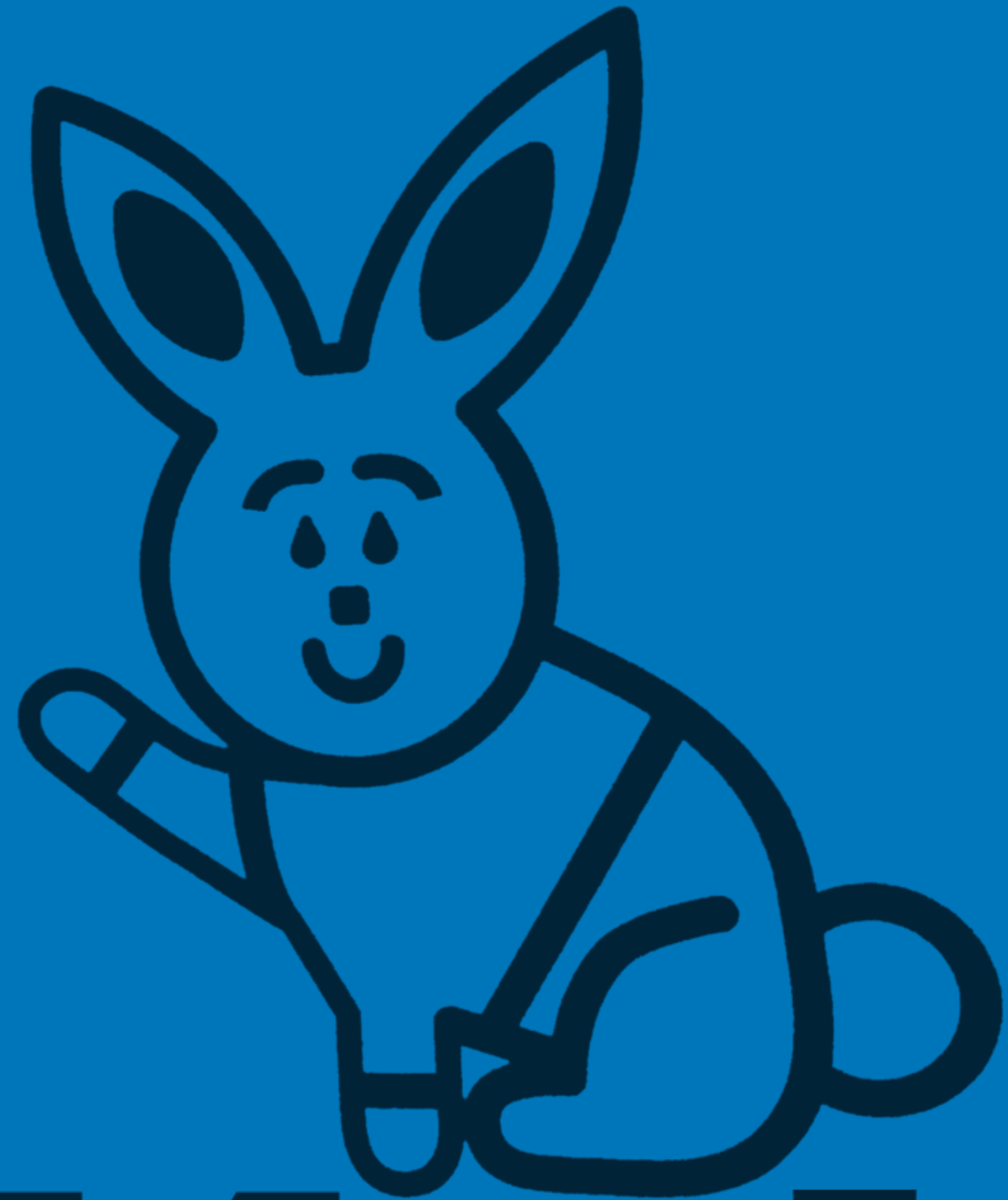


Bye

Bye

Rosetta!



Rosetta's Retirement Party

How to Prepare

Adam Selby

Rosetta's Retirement Party

How to Prepare

Adam Selby



TRANSLATION TECHNOLOGIES

Rosetta 2

arm64

Macs with Apple silicon

x86_64

Intel-based Macs

What Apple has said about Rosetta

Rosetta is a translation process that allows users to run Mac apps that contain x86_64 instructions on Apple silicon.

Rosetta was designed to ease the transition for Mac apps to Apple silicon, giving you time to transition your app to a native Apple silicon binary.

**To someone using a Mac, Rosetta is
mostly transparent.**

The system prevents you from mixing arm64 code and x86_64 code in the same process.

If a macOS binary contains only Intel instructions, macOS automatically launches Rosetta and begins the translation process.

When translation finishes, the system launches the translated executable in place of the original.

The system prefers to execute a Mac app's arm64 instructions on Apple silicon.

**Rosetta translation applies to an entire process,
including all code modules that the process loads
dynamically.**

macOS Tahoe will be the last release for Intel-based Mac computers. Those systems will continue to receive security updates for 3 years.

Rosetta was designed to make the transition to Apple silicon easier, and we plan to make it available for the next two major macOS releases – through macOS 27 – as a general-purpose tool for Intel apps to help developers complete the migration of their apps.

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[“About the Rosetta translation environment” from Apple Developer](#)

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macOS 26 is the last macOS release with full support for Intel-based Mac computers. All Mac computers with macOS 26.4 or later display a pop-up notification to transparently inform users about the deprecation when an application using Rosetta launches.

Apple Platform Deployment (WWDC26)

macOS 26 is the last macOS release with full support for Intel-based Mac computers. All Mac computers with macOS 26.4 or later display a pop-up notification to transparently inform users about the deprecation when an application using Rosetta launches.

Apple Platform Deployment (WWDC26)

This proactive communication helps IT teams and users plan for app compatibility and transitions well in advance. IT teams can use the `allowRosettaUsageAwareness` restriction to suppress this notification on devices enrolled using Automated Device Enrollment, account-driven Device Enrollment, and profile-based Device Enrollment.

This proactive communication helps IT teams and users plan for app compatibility and transitions well in advance. IT teams can use the `allowRosettaUsageAwareness` restriction to suppress this notification on devices enrolled using Automated Device Enrollment, account-driven Device Enrollment, and profile-based Device Enrollment.

This proactive communication helps IT teams and users plan for app compatibility and transitions well in advance. IT teams can use the **allowRosettaUsageAwareness** restriction to suppress this notification on devices enrolled using Automated Device Enrollment, account-driven Device Enrollment, and profile-based Device Enrollment.

```
<key>allowRosettaUsageAwareness</key>
```

```
<false />
```

com.apple.applicationaccess

“Rosetta Deprecations” from What’s New for IT (macOS 26.4)

As announced at WWDC in 2025, macOS Tahoe 26 is the last release to support Intel based Macs. Additionally, Rosetta support for apps will end after macOS 27. Starting in macOS Tahoe 26.4, users will be notified when they launch apps that use Rosetta of the upcoming incompatibility.

During the beta period, the cadence of notifications will be accelerated, enabling Apple and developers to address any issues that might occur.

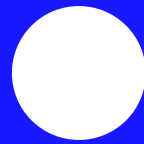
There will continue to be support for older, unmaintained gaming titles leveraging Rosetta along with software running Intel binaries in Linux VMs.

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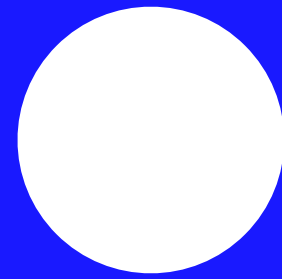
There will continue to be support for older, unmaintained gaming titles leveraging Rosetta along with software running Intel binaries in Linux VMs.

```
sudo game-test-tool enable
```

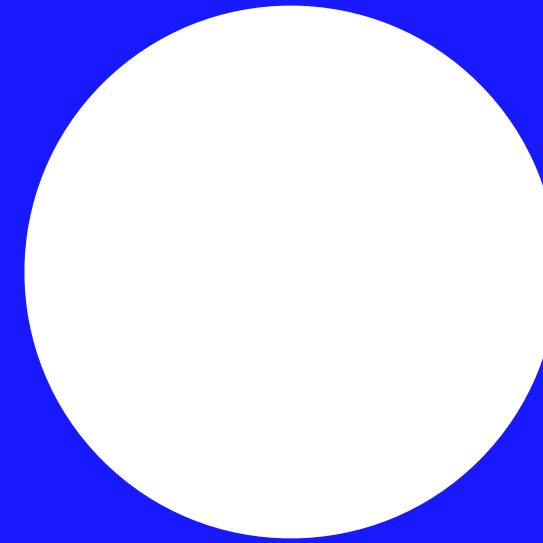

How Apple Deprecates Technology



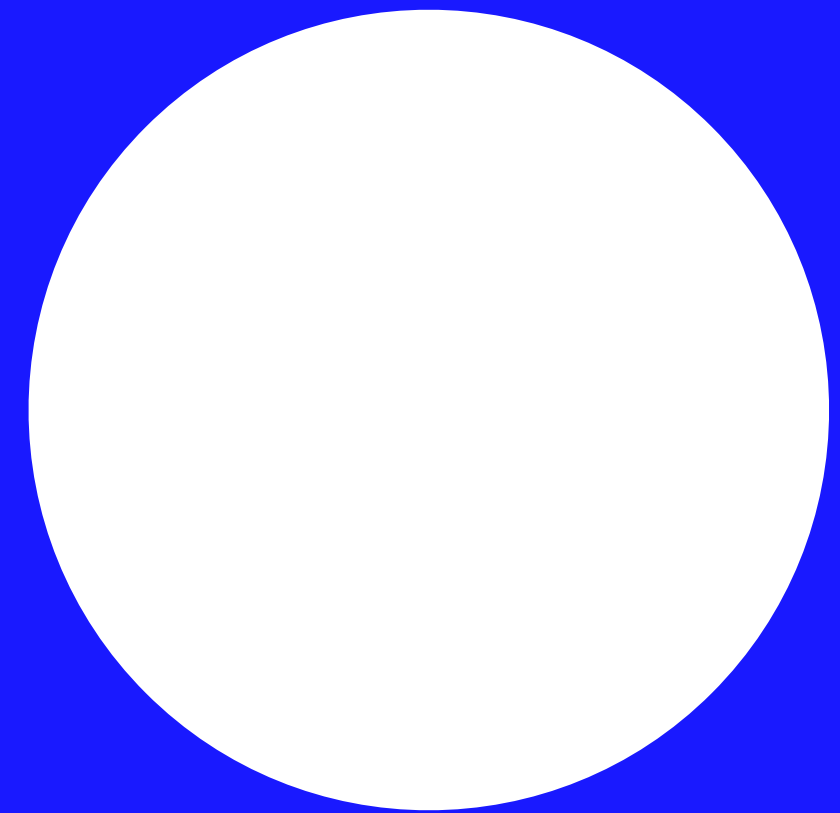
***Admin
Notice***



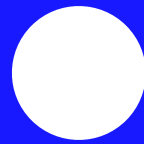
***User
Notice***



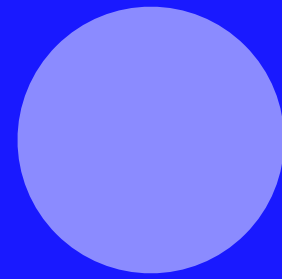
***User
Impact***



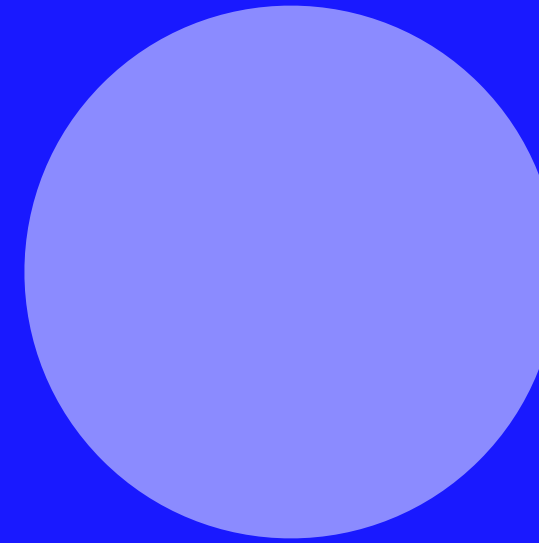
***Full
Removal***



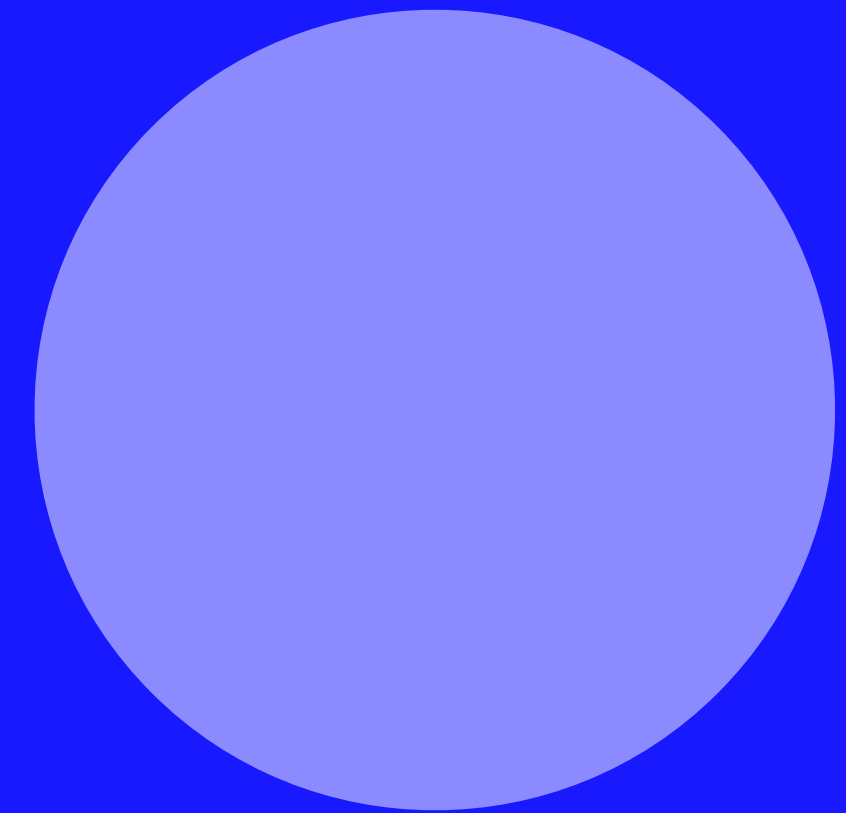
***Admin
Notice***



***User
Notice***



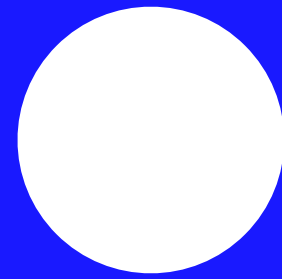
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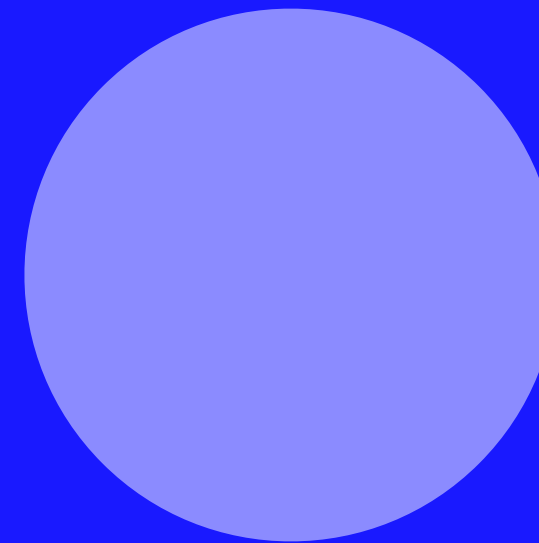
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Removal***



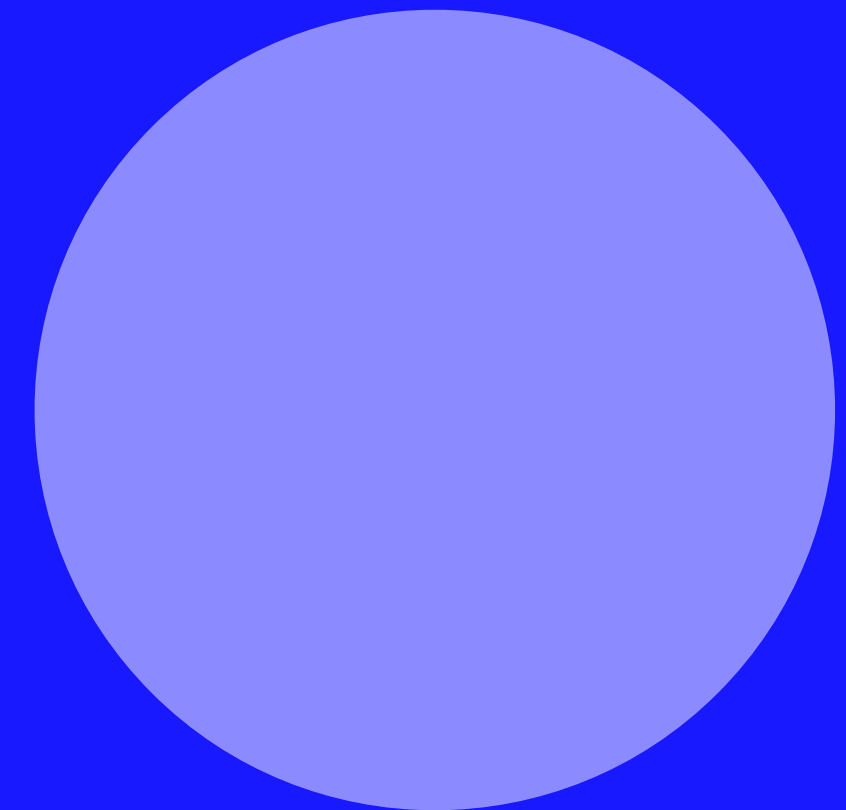
*Admin
Notice*



*User
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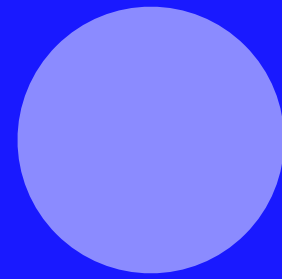
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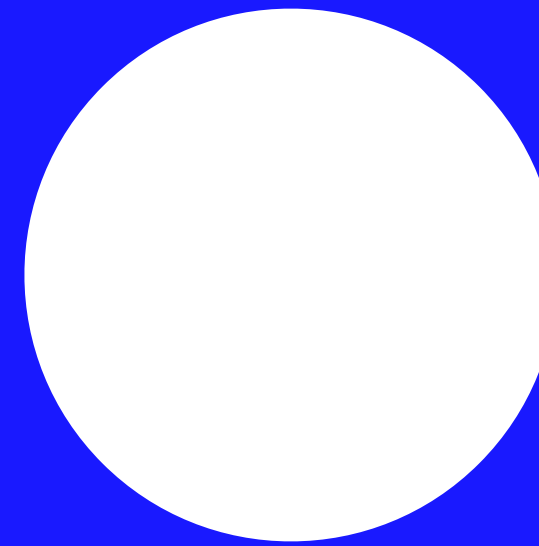
*Full
Removal*



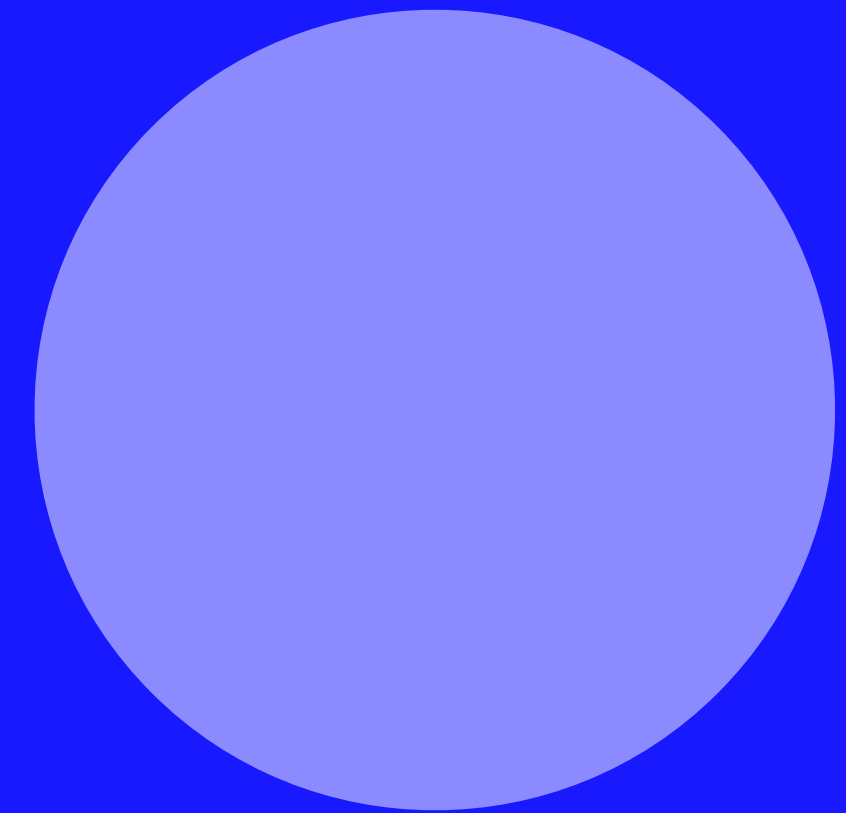
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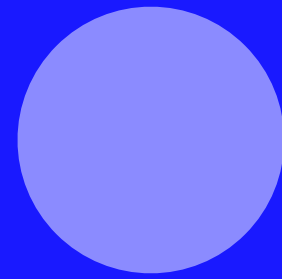
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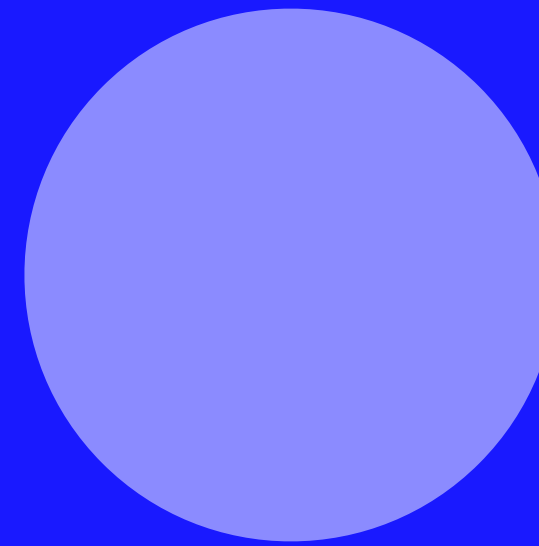
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Removal*



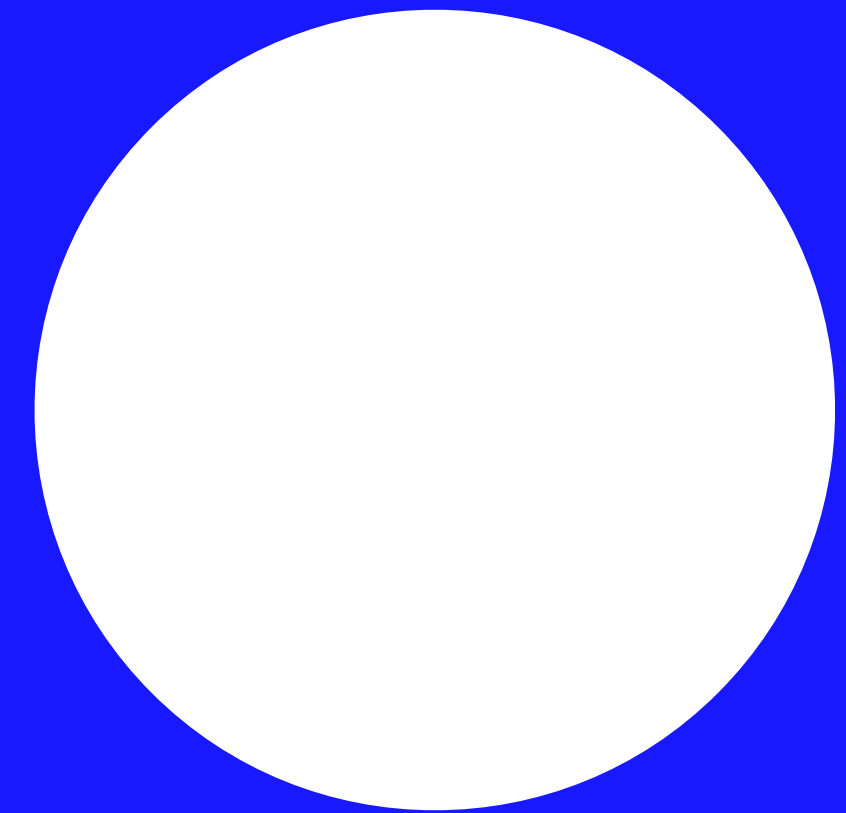
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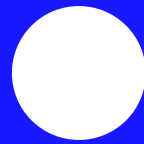
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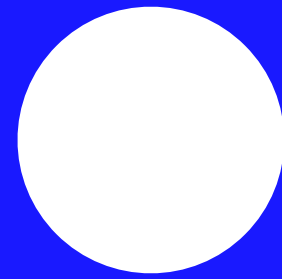
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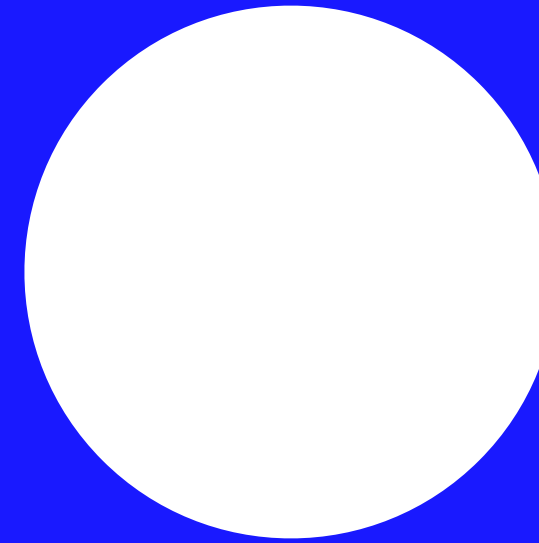
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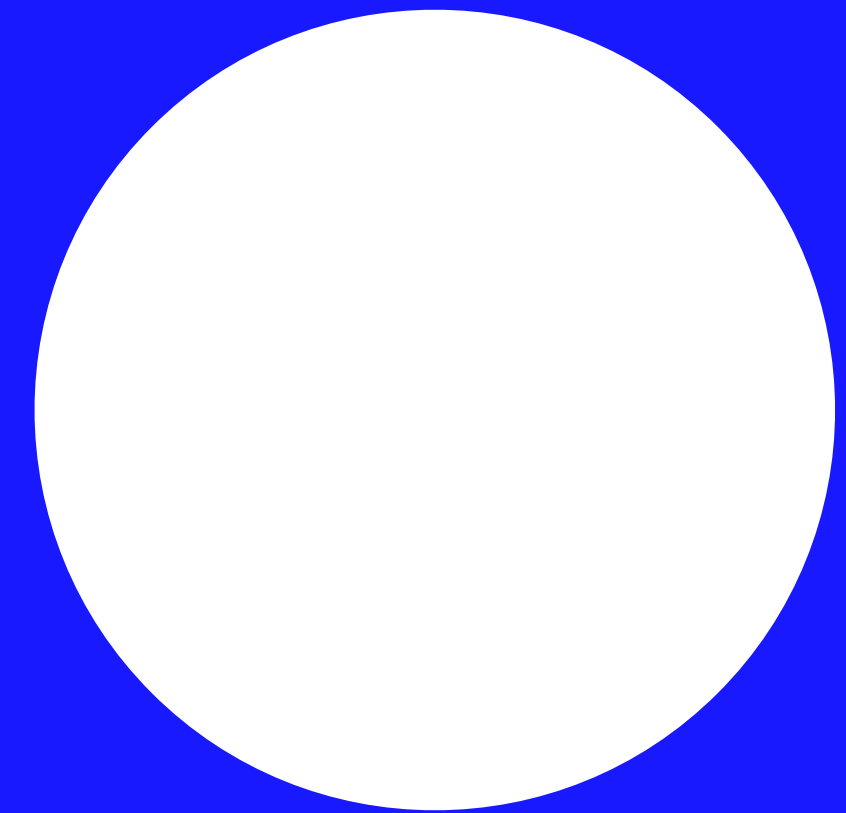
***Admin
Notice***



***User
Notice***



***User
Impact***



***Full
Removal***

32-bit Support

THE MODERN DEPRECATION TEMPLATE

App Store requirements

2015: App Store Apps must include 64-bit support

Documentation warnings

2017: macOS High Sierra is the last release to run 32-bit apps

macOS 10.13

“without compromise”

Documentation warnings

2017: macOS High Sierra is the last release to run 32-bit apps

macOS 10.13

Lightweight User Warnings

2018: macOS High Sierra warns on first run of 32-bit software

macOS 10.13.4

Lightweight User Warnings

2018: macOS High Sierra warns on first run of 32-bit software

macOS 10.13.4

Standard User Warnings

2018: macOS Mojave warns when 32-bit software is run

macOS 10.14

32-bit Support Removed

2019: macOS Catalina drops support for any 32-bit software

macOS 10.15

Mid-Cycle Updates

10.13.4

MACOS HIGH SIERRA WARNS ON FIRST RUN OF 32-BIT SOFTWARE

**Notifications increase
in frequency over time.**

Usage Awareness

32-bit Usage Awareness

Usage Awareness

Rosetta Usage Awareness

**It does not scan
network or remote volumes.**

**Usage matters, and location
matters.**

```
sudo nvram boot-args='nox86exec=1'
```

When set, Rosetta will immediately crash and generate a report.

How to find Intel apps

system_profiler

```
/usr/sbin/system_profiler -json
```

```
SPLegacySoftwareDataType
```

system_profiler

```
{
  "SPLegacySoftwareDataType" : [
    {
      "_name" : "Scala Preview",
      "has_native_version" : "has_native_version_no",
      "number_of_times_launched" : 3,
      "previously_launched_date" : "2026-04-05T09:41:00Z",
      "process_info" : {
        "process_bundle_id" : "com.bjango.skalapreview",
        "process_bundle_version" : "30",
        "process_name" : "Scala Preview",
        "process_path" : "/Applications/Scala Preview.app/Contents/MacOS/Scala Preview",
        "process_team_id" : "Y93TK974AT"
      },
      "reason" : "reason_x86_only"
    }
  ]
}
```



```
{
  "SPLegacySoftwareDataType" : [
    {
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      },
      "reason" : "reason_x86_only"
    }
  ]
}
```

mdls


```
mdls -name kMDItemExecutableArchitectures  
'/Applications/Workbrew.app'
```

```
kMDItemExecutableArchitectures = (  
    arm64  
)
```

```
mdfind 'kMDItemExecutableArchitectures == "x86_64" &&  
kMDItemExecutableArchitectures != "arm64" &&  
kMDItemContentType == "com.apple.application-bundle"'
```

Find via Spotlight

lipo

lipo -archs

```
lipo -archs “/Applications/  
Workbrew.app/Contents/MacOS/Workbrew”
```


arm64

x86_64

x86_64 arm64

x86_64 arm64e

osquery

```
SELECT pid, name, path FROM  
processes WHERE translated = 1;
```

Lookup via osquery

brew


```
brew info --installed --cask --json=v2 | jq  
  '[.casks[] | select(.caveats_rosetta).full_token]'
```

brew info

sysctlbyname


```
int processIsTranslated() {  
    int ret = 0;  
    size_t size = sizeof(ret);  
    if (sysctlbyname("sysctl.proc_translated", &ret, &size, NULL, 0) == -1)  
    {  
        if (errno == ENOENT)  
            return 0;  
        return -1;  
    }  
    return ret;  
}  
}
```

sysctlbyname sysctl.proc_translated

Intel-only frameworks or libraries can be present in a bundle, but may never be loaded.

Their presence does not indicate an issue by itself — Only when loaded.

<https://developer.apple.com/documentation/apple-silicon/about-the-rosetta-translation-environment>

Open cases and point them to this URL.

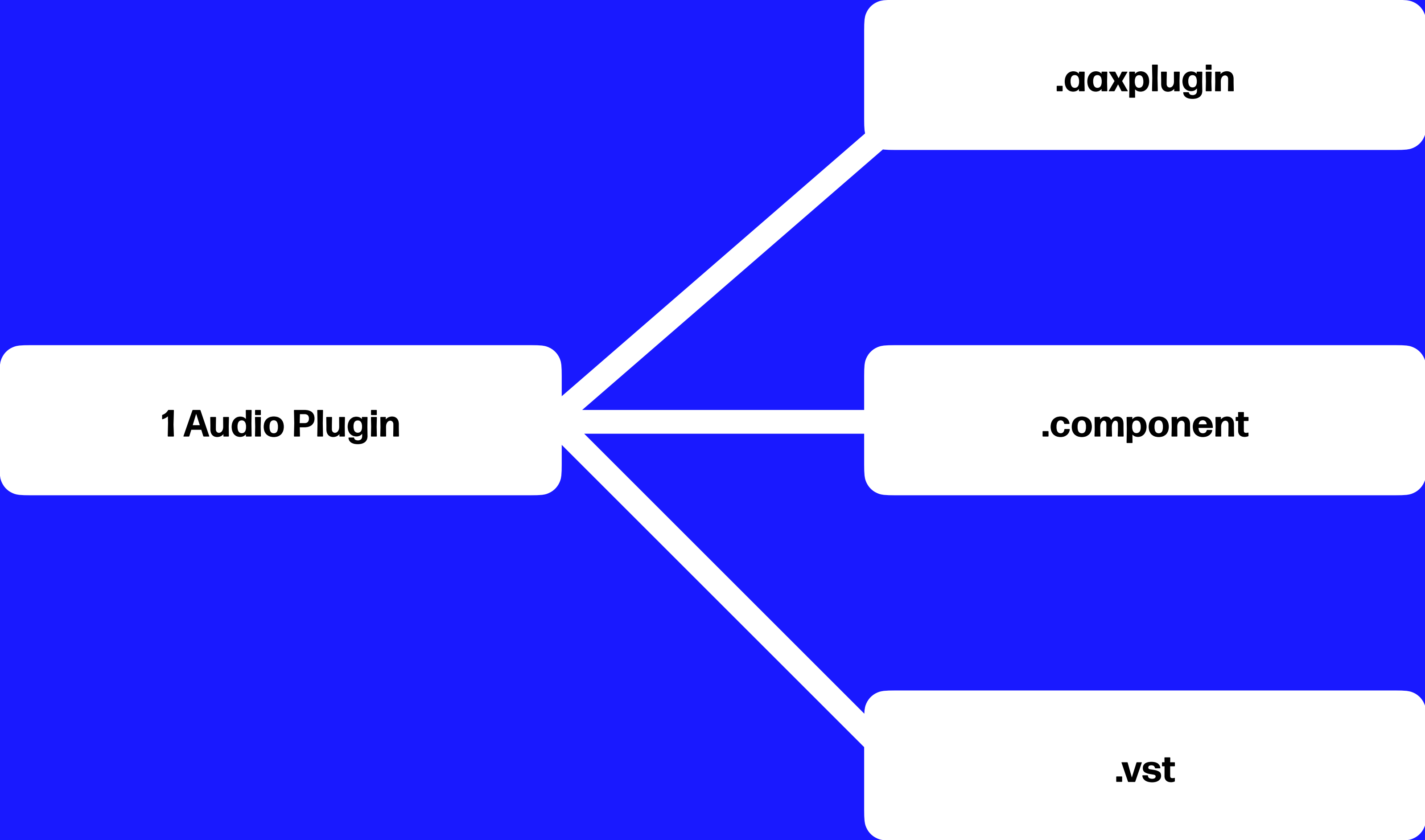
What to check for

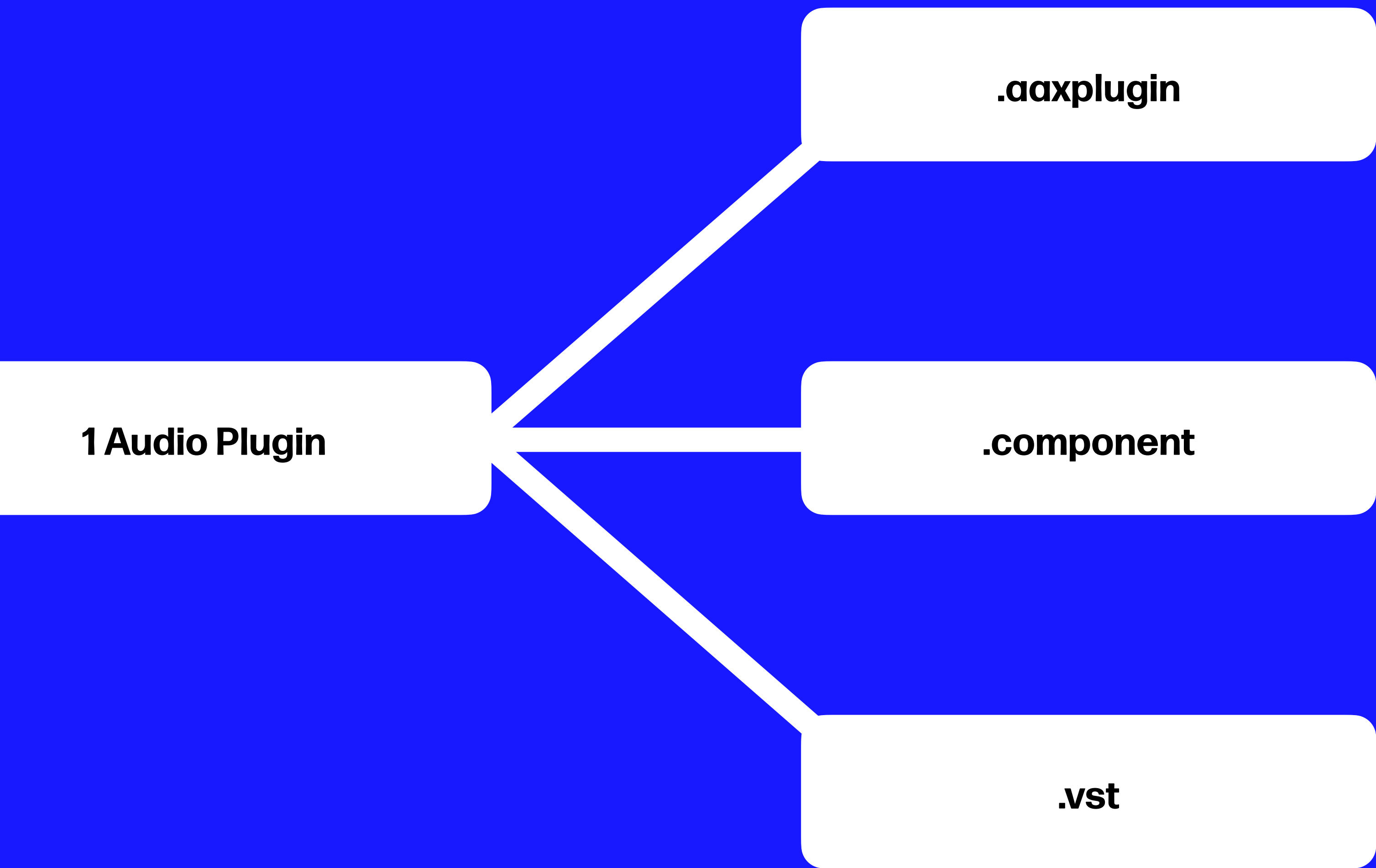
Plugins

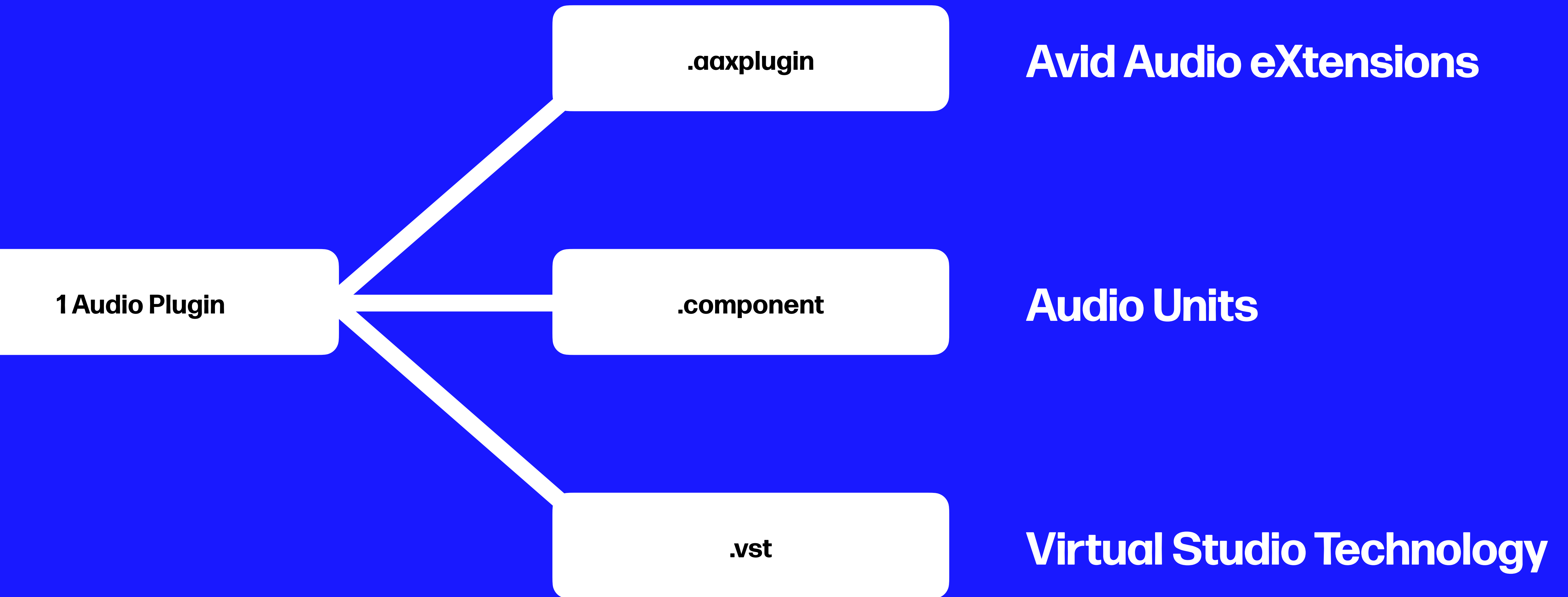
Pro Workflows

1 Audio Plugin

1 Audio Plugin







Plugins

3D Plugins

Modules and plugins for Maya, Houdini, and Cinema 4D

Audio Plugins

Audio Units, VST & AAX files, HAL & MIDI drivers

Photo Plugins

Adobe's .plugin formats, Sketch plugins, Photos.app extensions

Video Plugins

FxPlugin, OFX, Motion Templates, Adobe .bundle & .plugin

Virtual Devices

Virtual Audio Devices, Virtual Cameras

Extensions

.mdimporter

.qlgenerator

.prefPane

.colorpicker

.saver

.service

.plugin

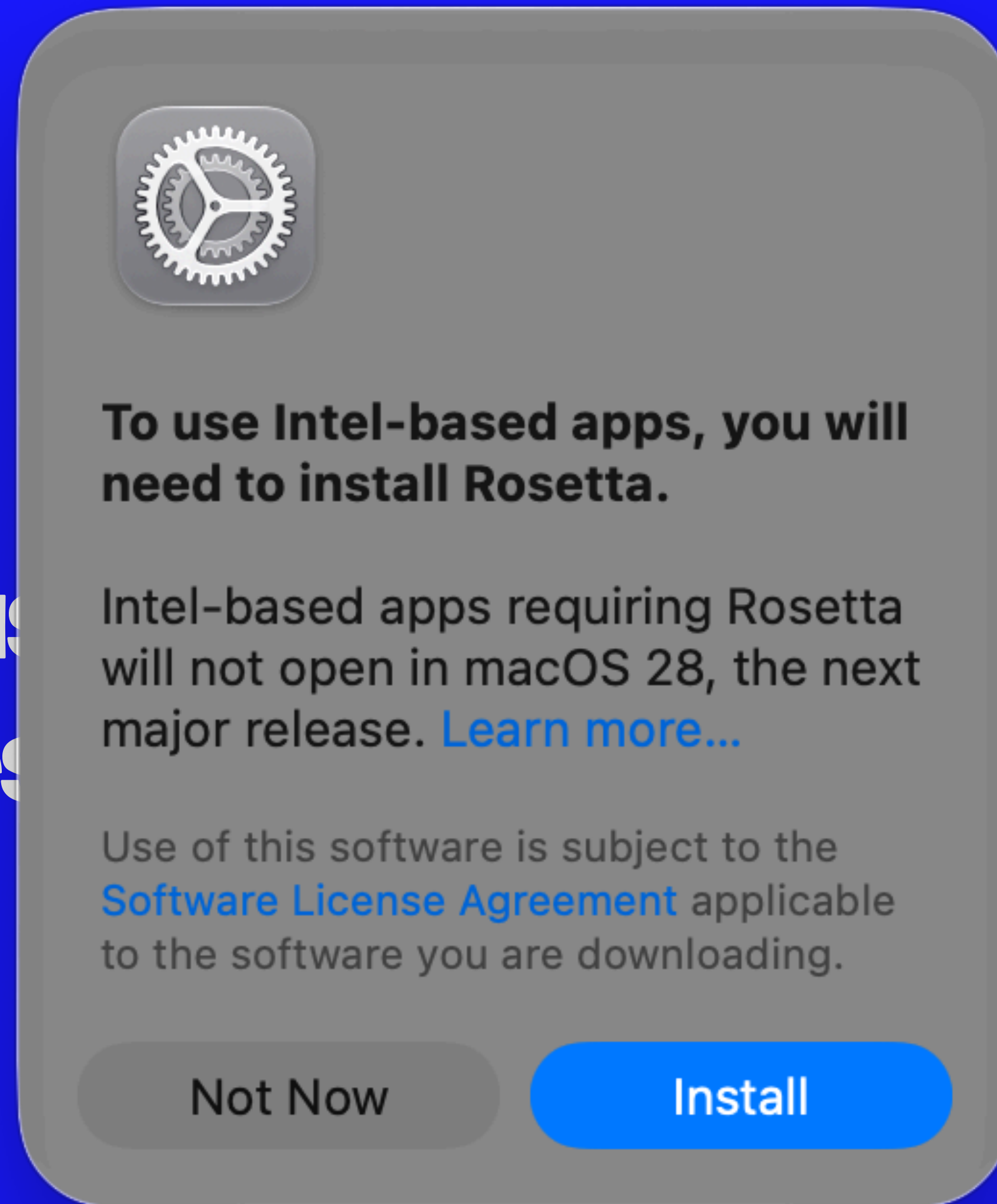
.mailbundle

What to know

Remember: Rosetta has never been part of any macOS default install.

If Rosetta was previously installed, it will not be automatically restored upon upgrading to macOS 27.

If Rosetta was
automatically res



d, it will not be
ing to macOS 27.

If Rosetta was previously installed, it will not be automatically restored upon upgrading to macOS 27.

**Installer packages which specify no
hostArchitecture will now default to arm64.**

**Ensure any pre and post install scripts
behave as intended under arm64.**

Audit any remaining installer plugins to ensure compatibility on Apple silicon.

In macOS 27, the installer package can be manually relaunched under Rosetta for compatibility testing.


```
arch -x86_64 /usr/sbin/installer  
-pkg <input.pkg> -target /
```


What it looks like

Sim Daltonism





Sim Daltonism Info



Sim Daltonism

Modified: June 17, 2020 at 2:34 PM

13 MB

Add Tags...

General:

Kind: Application (Intel)



Intel-based apps requiring Rosetta will not open in macOS 28, the next major release. Check with the developer for an Apple silicon version. [Learn more...](#)

Size: 12,991,338 bytes (13.1 MB on disk)

Where: Macintosh HD ▸ Applications

Created: June 17, 2020 at 2:34 PM

Modified: June 17, 2020 at 2:34 PM

Version: 2.0.5

Copyright: © 2005–2020 Michel Fortin

☐

Locked

More Info:

Name & Extension:

Comments:

Preview:



Sharing & Permissions:



Sim Daltonism

13 MB

Modified: June 17, 2020 at 2:34 PM

Add Tags...

▼ General:

Kind: Application (Intel)



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Search

Sign in

Apple Account

Wi-Fi

Bluetooth

Network

VPN

Energy

General

Accessibility

Appearance

Desktop & Dock

Displays

Menu Bar

Siri

Spotlight

Wallpaper

< | >

About

Apple Virtual Machine 1

Name

Apple Virtual Machine 1

Chip

Apple M5 Pro (Virtual)

Memory

12 GB

Serial number

ZLF3H7053T

macOS

27

macOS Golden Gate

Version 27.0 Beta (26A5368g)

Intel-based Apps

Support ending for Intel-based apps in macOS 28.

Details...

Displays

 Energy

 **General**

 Accessibility

 Appearance

 Desktop & Dock

 Displays

 Menu Bar

 Siri

 Spotlight

 Wallpaper

Chip Apple M5 Pro (Virtual)

Memory 12 GB

Serial number ZLF3H7053T

macOS

 macOS Golden Gate Version 27.0 Beta (26A5368g)

Intel-based Apps

Support ending for Intel-based apps in macOS 28.

[Details...](#)

Displays

About

Search

Sign in with Apple ID (6A5368g)

Wi-Fi

Bluetooth

Network

VPN

Energy

General

Accessibility

Appearance

Desktop

Displays

Menu Bar

Siri

Spotlight

Wallpaper

Support Ending for Intel-based Apps

Intel-based apps running on Rosetta will not open in macOS 28. The following apps need to be updated for Apple silicon. An update may be available on the developer's website. [Learn more...](#)

Opened within the last year

Sim Daltonism

Last opened today

Done



Support Ending for Intel-based Apps

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Opened within the last year



Sim Daltonism

Last opened today

Sim Daltonism



What to do next

File Feedback

Push Updates

macOS 27 Golden Gate

```
open "x-apple.systempreferences:  
com.apple.SystemProfiler.AboutExtension?  
showIncompatibleApps"
```

macOS 27 Golden Gate

**An Intel app set to launch at login will
not launch until Rosetta is installed.**

If you checked "Open in Rosetta" in Get Info in the past, it will be unchecked.

If a developer set "Open in Rosetta" via a key in the past, it will be unset.

macOS 28 will not run Intel apps

**Security-only support will continue
for macOS Tahoe 26**

