

## Contenido

1. **Introducción:** Qué es `dir2rpm` y para qué sirve.
2. **Requisitos:** Dependencias y sistema operativo.
3. **Instalación:** Cómo instalarlo (RPM y fuente).
4. **Uso:** Instrucciones para CLI y GUI, con ejemplos.
5. **Configuración avanzada:** Uso de `metadata.txt` y scripts.
6. **Estructura del proyecto:** Qué hay en la carpeta `dir2rpm/`.
7. **Licencia y créditos:** Información legal y agradecimientos.

# dir2rpm Manual

## Introduction

`dir2rpm` is a tool designed to simplify the creation of binary RPM packages from directory structures, offering both a command-line interface (CLI) and a graphical user interface (GUI) built with PyQt5. Whether you're a terminal enthusiast or prefer a modern graphical experience, `dir2rpm` has you covered.

Inspired by `dpkg-deb --build` from Debian-based systems, this project brings similar functionality to RPM-based distributions like Fedora and openSUSE. It supports custom metadata and maintenance scripts, making it a flexible solution for packaging needs.

## Requirements

- **Operating System:** Fedora (tested on Fedora 41) or any RPM-based Linux distribution.
- **Dependencies:**
  - `bash` : For the CLI script.
  - `rpm-build` : For RPM generation.
  - `python3` : Python interpreter for the GUI.
  - `python3-qt5` : PyQt5 bindings for the GUI.

Install on Fedora:

```
sudo dnf install bash rpm-build python3 python3-qt5
```

## Installation

### Option 1: Pre-built RPM

1. Download `dir2rpm-1.0-1.noarch.rpm` from [GitHub Releases](#).
2. Install it:

```
sudo rpm -ivh dir2rpm-1.0-1.noarch.rpm
```

3. Access the GUI via the application menu ("dir2rpm") or use the CLI with `dir2rpm.sh`.

### Option 2: Build from Source

1. Clone the repository:

```
git clone https://github.com/ecmadrid/dir2rpm.git
cd dir2rpm
```

2. Build and install:

```
./dir2rpm.sh dir2rpm
sudo rpm -ivh dir2rpm-1.0-1.noarch.rpm
```

## Usage

### Command Line Interface (CLI)

Run:

```
dir2rpm.sh <directory>
```

- Generates an RPM from `<directory>` in your current directory.
- Example:

```
mkdir -p test/usr/bin
echo '#!/bin/bash' > test/usr/bin/hello.sh
echo 'echo "Hello from RPM!"' >> test/usr/bin/hello.sh
chmod +x test/usr/bin/hello.sh
./dir2rpm.sh test
# Output: RPM creato: mypackage-1.0-1.noarch.rpm
```

## Graphical User Interface (GUI)

1. Launch:
  - From the application menu ("dir2rpm"), or:

```
/usr/bin/dir2rpm_gui.py
```

2. Steps:
  - Click "Select" to choose a directory.
  - (Optional) Fill in metadata fields (Name, Version, etc.).
  - (Optional) Load maintenance scripts (preinst, postinst, etc.).
  - Click "Create RPM" to generate the RPM in your home directory.
3. Example output: `mypackage-1.0-1.noarch.rpm`.

## Advanced Configuration

### Metadata File (`metadata.txt`)

Place a `metadata.txt` file in your directory to customize the RPM:

```
Name: mypackage
Version: 1.0
Release: 1
Summary: My custom package
License: MIT
Arch: noarch
Description: A custom RPM package created with dir2rpm.
Depends: bash
```

- All fields are optional; defaults are used if omitted.

### Maintenance Scripts

Add these optional scripts to your directory:

- `preinst` : Runs before installation.
- `postinst` : Runs after installation.
- `preun` : Runs before uninstallation.
- `postun` : Runs after uninstallation. Example:

```
# preinst
echo "Preparing to install..."
```

## Project Structure

The `dir2rpm/` directory in the repository contains:

- `usr/bin/dir2rpm.sh` : Core script for RPM creation.
- `usr/bin/dir2rpm_gui.py` : PyQt5 GUI frontend.
- `usr/share/applications/dir2rpm.desktop` : Desktop entry with multi-language support.
- `metadata.txt` : Metadata for building the `dir2rpm` RPM itself.

## License

`dir2rpm` is released under the MIT License. See [LICENSE](#) for details.

## Credits

- **Author:** Juan Madrid
- **Contributor:** Grok (xAI)
- **Thanks:** To the Fedora community for inspiration and testing.

