Essae Label Printer Driver Installation Guide (ARM64)

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✅ **Version:** v2.0
Architecture: ARM64 (for Rockchip RK3568 board)
Project Folder: Essae_WSLPR_v2.0

1. Files Required

Ensure the following application files are compiled and placed in the appropriate folder:

File	Description
Essae_WSLPR_server_v2.0	ARM64 binary for label printing server
Essae_WSLPR_client_v2.0.py	Python GUI client
SQL_LFT_Files.db	SQLite3 database with label formats
config.json	Configuration file

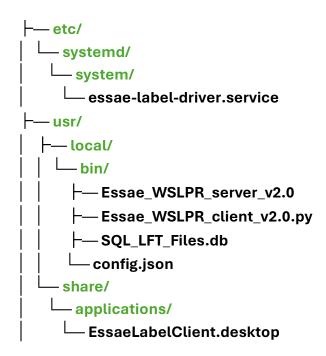These files will be installed into /usr/local/bin/ via the .deb package.

2. Directory Structure for .deb Package

Prepare the .deb package folder with the following structure:

essae-label-driver-arm64/
├── **DEBIAN/**
│   └── **control**

```
├── etc/
│   └── systemd/
│       └── system/
│           └── essae-label-driver.service
├── usr/
│   ├── local/
│   │   └── bin/
│   │       ├── Essae_WSLPR_server_v2.0
│   │       ├── Essae_WSLPR_client_v2.0.py
│   │       ├── SQL_LFT_Files.db
│   │       └── config.json
│   └── share/
│       └── applications/
│           └── EssaeLabelClient.desktop
```

3. control File Content

Location: DEBIAN/control

Package: essae-label-driver
Version: 2.0
Architecture: arm64
Maintainer: venkatesh m <venkatesh.muninagaraju@essae.com>
Depends: python3, python3-pyqt5, libsqlite3-0, libjson-c5
Description: Essae Label Printer Driver with GUI and user-space service.

4. Systemd Service File

Location: etc/systemd/system/essae-label-driver.service

[Unit]
Description=Essae Label Driver Service
After=network.target

```
[Service]
ExecStart=/usr/local/bin/Essae_WSLPR_server_v2.0
Restart=always
User=root
WorkingDirectory=/usr/local/bin
StandardOutput=journal
StandardError=journal

[Install]
WantedBy=multi-user.target
```

5. Desktop Shortcut

Location: usr/share/applications/EssaeLabelClient.desktop

```
[Desktop Entry]
Version=1.0
Name=Essae Label Printer GUI
Exec=python3 /usr/local/bin/Essae_WSLPR_client_v2.0.py
Icon=utilities-terminal
Terminal=false
Type=Application
Categories=Utility;
```

6. Build the .deb Package

Navigate to the main project folder Essae_WSLPR_v2.0 and run the following commands:

```
$ gcc -o Essae_WSLPR_server_v2.0 Essae_WSLPR_server_v2.0.c -ljson-c -lsqlite3 -lm
```

```
$ dpkg-deb --build essae-label-driver-arm64
```

Output:
 essae-label-driver-arm64.deb

7. Install on ARM64 Device (e.g., RK3568)

Transfer the .deb file to your ARM64 device, then install it:

$ **sudo apt install ./essae-label-driver-arm64.deb**

To uninstall:

$ **sudo apt remove essae-label-driver**

8. Enable and Start the Service

Run the following commands to enable and start the service:

$ **sudo systemctl daemon-reload**
$ **sudo systemctl enable essae-label-driver.service**
$ **sudo systemctl start essae-label-driver.service**
$ **sudo systemctl status essae-label-driver.service**

9. Launch the GUI

You can launch the GUI in one of two ways:

Option 1: From Terminal

$ **python3 /usr/local/bin/Essae_WSLPR_client_v2.0.py**

Option 2: From Application Menu

Navigate to:
 Applications > Utility > Essae Label Printer GUI