

dir2rpm Manual

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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 Sánchez contact@xanmian.com
- **Contributor**: Grok (xAI)
- **Thanks**: To the Fedora community for inspiration and testing.

Happy RPM building with `dir2rpm`!