

# meta-flatpak

Flatpak in Yocto, Yocto in Flatpak





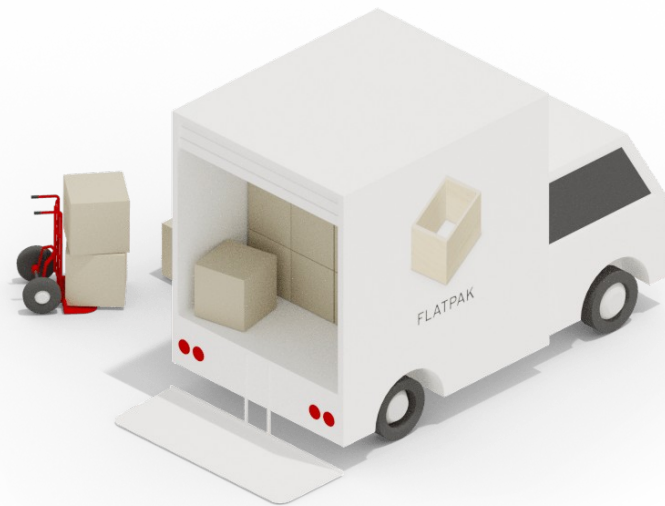
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# Flatpak

**Solution for app packaging, distribution and sandboxing.**

- App/runtime split.
- OSTree-based



# Flathub

**1,407 desktop/mobile apps  
ready to run on your device.**

**Or...** create your own runtime and  
your own ecosystem of apps.

## Apps for Linux, right here

Welcome to Flathub, the home of hundreds of apps which can be easily installed on any Linux distribution. Browse the apps online, from your app center or the command line.

Quick setup

Browse the apps

### Popular Apps

See more



Firefox  
Mozilla Firefox Web Browser



Spotify  
Online music streaming se...



DeSmuME  
Nintendo DS emulator



Minecraft Bedrock La...  
Download and play Minec...

### New & Updated Apps

See more



Yuzu  
Nintendo Switch emulator



RPCS3  
Open-source Sony PlaySta...



Typora  
A minimal Markdown read...



Kodi  
The ultimate entertainme...

# meta-flatpak

Created by Intel in 2016, maintained 2016-2017 as part of  
<https://github.com/intel/intel-iot-refkit>

Updated by Codethink in 2021, and now moved to  
<https://github.com/flatpak/meta-flatpak>

Goal: enable Flatpak in Automotive Grade Linux.

# Flatpak in Yocto

Instructions from *AGL.md*.

## **Step 1: add layers**

```
bitbake-layers add-layer  
    meta-openembedded/meta-oe  
    meta-openembedded/meta-gnome  
    meta-openembedded/meta-filessystems  
    meta-openembedded/meta-networking  
    meta-flatpak
```

# Flatpak in Yocto

Instructions from *AGL.md*.

## Step 2: update local.conf

```
# Include flatpak in the image.  
IMAGE_INSTALL_append = " flatpak"  
  
# Make sure we get the necessary dependencies  
DISTRO_FEATURES_append = " wayland seccomp"  
  
# Include configuration from this repo  
include conf/distro/include/flatpak-applications.inc
```

Make sure your rootfs has 1GB or more free for apps & runtimes.



# Video demo

<https://www.youtube.com/watch?v=6k4jNcmvlWk>



# I want to build a runtime...

A **Flatpak runtime** is a container image of runtime dependencies, with Flatpak-specific metadata, delivered using OSTree.

A **Flatpak SDK** is the same with build dependencies + devtools.

Most apps use Freedesktop, GNOME or KDE runtimes:

- originally built with Yocto
- later bootstrapped independently using Buildstream



freedesktop-sdk

# Yocto in Flatpak

SDK and runtime must be a separate targets.

Minimal example (see *core-image-flatpak-runtime.bb*):

```
include ../meta/recipes-core/images/core-image-minimal.bb
```

```
IMAGE_FSTYPES = ""
```

```
inherit flatpak-image
```

**Thanks for listening!**

**Questions?**



<https://codethink.co.uk>