
Subject: How to create AppImage

Posted by [Zbych](#) on Wed, 22 Nov 2023 20:27:35 GMT

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Hi everyone,

As you probably know, creating universal binary packages for Linux can be a pain in the butt. To make this pain a little less, I decided to play around with AppImage - a minimalist container. AppImage allows you to pack your application, necessary libraries and assets into a single executable (and hopefully portable) file.

Unfortunately, AppImage doesn't solve the problem of missing or incompatible libraries on its own, you have to tell it which libraries should be part of your application.

It also means you have to build your application on the oldest system you want to support.

Before you start, I recommend reading this:

<https://docs.appimage.org/reference/best-practices.html#>

To build AppImage:

1. Create directory structure like this:

MyAppName.AppDir
MyAppName.AppDir/usr/bin/
MyAppName.AppDir/usr/lib/

More information is here: <https://docs.appimage.org/reference/appdir.html>

2. Copy your binary to MyAppName.AppDir/usr/bin/

3. Copy the necessary libraries to MyAppName.AppDir/usr/lib/

4. Copy the application icon to MyAppName.AppDir/MyAppName.png

5. Create a desktop file for your application in MyAppName.AppDir/MyAppName.desktop:

```
[Desktop Entry]
Type=Application
Name=MyAppName
Exec=MyAppName
Icon=MyAppName
StartupNotify=true
Categories=Utility;
```

6. Remove hardcoded paths from your binaries and libraries:

```
sed -i -e 's#/usr#./#g' MyAppName.AppDir/usr/bin/MyAppName
```

7. Download bootstrap application AppRun and place it in MyAppName.AppDir/AppRun

When the directory structure is ready run the appimage tool to build AppImage. Voilà.

To automate these steps I created a simple bash script and added it to Thelde to automatically build Appliance.

1. Copy the script into your project directory
2. Open the project properties in the IDE and select "Custom build steps"
3. Press "insert" to add a new line and type post-link as the extension,
3. select the added line and paste into commands:

```
bash $(DIR)/make_app_image.sh $(EXEDIR)/$(EXEFILE)
```

File Attachments

- 1) [make_app_image.sh](#), downloaded 149 times
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