

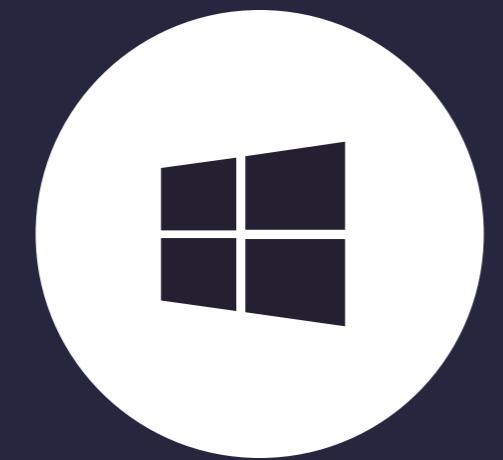
There is no “Linux” Platform

Tobias Bernard
Design Team

Jordan Petridis
Release Team

Linux App Summit

“designed to accelerate the growth of
the Linux application ecosystem”



Windows



macOS



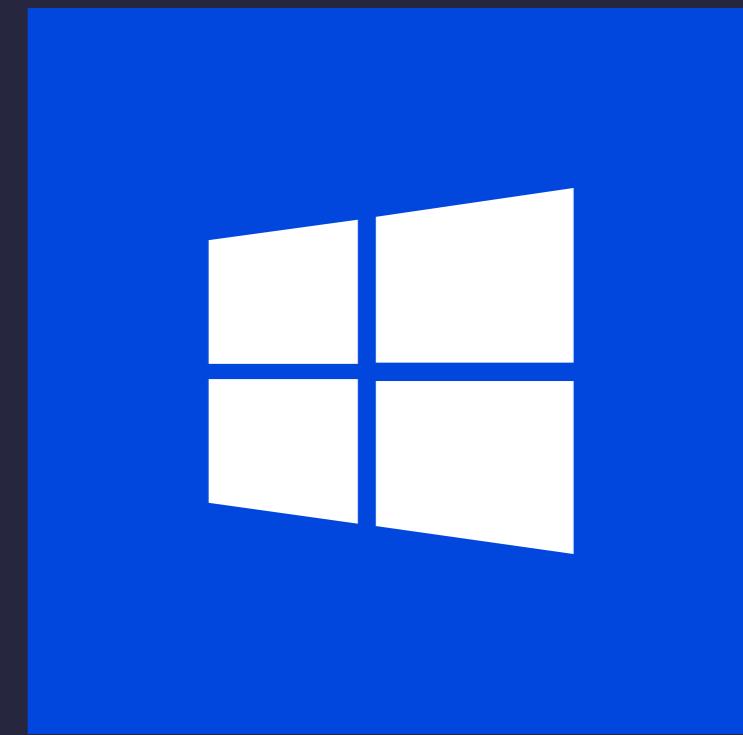
“Linux”



Platform

Chapter I

What is a Platform?

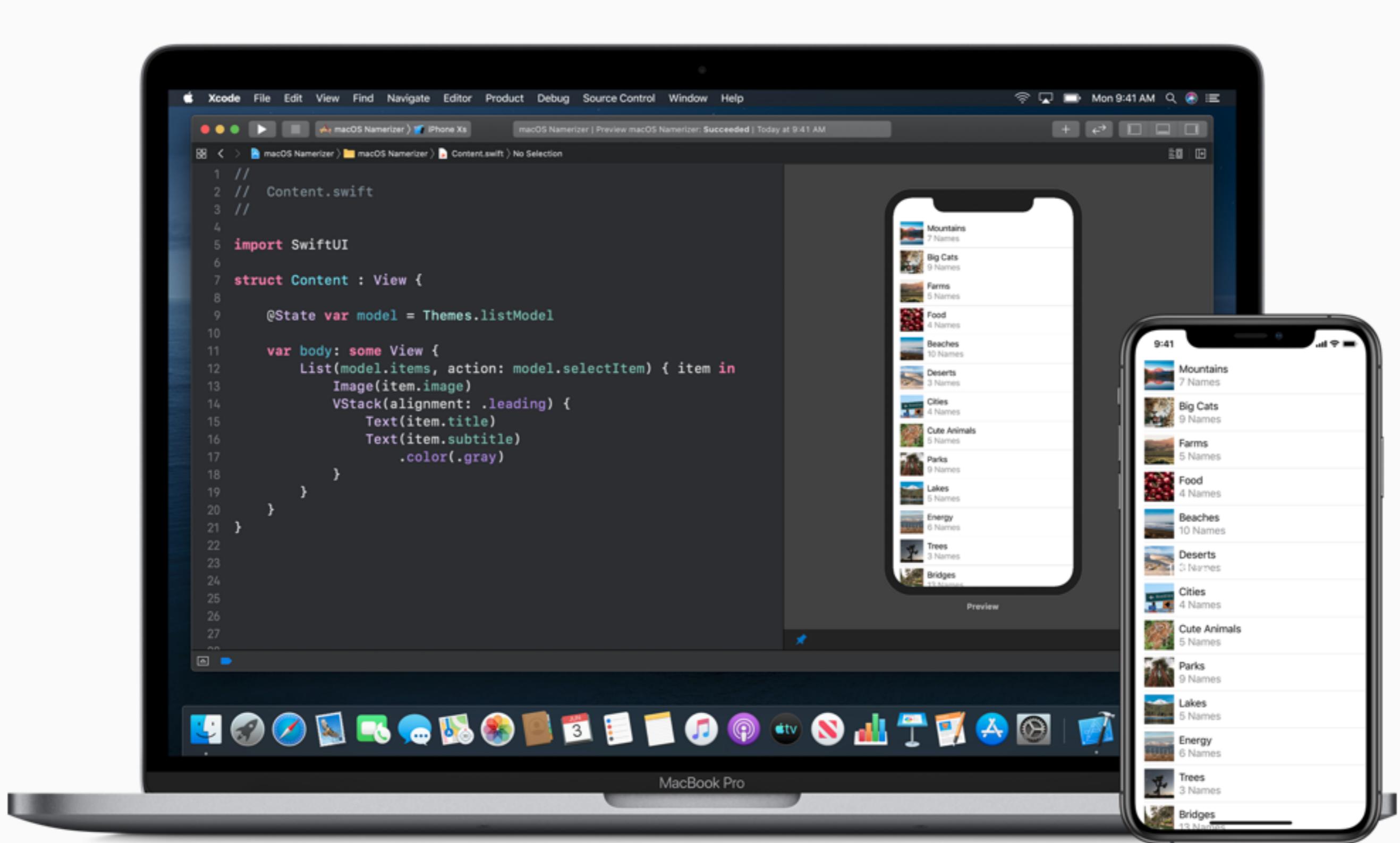


Developers

Designers

End Users

Developers



AndroidStudioProject > Application > src > main > res

image_grid.xml x AndroidManifest.xml x

Preview Pixel 27 AppTheme 50% 8:00

Application manifests Java res drawable layout menu main_menu.xml values Gradle Scripts

```
<?xml version="1.0" encoding="utf-8"?>
<android.support.constraint.ConstraintLayout
    xmlns:android="http://schemas.android.com/apk/res/android"
    xmlns:app="http://schemas.android.com/apk/res-auto"
    xmlns:tools="http://schemas.android.com/tools"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    tools:layout_editor_absoluteY="81dp"
    tools:layout_editor_absoluteX="0dp">

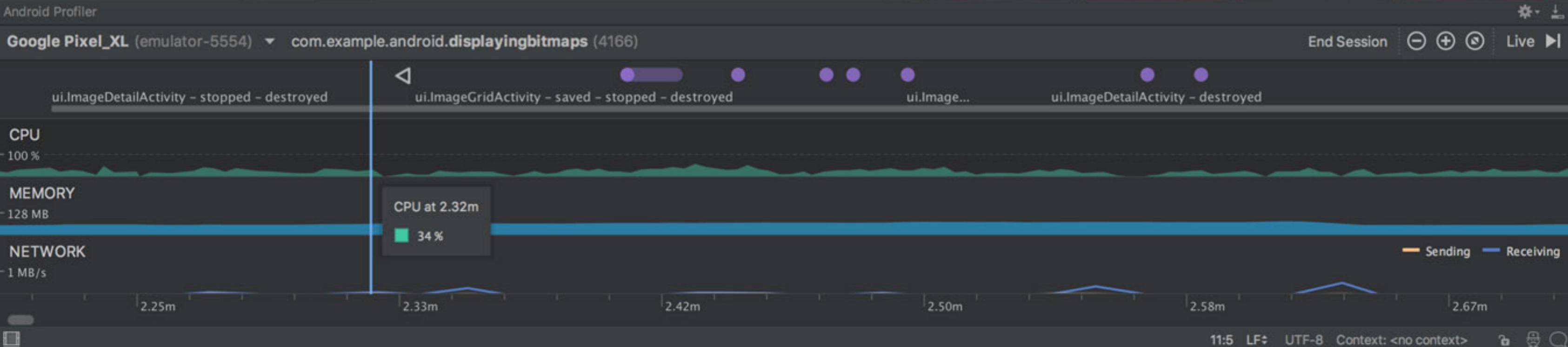
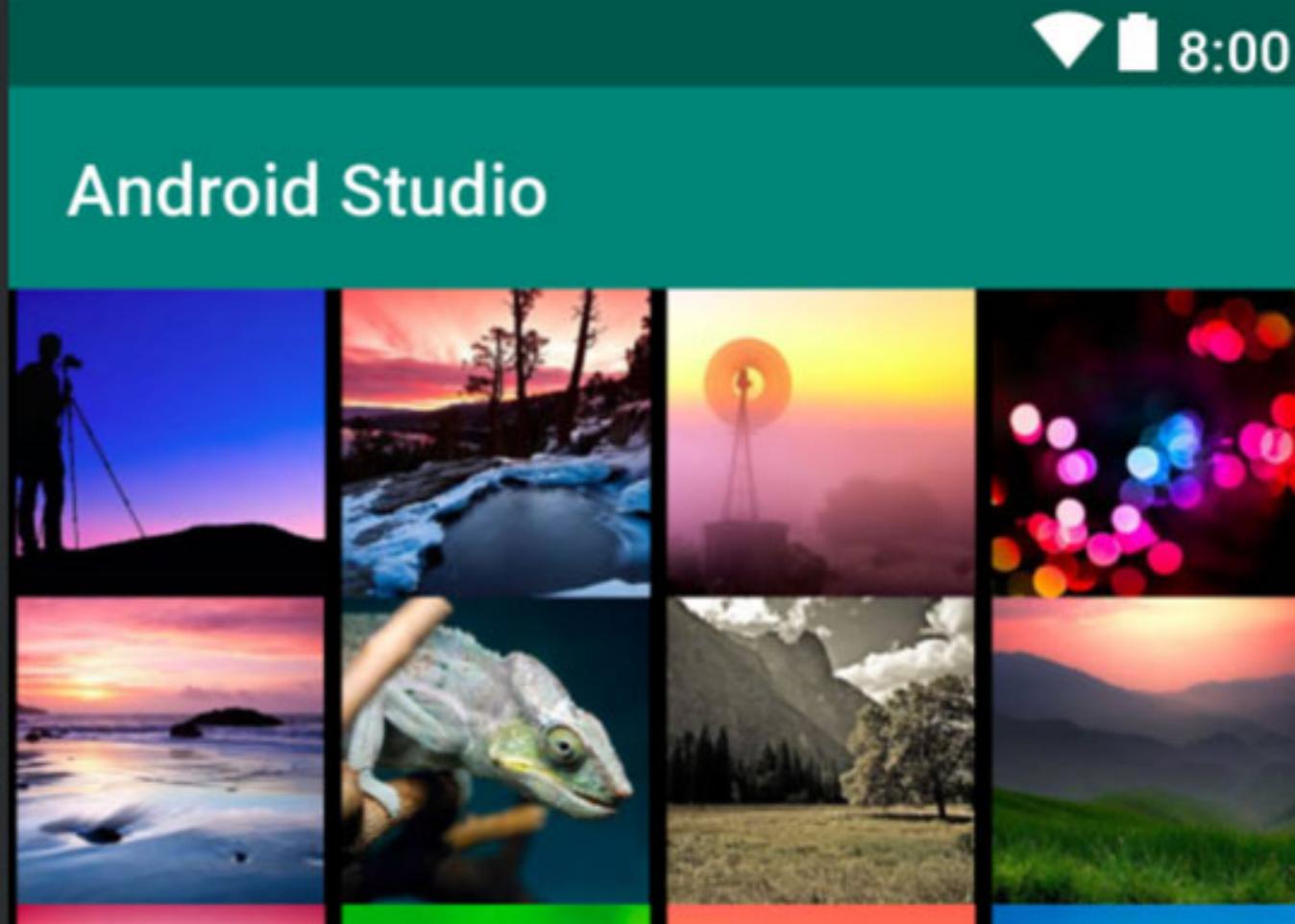
    <ImageView
        android:id="@+id/imageView2"
        android:layout_width="0dp"
        android:layout_height="0dp"
        android:contentDescription="@string/app_name"
        app:layout_constraintBottom_toTopOf="@+id/imageView6"
        app:layout_constraintEnd_toStartOf="@+id/imageView3"
        app:layout_constraintHorizontal_bias="0.5"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toTopOf="parent"
        app:srcCompat="@drawable/grid_1" />

    <ImageView
        android:id="@+id/imageView3"
        android:layout_width="0dp"
        android:layout_height="0dp"
        android:contentDescription="@string/app_name"
        app:layout_constraintBottom_toTopOf="@+id/imageView6"
        app:layout_constraintEnd_toStartOf="@+id/imageView2"
        app:layout_constraintHorizontal_bias="0.5"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toTopOf="parent"
        app:srcCompat="@drawable/grid_1" />

</android.support.constraint.ConstraintLayout>
```

Design Text

Android Studio



Documentation

OVERVIEW

GUIDES

REFERENCE

SAMPLES

DESIGN & QUALITY

App Basics

- Introduction
- ▶ Build your first app
- App fundamentals
- ▶ App resources
- ▶ App manifest file
- ▶ App permissions

Devices

- ▶ Device compatibility
- ▶ Wear
- ▶ Android TV
- ▶ Android for Cars
- ▶ Android Things
- ▶ Chrome OS devices

Core topics

- ▼ Activities
 - Introduction to activities
 - The activity lifecycle
 - Activity state changes

[Test your activities](#)

- Tasks and back stack
- Processes and app lifecycle
- Parcelables and bundles

Android Developers > Docs > Guides



Test your app's activities

Activities serve as containers for every user interaction within your app, so it's important to test how your app's activities behave during device-level events, such as the following:

- Another app, such as the device's phone app, interrupts your app's activity.
- The system destroys and recreates your activity.
- The user places your activity in a new windowing environment, such as picture-in-picture (PIP) or multi-window.

In particular, it's important to ensure that your activity behaves correctly in response to the events described in [Understanding the Activity Lifecycle](#).

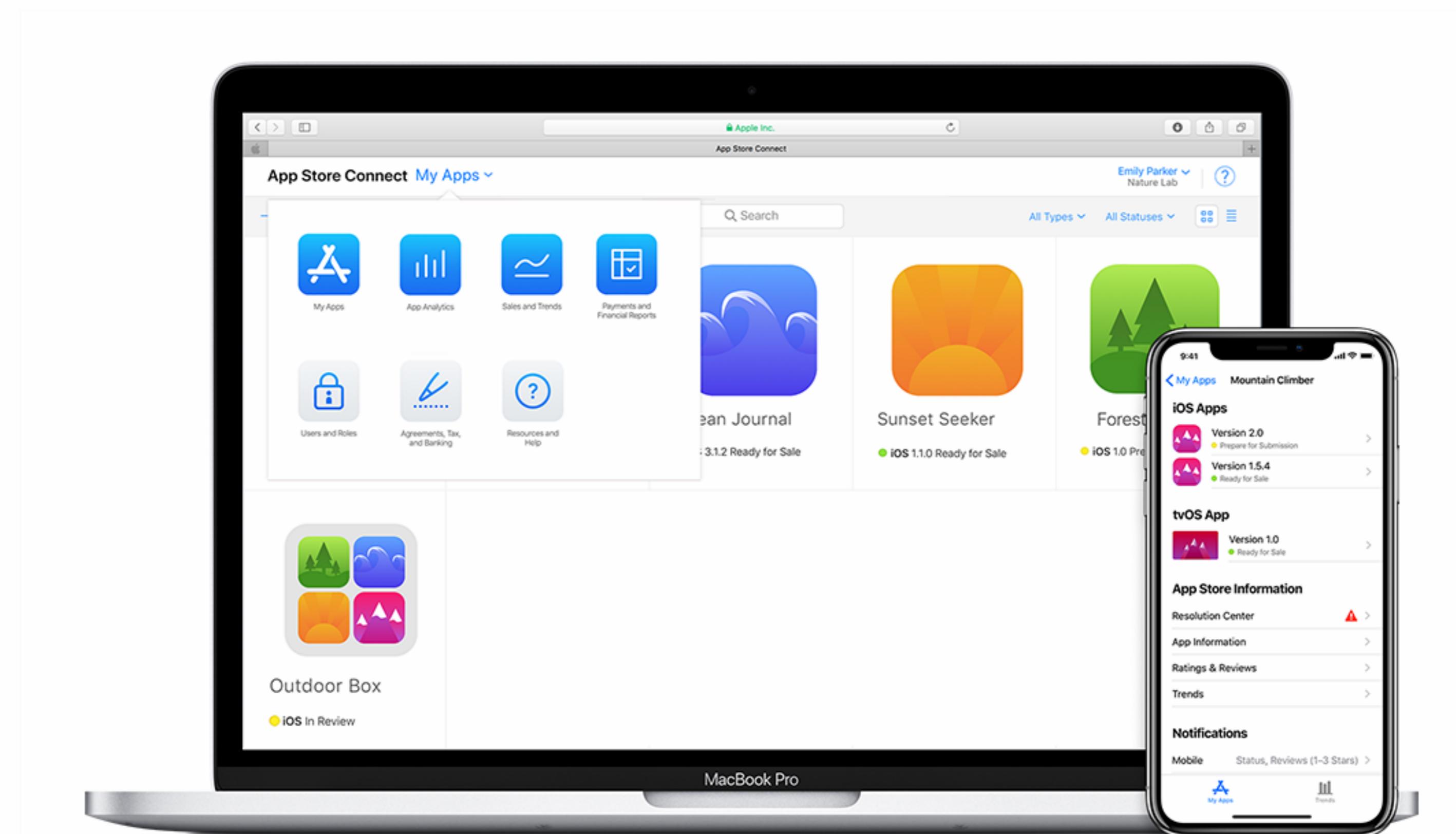
This guide describes how to evaluate your app's ability to maintain data integrity and a good user experience as your app's activities transition through different states in their lifecycles.

Drive an activity's state

One key aspect of testing your app's activities involves placing your app's activities in particular states. To define this "given" part of your tests, use instances of `ActivityScenario`, part of the `AndroidX Test` library. By using this

Contents

- Drive an activity's state
- Create an activity
- Drive the activity to a new state
- Determine the current activity state
- Recreate the activity
- Retrieve activity results
- Trigger actions in the activity



Designers

DesignerNews

Pages

iOS

Android

Web

App Icon

iOS

▶ Web View

▶ Launch

▶ Reply

▶ Comments

▶ Menu

▶ Login Keyboard

▶ Login Keyboard

▶ Login

▶ Home

Filter

123

25%

Create Symbol Mask Make Grid Colors

- 🔎 +

Edit Scissors Vectorize Stroke Flatten Union Mirror Share Export Insert

Position X Y

Size Width Height

Transform Rotate Flip

Opacity

Blending Normal

Fills

Borders

Shadows

Inner Shadows

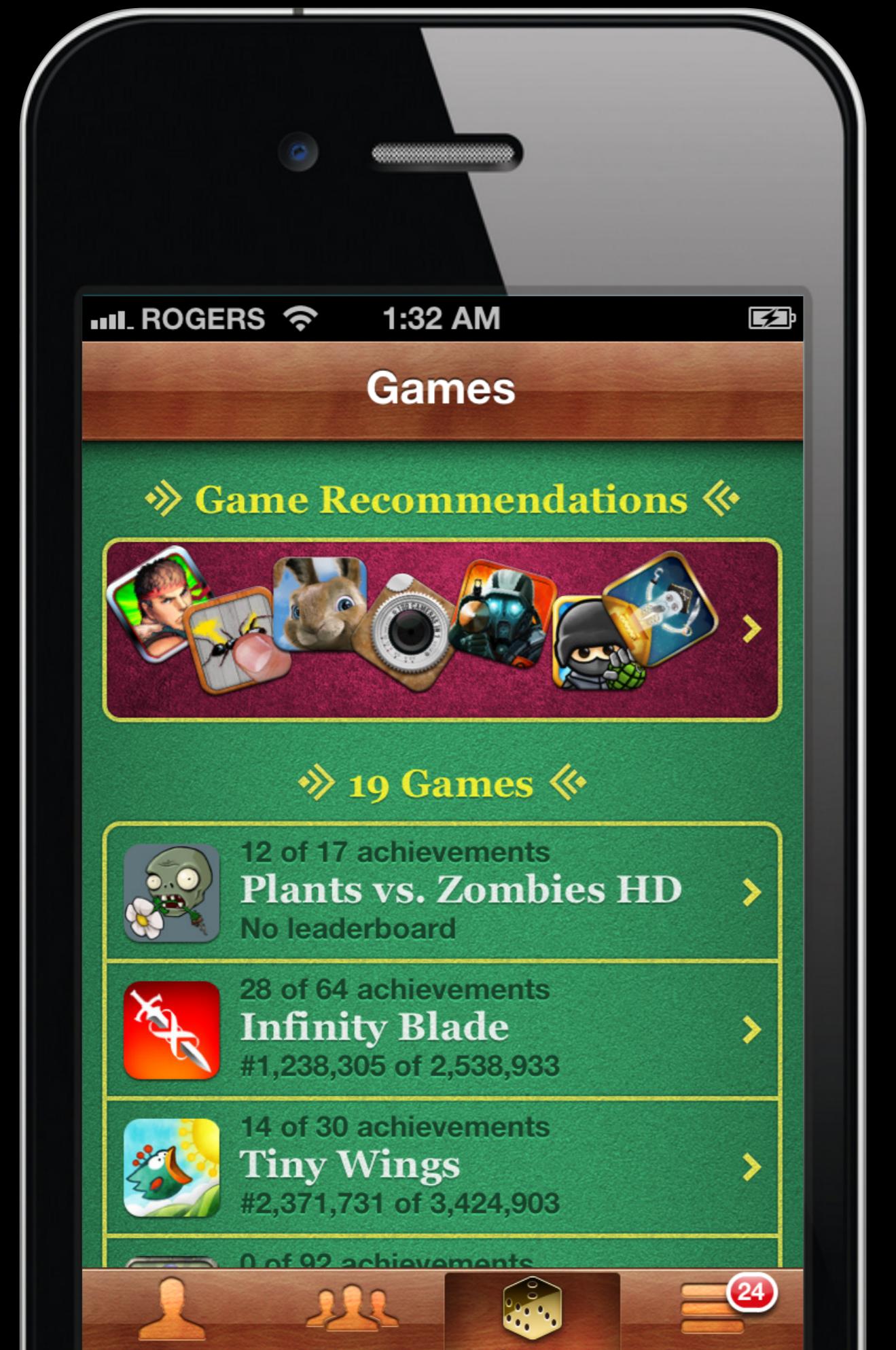
Gaussian Blur

The Home screen displays a collection of mobile application wireframes for a news app called "DesignerNews". The wireframes include:

- Home:** Shows top stories and user comments.
- Menu:** Shows navigation options like Top Stories, Recent, Learn iOS, and Logout.
- Comments:** Shows a comment section with replies.
- Reply:** Shows a reply screen with a keyboard.
- Launch:** Shows the launch screen with a message about the iOS app launch.
- Web View:** Shows a landscape-oriented web view of a purple mountain scene.

The interface includes various tools and panels on the right side for editing, such as:

- Toolbar icons: Create Symbol, Mask, Make Grid, Colors, Edit, Scissors, Vectorize Stroke, Flatten, Union, Mirror, Share, Export, Insert.
- Zoom controls: - 🔎 +.
- Color palette: A color wheel icon.
- Positioning and transformation sliders for X, Y, Width, Height, Rotate, and Flip.
- Opacity and Blending controls.
- Fill and border settings.
- Shadow and Gaussian Blur settings.





Components

App bars: bottom

App bars: top

Backdrop

Banners

Bottom navigation

Buttons

Buttons: floating action button

Cards

Chips

Data tables

Dialogs

Dividers

Image lists

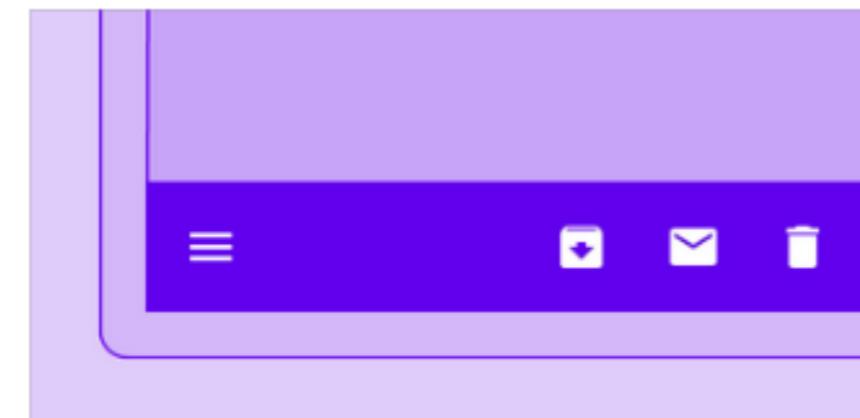
Lists

Menus

Components

Material Components are interactive building blocks for creating a user interface.

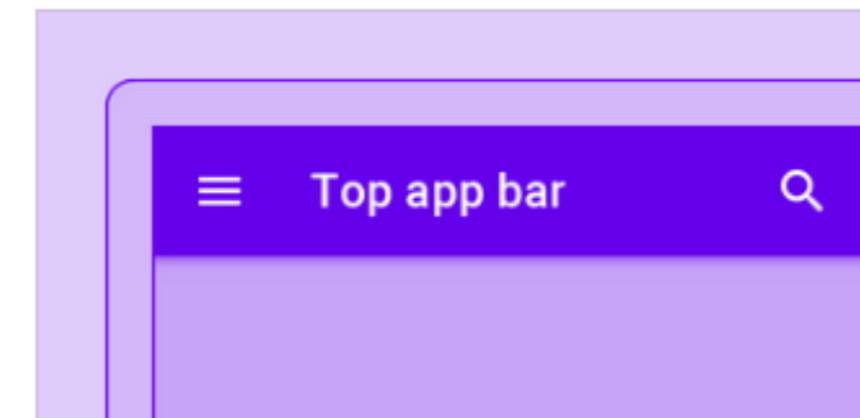
Many are available as open-source code for [Android](#), [iOS](#), [the web](#), and [Flutter](#).



App bars: bottom

A bottom app bar displays navigation and key actions at the bottom of mobile screens

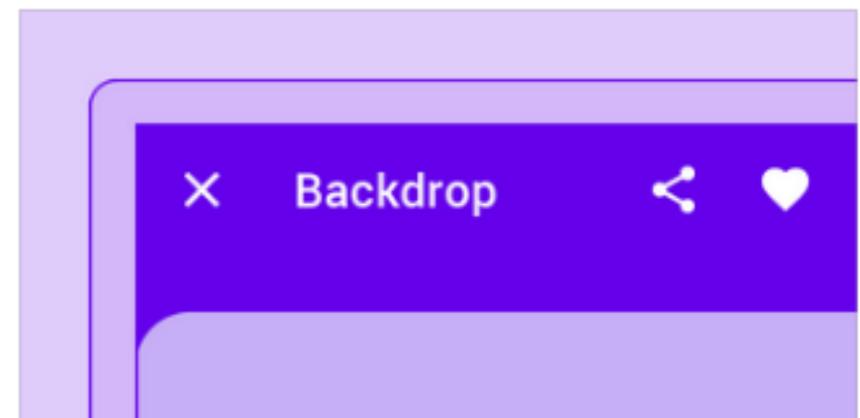
[Android](#) [iOS](#) [Flutter](#)



App bars: top

The top app bar displays information and actions relating to the current screen

[Android](#) [iOS](#) [Web](#) [Flutter](#)



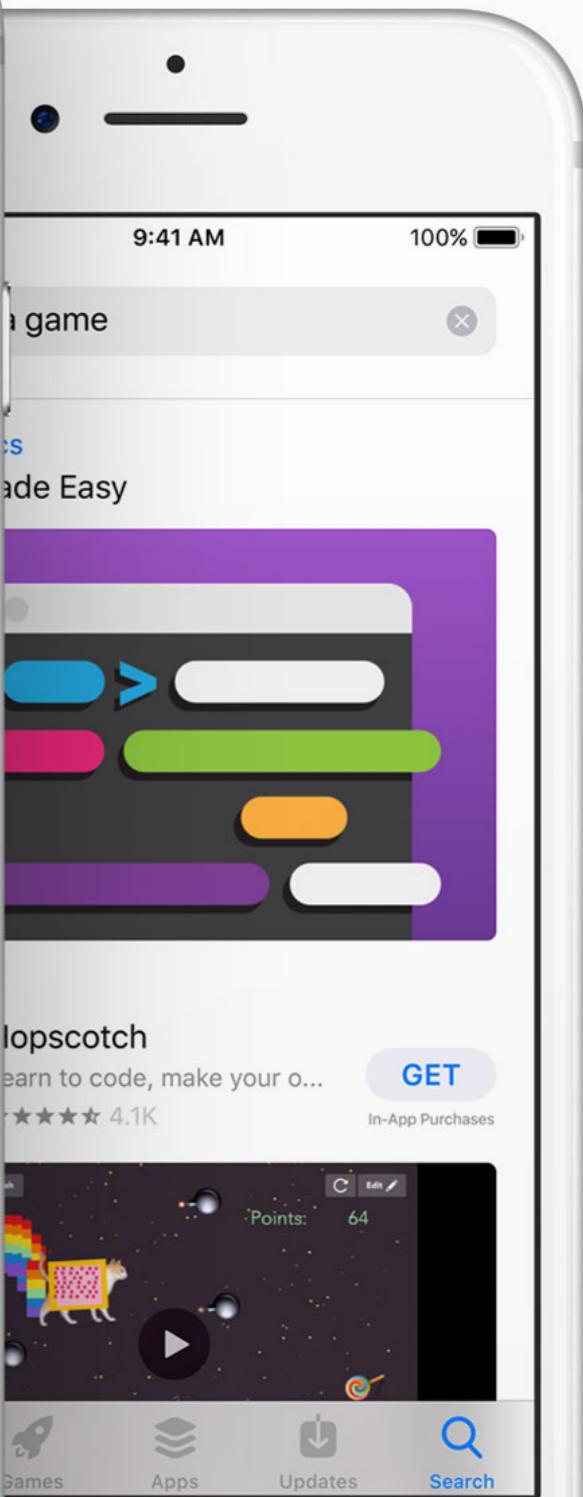
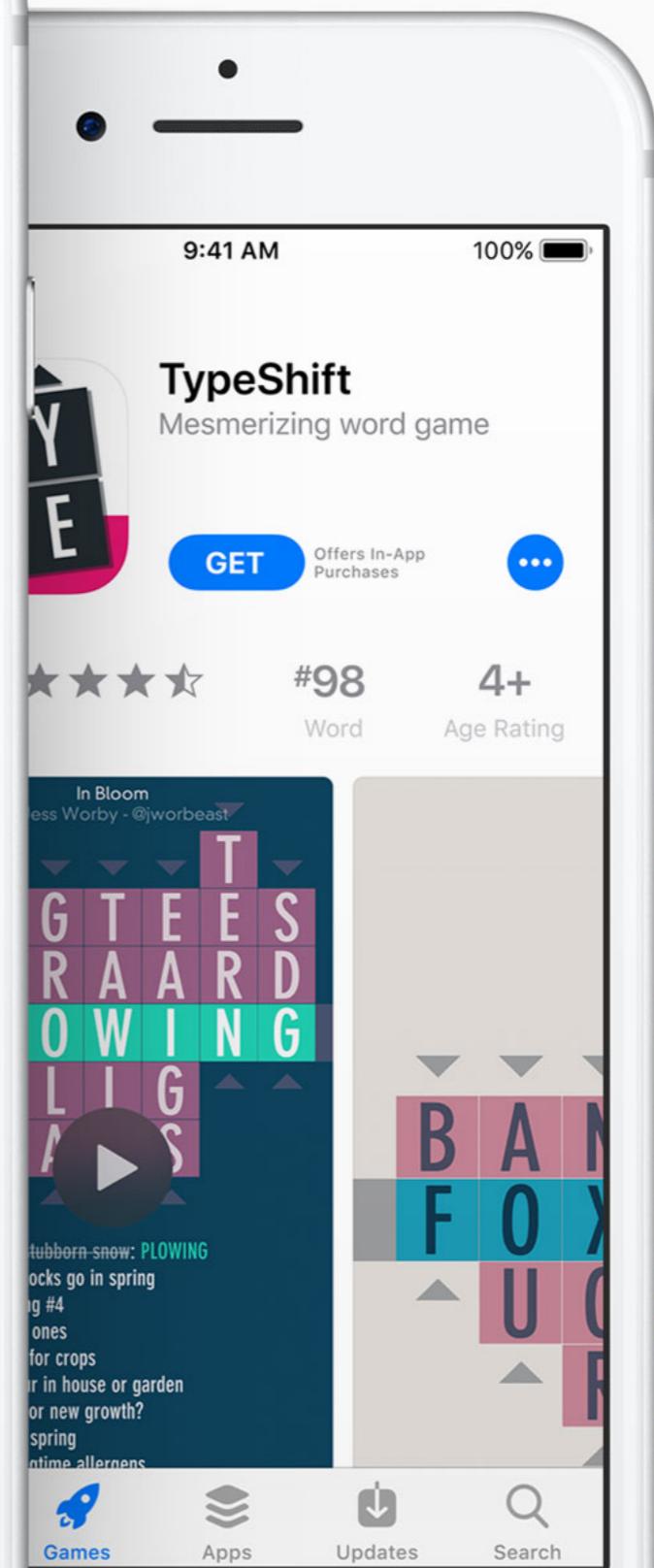
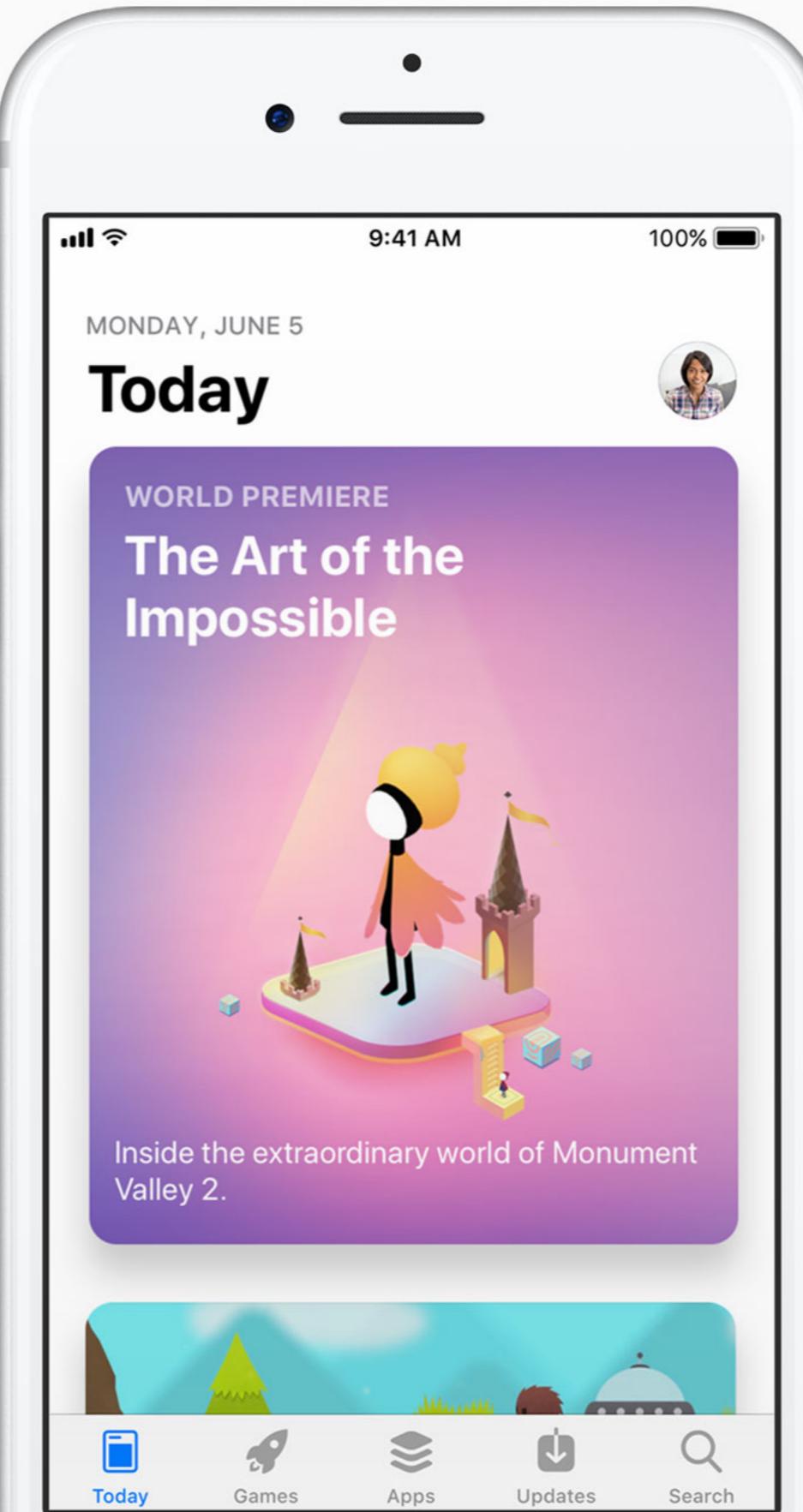
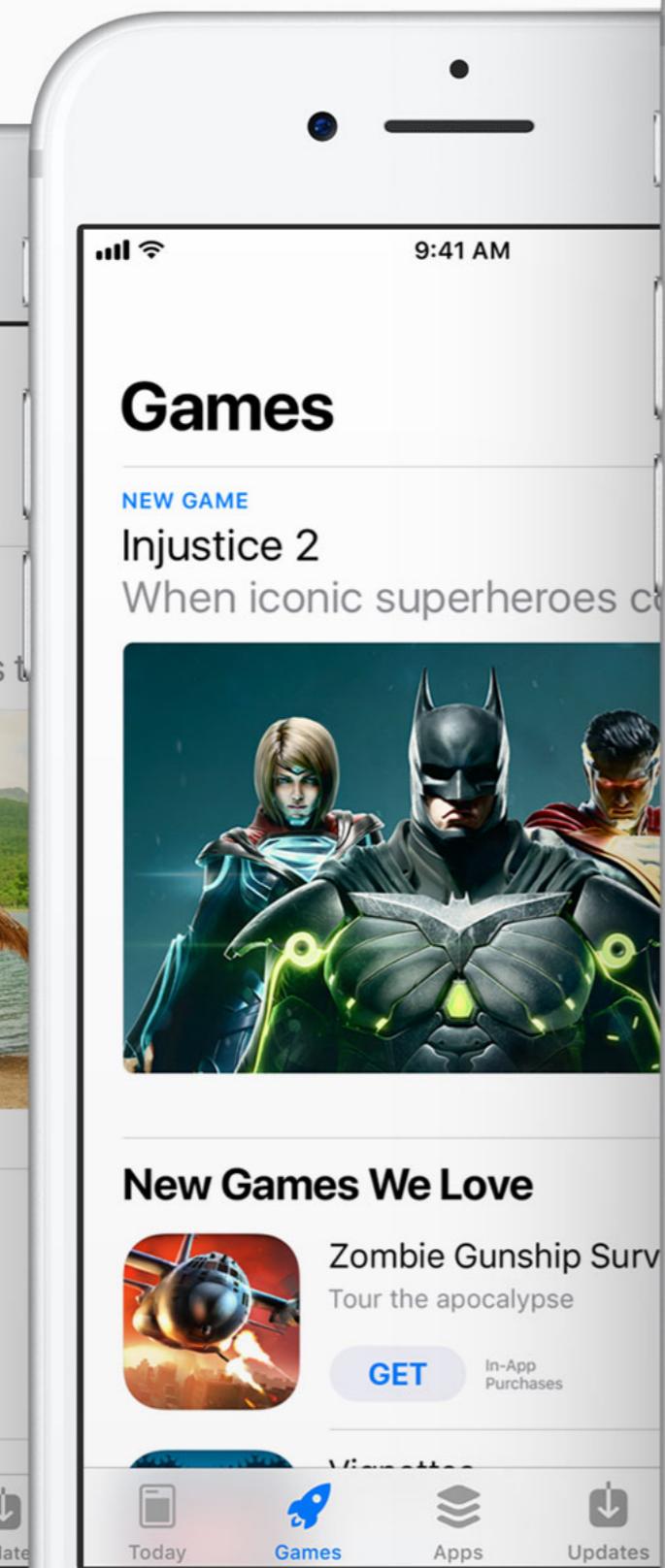
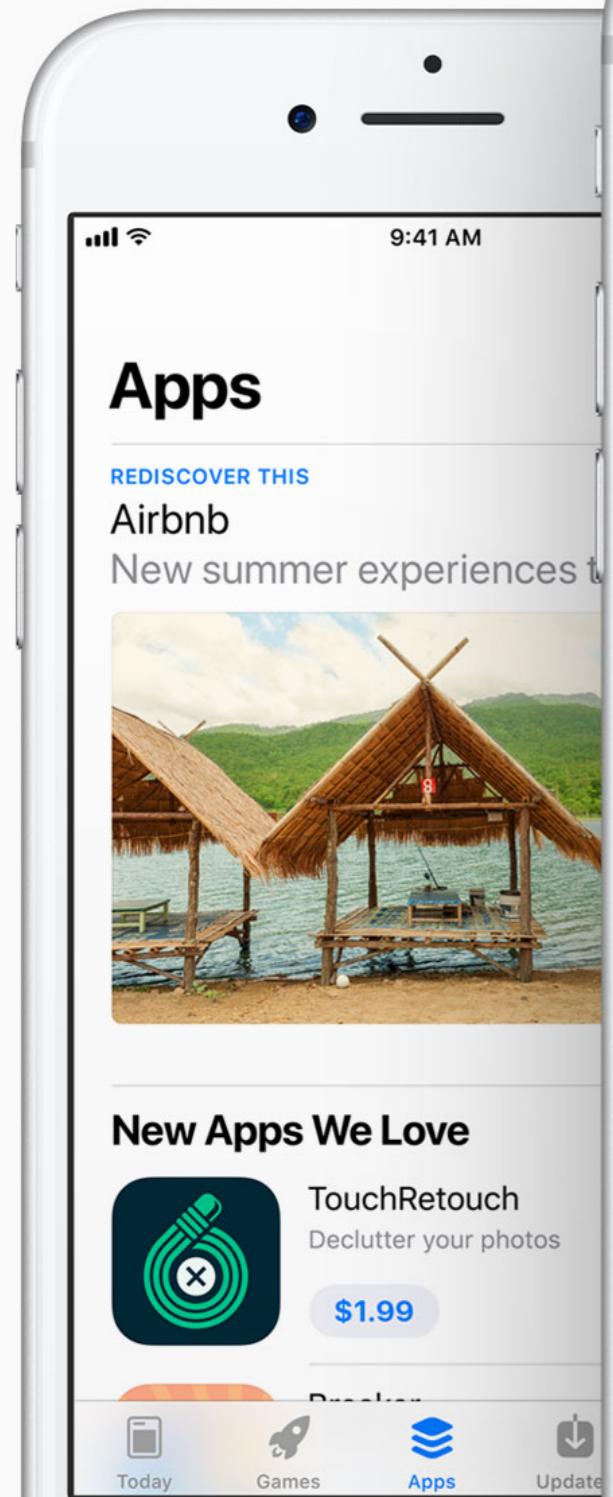
Backdrop

A backdrop appears behind all other surfaces in an app, displaying contextual and actionable content

[Flutter](#)

End Users

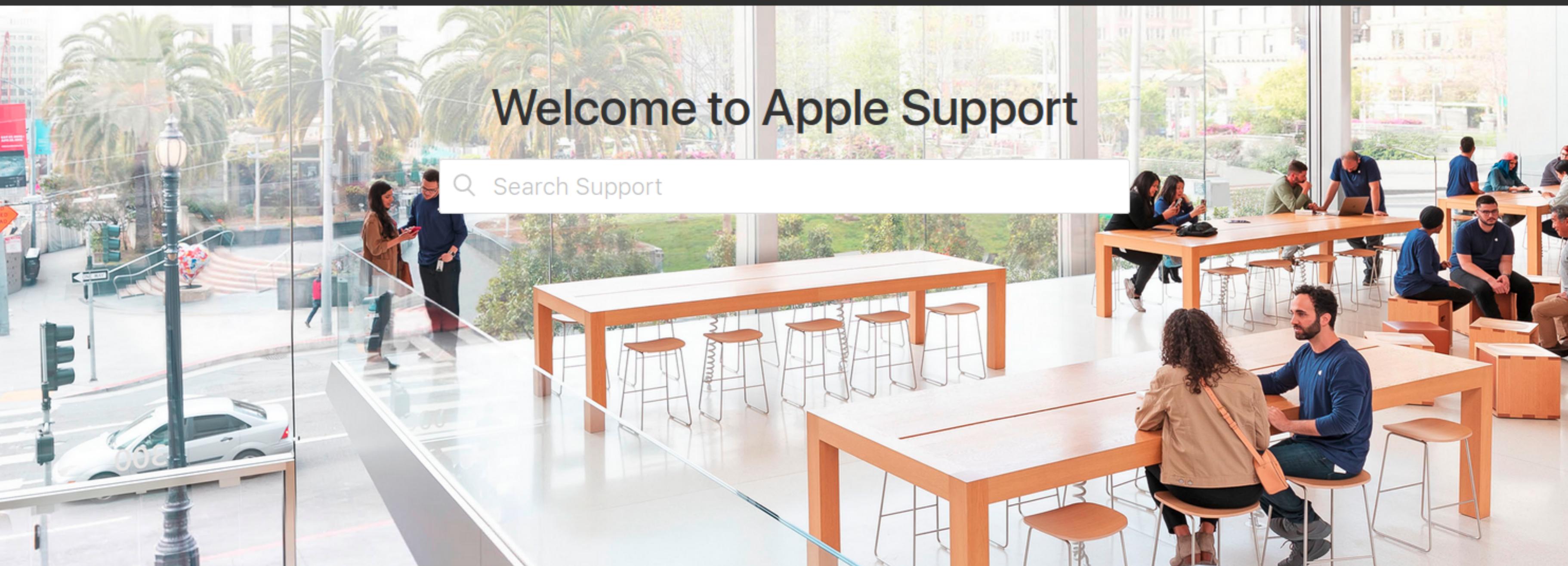




[Mac](#)[iPad](#)[iPhone](#)[Watch](#)[TV](#)[Music](#)[Support](#)

Welcome to Apple Support

Search Support

[iPhone](#)[Mac](#)[iPad](#)[Apple Watch](#)[Music](#)[TV](#)

Platform



Developers

Developer OS
SDK
Documentation
App Store

Designers

Design Tooling
Design Language
HIG

End Users

Consumer OS
App Store
User Support

Operating System

Developer SDK

Design Language

App Store

**So in our case, what
qualifies as platforms?**

Linux



Operating
System



Developer
SDK



Design
Language



App
Store

FreeDesktop.org



Operating
System



Developer
SDK



Design
Language



App
Store

Ubuntu



Operating
System



Developer
SDK



Design
Language



App
Store

GNOME



Operating
System



Developer
SDK



Design
Language



App
Store

elementary



Operating
System



Developer
SDK



Design
Language



App
Store

The desktop environment is a dark-themed workspace with several open applications:

- Planner (Top Left):** A productivity application titled "Byte" showing tasks for "Today" (Nov 4). Tasks include "Groceries" (0/5), "Clean floors", and "Clean kitchen".
- Dot Matrix (Top Right):** A grid-based application showing a pattern of dots.
- Calculator (Bottom Left):** A standard calculator interface displaying the number 99902481.
- Color Picker (Bottom Right):** A color palette tool showing a base color of #ef2929 and a color name of "My Color". It includes a "Copy" button and a preview area.
- Presentation (Center):** A presentation slide titled "Untitled Presentation 1" with the text "Apps are Cool Especially this one".
- Recordings (Bottom Left):** A recording application showing a microphone icon and options for format (WAV) and automatic saving.

**Why are they
the only ones??**

Chapter II

The Means of Distribution



Home directory



Red Hat
Support



Floppy 0



Mon Jul 21
1:31 PM



Computer



Home



Garbage bin

Butterfly

Search Link Text Tools Delete

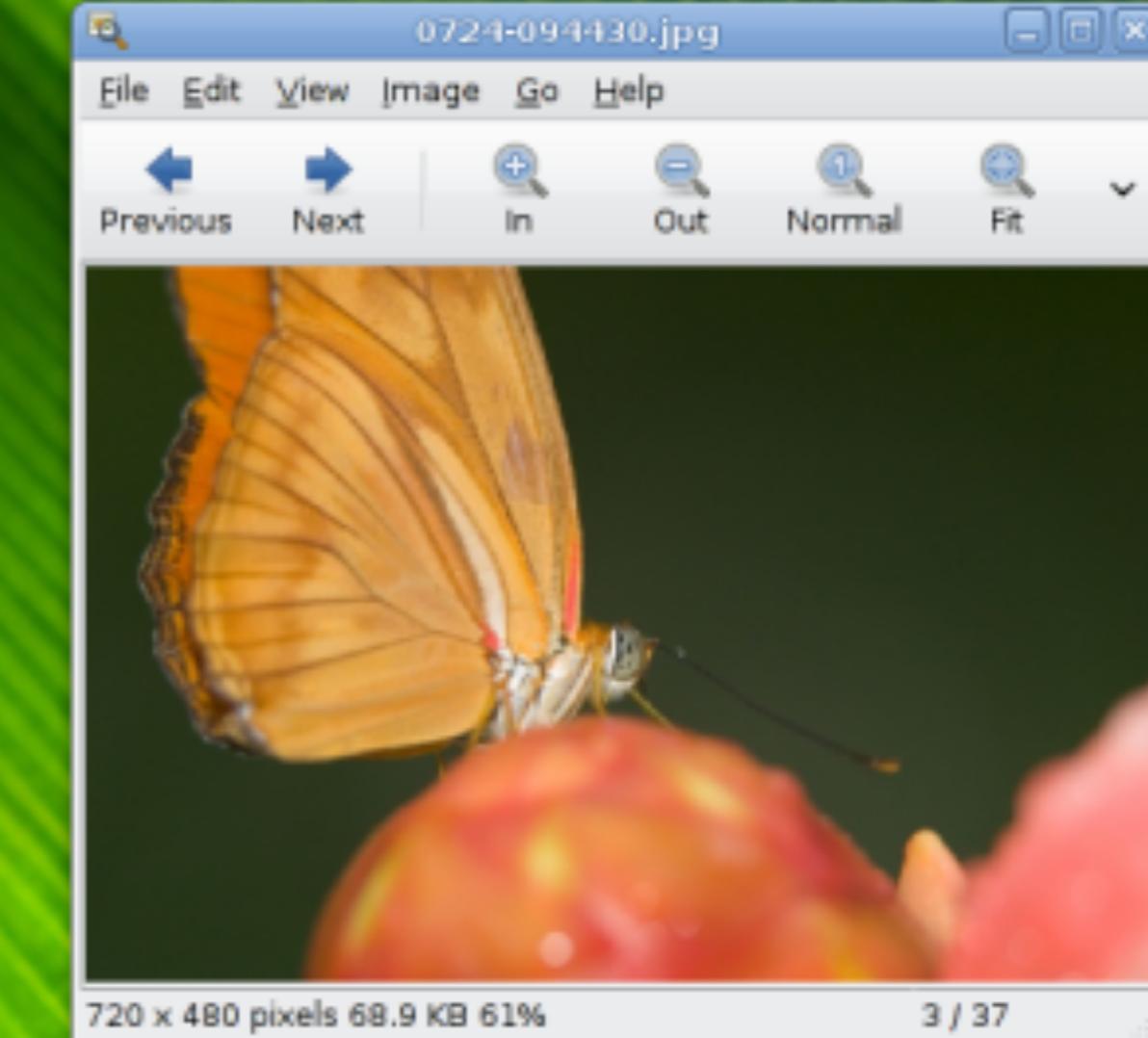
Butterfly

Kingdom: Animalia
Phylum: Arthropoda
Class: Insecta
Order: Lepidoptera
(unranked)

- Superfamily
 - [Hedylidae](#)
 - Superfamily
 - [Hesperiidae](#)
 - Superfamily
 - [Papilionoidea](#)
 - [Pieridae](#)
- Skippers differ in several important ways from the remaining butterflies, which are classified in the superfamily [Papilionoidea](#) and the neotropical superfamily Hedyloidea. Collectively, these three groups of butterflies share several characteristics especially in the egg, larval and pupal stage (Ackery et al. 1999). However, skippers have the antennae clubs hooked backward like a crochet, whilst butterflies have club-like tips to their antennae and hedylids have feathered or pectinate antennae giving them an even more "moth"-like appearance than skippers. Skippers also have generally stockier bodies than the other two groups, with stronger wing muscles. Hesperioidae is very likely the sister group of [Papilionoidea](#), and together with Hedyloidea constitute a natural group or clade.

Hedylidae

Search Link Text Tools Delete



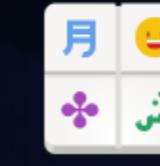
🔍 Type to search...



Boxes



Calendar



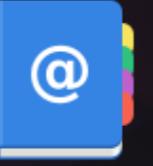
Characters



Cheese



Clocks



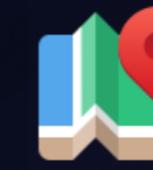
Contacts



Document Scan...



Files



Maps



Music



Photos



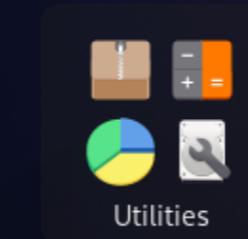
Settings



Software



Text Editor



Utilities



Videos



Weather



Web

Desktops → Platforms

The Shape of Design

"No sensible decision can be made any longer without taking into account not only the world as it is, but the world as it will be....This, in turn, means that our statesmen, our businessmen, our everyman must take on a science fictional way of thinking."

ISSAC ASIMOV

CHAPTER FIVE
FICTION AND BRIDGES

There's something about speaking, even if only to oneself, that makes the mind work. Our verbal cowpaths are paved through conversation. Speaking to ourselves is a crude tool to hack our way toward clearer thinking. But in spite of its obvious benefits, I become self-conscious when I'm caught talking to myself. I freeze. I try to find a chair to hide behind. I cover my eyes, pull my cap down, and pretend that if I can't see them, they won't see me. I'm not here. I've just disappeared. The man you saw talking to himself was only a part of your imagination.

Perhaps my embarrassment comes from a pri-

About Palette

Blue Green Yellow +

There is no "Linux" platform

A frequent meme in our community is the idea that there is a "Linux

Shortwave

digital Impulse - Electro Swin... Croatia Zagreb · 207 Votes

radio Swiss Jazz Switzerland Bern · 1504 Votes

Tuneln - Swing Time United States of America · 51 ...

TUNE IN SWING TIME

Export

zz - www.radi... So So So eninao

32 64 128

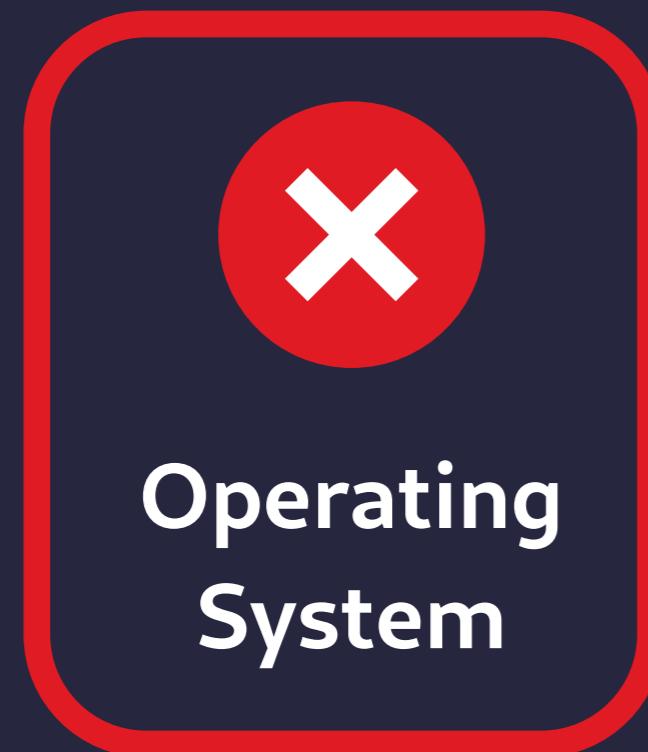
Messag... Photos Logs Passwo...

Authenticator Photos Podcasts Authenticator Photos Podcasts

Copy to Clipboard Save As...

mountain

GNOME



Operating
System



Developer
SDK



Design
Language



App
Store

**But where does
that leave distros?**

Desktop Developers



Distro Repositories



End Users

**And that's
kind of awkward**

**“Yeah, we’ve been dealing
with this since forever”**

— App Developers

**Desktop
Developers**

**App
Developers**

Distro Repositories

End Users

Developer gripes

Release schedule

Packaging issues

Overriding upstream decisions

Distro Theming

The Wrong Incentives



Search Google and more...



Reformat



Internet



Documents



LibreOffice
Writer



LibreOffice
Calc



LibreOffice
Impress



Get VLC



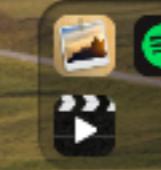
Facebook



WhatsApp



YouTube



Media



Curiosity



Games



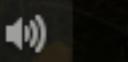
Social



Music



More Apps

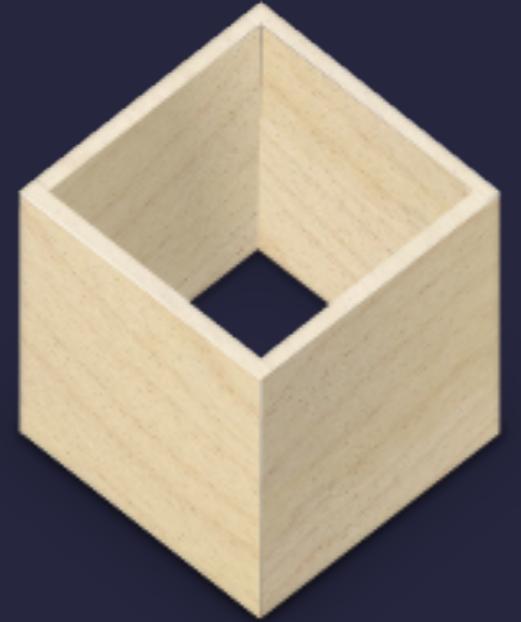


16:52



Chapter III

Power to the Makers



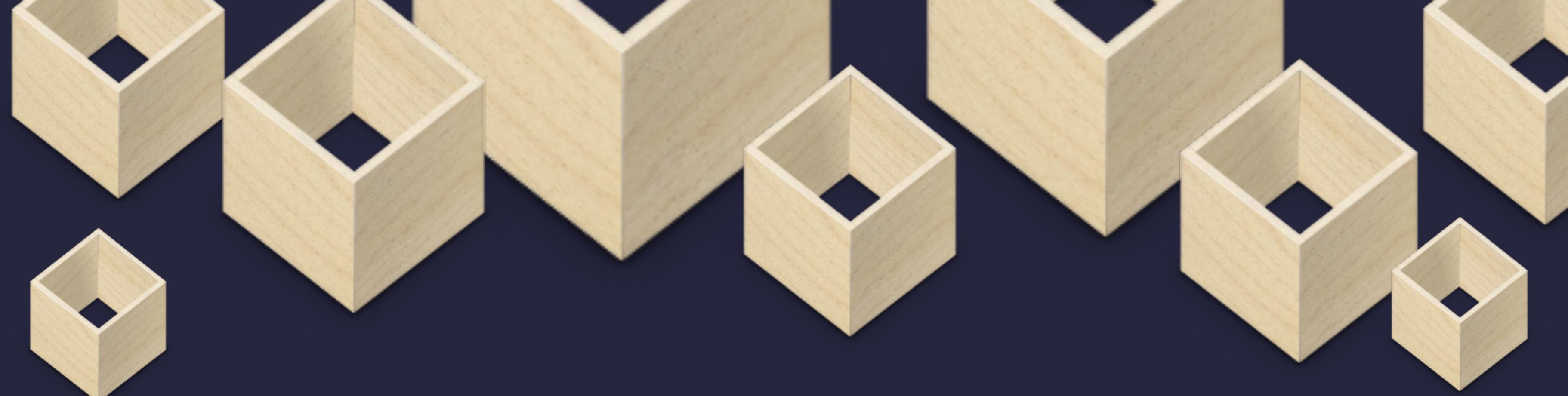
Flatpak



GNOME Builder



Flathub

A collection of light-colored wooden boxes with dark blue square holes in their centers, arranged in a staggered grid pattern against a dark navy blue background.

Not so fast...

The Host still matters

Technical Issues

Flatpak version / Portals

Platform APIs: Keyring, EDS, Tracker

Display Server / GL drivers

UX Issues

Shell UI integration

Stylesheet & icons

Design patterns

**Desktop
Developers**

**App
Developers**

Distro Repositories

End Users



**Distro/Desktop conflicts
remain unaddressed**

Structural Issues

Fragmentation Issues

Configuration Issues

Structural Issues

Release Cycle

System UX changes

Theming / Branding

Activities

Files ▾

Tue 18:13



< > ⌂ Home



Recent

Home

Desktop

Documents

Downloads

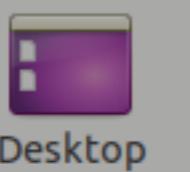
Music

Pictures

Videos

Trash

+ Other Locations



Desktop



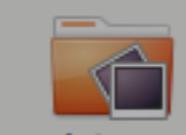
Documents



Downloads



Music



Pictures



Public



Templates



Videos



Examples

Cancel

New Folder

Create

Folder name

Fragmentation Issues

OS Installer

Package Formats

GNOME Software

INSTALLATION DESTINATION

[Done](#)

FEDORA 26 INSTALLATION



us

[Help!](#)

Device Selection

Select the device(s) you'd like to install to. They will be left untouched until you click on the main menu's "Begin Installation" button.

Local Standard Disks

20 GiB



ATA QEMU HARDDISK

sda / 992.5 KiB free

1024 MiB



ATA QEMU HARDDISK

sdb / 1024 MiB free

1024 MiB



0x1af4

vda / 1023 KiB free

Disks left unselected here will not be touched.

Specialized & Network Disks

[Add a disk...](#)*Disks left unselected here will not be touched.*

Storage Configuration

 Automatic Custom Advanced Custom (Blivet-GUI)[Full disk summary and boot loader...](#)3 disks selected; 22 GiB capacity; 1 GiB free [Refresh...](#)

Configuration Issues

Default Apps

Settings, Fonts, Terminal etc.

Bootup UX / Plymouth



.....

Unlocking the disk /dev/disk/by-uuid/da1791b4-2091-4ec5-b526-ac3d994f17d6 (sdb5_crypt)
Enter passphrase:

**How does all that tie in
with App Ecosystems?**

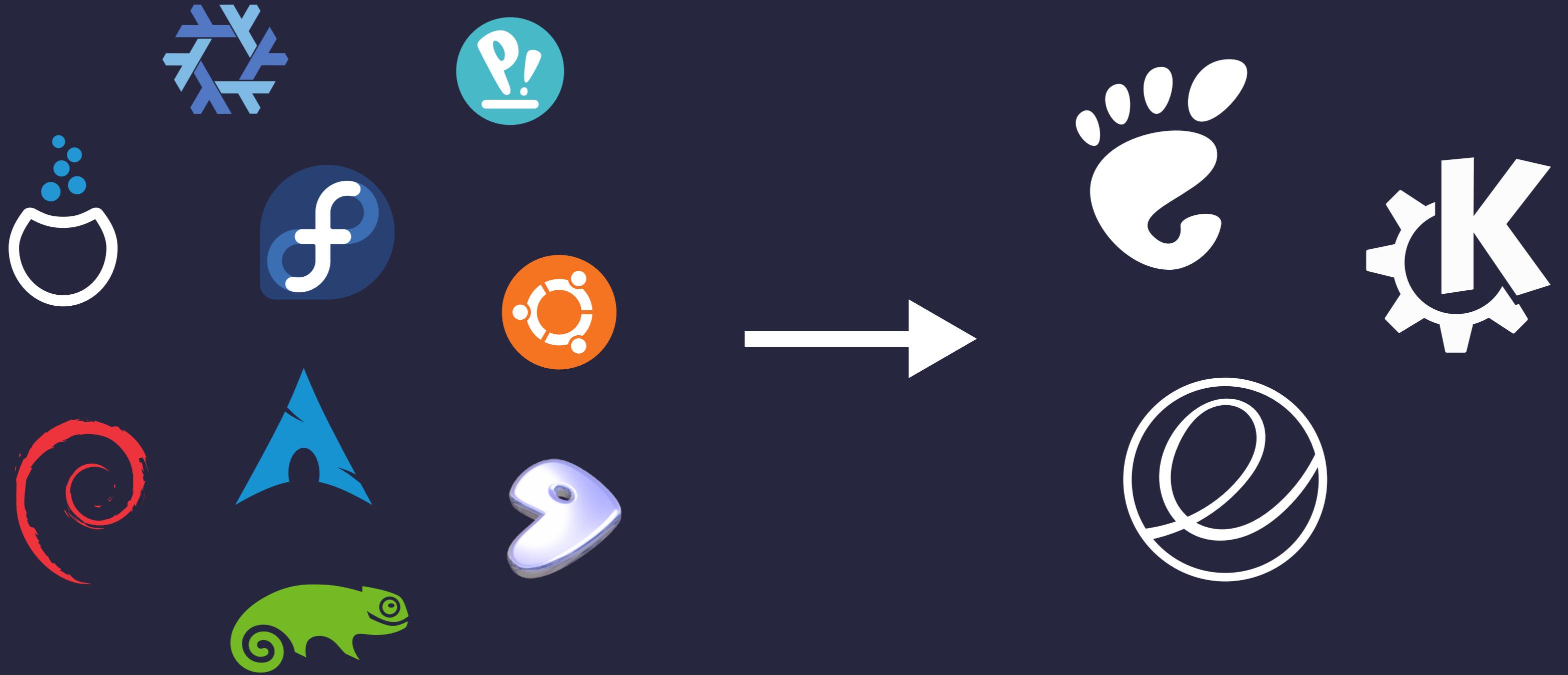
Healthy App Ecosystems



We need real Platforms

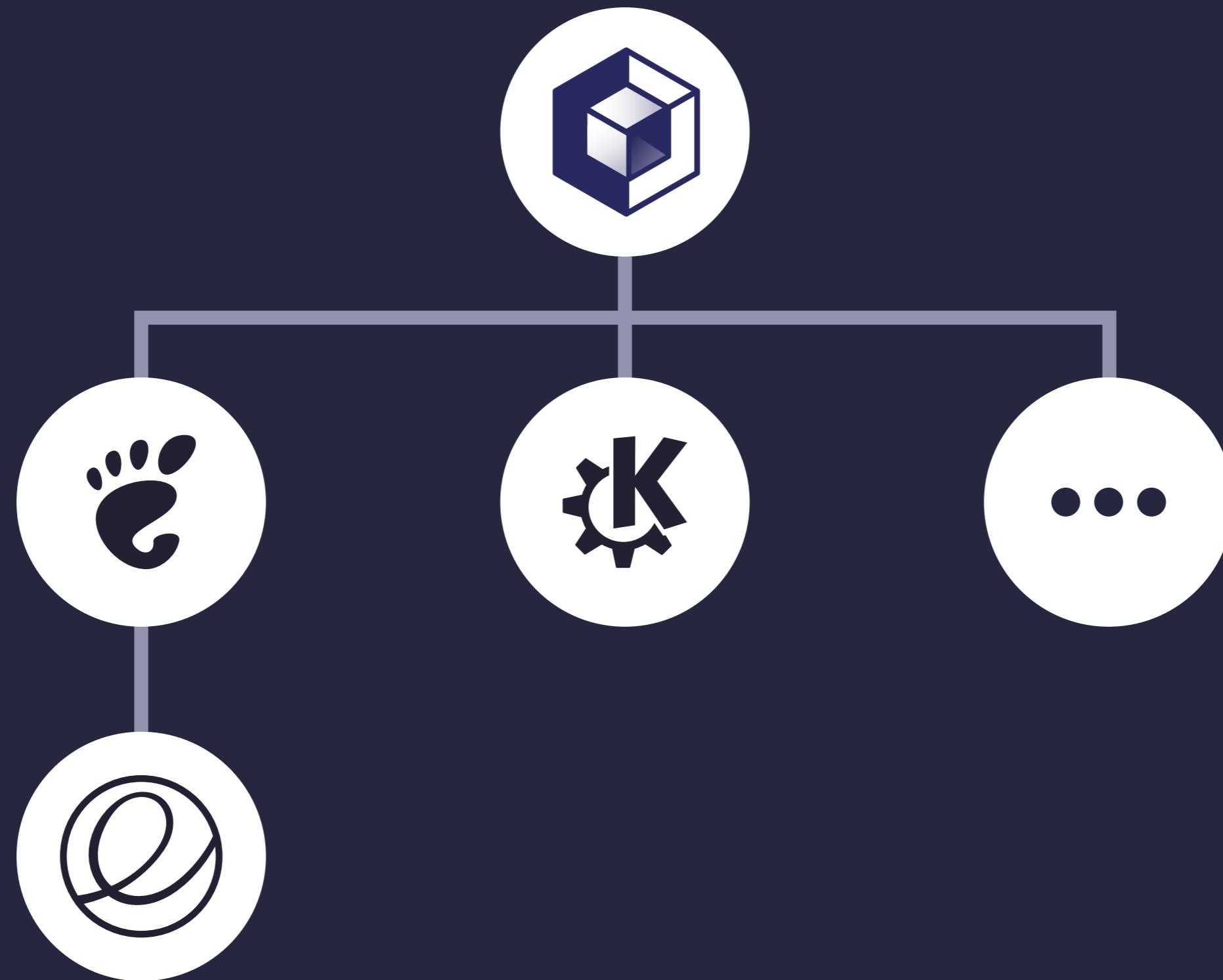


We need to fix Desktop/Distro conflicts



**So, how could
we do that?**

FreeDesktop SDK



**Desktop
Developers**

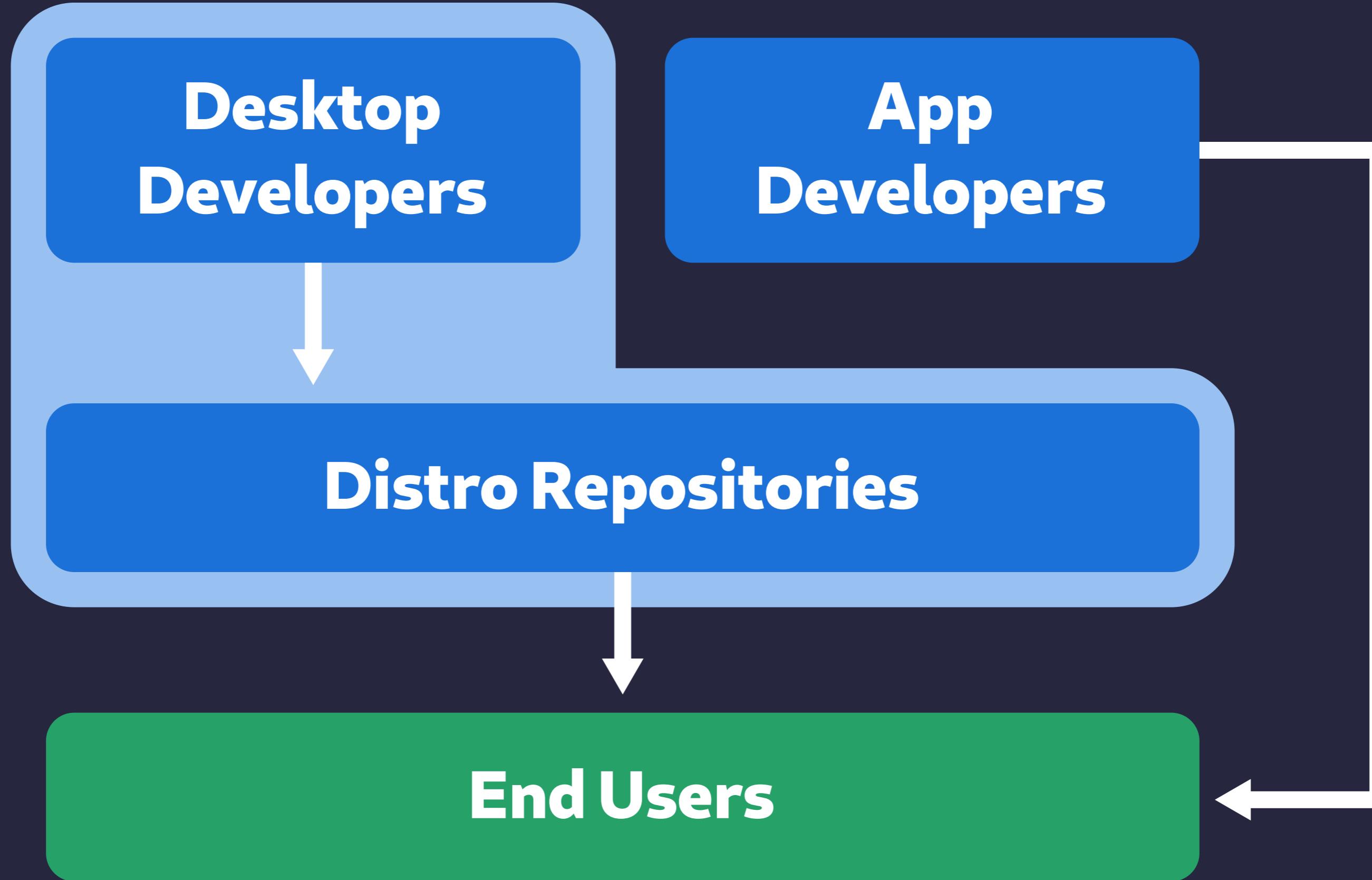
**App
Developers**

Distro Repositories

End Users



**Not likely in the
short term...**



Coordination across
the stack

Chapter IV

Swimming Upstream

Chapter IV

Swimming Upstream

Structural Issues

Synchronized Release Cycle

No downstream UX changes

Branding APIs

Fragmentation Issues

OS Installer

Flatpak FTW

GNOME Software

Configuration Issues

Upstream default apps

Upstream default settings

Bootup UX / Plymouth

Upstream all the things!

Upstream all the things!

Final Chapter

Long Story Short

**Let's finally stop
saying “Linux”**

To get apps we need
real platforms

Let's make it happen :)

Thanks