



## how to make the wifi\_stress.svg file apply to the binary file WiFiTestTool in the ubuntu system

Create a desktop launcher for WiFiTestTool and point its icon to wifi\_stress.svg. This makes the SVG show up in menus, dock, and launcher instead of the default binary icon.[\[1\]](#) [\[2\]](#)

### 1. Put files in suitable locations

Assume:

- Binary path: /opt/wifi/WiFiTestTool
- Icon path: /opt/wifi/icons/wifi\_stress.svg

Steps:

1. Create folders (if needed):

```
sudo mkdir -p /opt/wifi/icons
```

2. Copy files:

```
sudo cp WiFiTestTool /opt/wifi/
sudo cp wifi_stress.svg /opt/wifi/icons/
sudo chmod +x /opt/wifi/WiFiTestTool
```

### 2. Create a .desktop file

Create a launcher file so the desktop environment knows your app, its name, and its icon.[\[2\]](#) [\[1\]](#)

1. Create file:

```
sudo nano /usr/share/applications/wifitesttool.desktop
```

2. Put this content (adjust paths if different):

```
[Desktop Entry]
Type=Application
Name=WiFi Stress Tool
Comment=WiFi stress test utility
Exec=/opt/wifi/WiFiTestTool
Icon=/opt/wifi/icons/wifi_stress.svg
Terminal=false
Categories=Network;Utility;
```

3. Save, then update desktop database (optional but recommended):

```
sudo update-desktop-database
```

### 3. Make the launcher visible and trusted

Depending on desktop (GNOME, etc.), you may need to:

- Log out/in or run:

```
gio set /usr/share/applications/wifitesttool.desktop "metadata::trusted" yes
```

- Or copy to user applications:

```
mkdir -p ~/.local/share/applications  
cp /usr/share/applications/wifitesttool.desktop ~/.local/share/applications/
```

You should now see “WiFi Stress Tool” with the **wifi\_stress.svg** icon in:

- Application menu / launcher.
- Dock, once running.
- Desktop shortcut if you drag it out from the menu.[\[3\]](#) [\[4\]](#) [\[1\]](#)

### 4. Quick test

- Run from menu: search “WiFi Stress Tool”.
- Or run:

```
gtk-launch wifitesttool
```

- When it's running, confirm the dock/taskbar shows your SVG icon.[\[1\]](#) [\[2\]](#)

If WiFiTestTool is a terminal-only tool and you want a terminal to open, change Terminal=true in the .desktop file.

\*

## how to use pyinstaller to generate the binary file and make the wifi\_stress.svg as the icon of this bin file

Use PyInstaller's --icon option, but first convert `wifi_stress.svg` into a format PyInstaller and the OS actually use (PNG on Linux, ICO on Windows).[\[21\]](#) [\[22\]](#) [\[23\]](#)

## 1. Convert SVG to a suitable format

On **Linux**, PyInstaller can accept a PNG and the desktop environment will use that as the app icon.[\[23\]](#)

Example conversion with ImageMagick:

```
sudo apt install imagemagick
convert -background none -resize 256x256 wifi_stress.svg wifi_stress.png
```

On **Windows**, convert to ICO (if you ever target it):[\[24\]](#) [\[21\]](#)

```
convert -background none -resize 256x256 wifi_stress.svg wifi_stress.ico
```

## 2. Build the binary with PyInstaller

From the folder containing your main script, run for **Linux**:

```
pyinstaller --onefile --icon=wifi_stress.png main.py
```

For **Windows**:

```
pyinstaller --onefile --windowed --icon=wifi_stress.ico main.py
```

- `--onefile` produces a single binary (your “WiFiTestTool” equivalent).[\[25\]](#) [\[24\]](#)
- `--icon` embeds the icon resource into the executable on supported platforms or into the bundled app structure.[\[22\]](#) [\[21\]](#)

The generated binary will be in the `dist/` directory.

## 3. Use the icon in the desktop launcher (Linux)

Even though the binary has an icon, desktop environments typically rely on `.desktop` files and icon paths.[\[26\]](#)

Create or update your `.desktop` file to point at the PNG you generated:

```
[Desktop Entry]
Type=Application
Name=WiFi Stress Tool
Exec=/path/to/dist/main
Icon=/path/to/wifi_stress.png
Terminal=false
Categories=Network;Utility;
```

This ensures the **wifi\_stress** icon appears in the launcher, dock, and menus when your PyInstaller binary is used.[\[27\]](#) [\[26\]](#)

# I have a .spec

-- mode: python ; coding: utf-8 --

```
block_cipher = None

a = Analysis(
['wifi_test_newgui.py'],
pathex=[],
binaries=[],
datas=[
('technexion_logo103770.svg', '!'), # 只打包 Logo
],
hiddenimports=[
'PyQt5.QtCore',
'PyQt5.QtGui',
'PyQt5.QtWidgets',
'PyQt5.QtSvg',
'serial',
'serial.tools',
'serial.tools.list_ports',
],
hookspath=[],
hooksconfig={},
runtime_hooks=[],
excludes=[],
win_no_prefer_redirects=False,
win_private_assemblies=False,
cipher=block_cipher,
noarchive=False,
)

pyz = PYZ(a.pure, a.zipped_data, cipher=block_cipher)

exe = EXE(
pyz,
a.scripts,
a.binaries,
a.zipfiles,
a.datas,
[],
name='WiFiTestTool',
debug=False,
bootloader_ignore_signals=False,
strip=False,
upx=True,
```

```
upx_exclude=[],  
runtime_tmpdir=None,  
console=True,  
disable_windowed_traceback=False,  
argv_emulation=False,  
target_arch=None,  
codesign_identity=None,  
entitlements_file=None,  
)
```

how to modify it to auto generate the binary with icon

Add an `icon=` argument to the EXE call and (on Linux) point it to a PNG converted from `wifi_stress.svg`. The `.spec` file then always builds the binary with that icon.[\[42\]](#) [\[43\]](#) [\[44\]](#)

## 1. Prepare the icon file

PyInstaller's `icon=` expects an ICO on Windows, and typically a PNG on Linux.[\[45\]](#) [\[42\]](#)  
Convert your SVG once (Linux example):

```
sudo apt install imagemagick  
convert -background none -resize 256x256 wifi_stress.svg wifi_stress.png
```

Put `wifi_stress.png` next to your `.spec` file or in a known path.

## 2. Modify your `.spec` file

Update your EXE definition to include `icon='wifi_stress.png'` (adjust path as needed).[\[46\]](#) [\[42\]](#)

```
# -*- mode: python ; coding: utf-8 -*-  
  
block_cipher = None  
  
a = Analysis(  
    ['wifi_test_newgui.py'],  
    pathex=[],  
    binaries=[],  
    datas=[  
        ('technexion_logo103770.svg', '.'), # 只打包 Logo  
    ],  
    hiddenimports=[  
        'PyQt5.QtCore',  
        'PyQt5.QtGui',  
        'PyQt5.QtWidgets',  
        'PyQt5.QtSvg',  
        'serial',  
        'serial.tools',  
        'serial.tools.list_ports',  
    ],  
    hookspath=[],  
    hooksconfig={},  
    runtime_hooks=[],
```

```

        excludes=[],
        win_no_prefer_redirects=False,
        win_private_assemblies=False,
        cipher=block_cipher,
        noarchive=False,
    )

pyz = PYZ(a.pure, a.zipped_data, cipher=block_cipher)

exe = EXE(
    pyz,
    a.scripts,
    a.binaries,
    a.zipfiles,
    a.datas,
    [],
    name='WiFiTestTool',
    debug=False,
    bootloader_ignore_signals=False,
    strip=False,
    upx=True,
    upx_exclude=[],
    runtime_tmpdir=None,
    console=True,
    disable_windowed_traceback=False,
    argv_emulation=False,
    target_arch=None,
    codesign_identity=None,
    entitlements_file=None,
    icon='wifi_stress.png',      # <--- add this line
)

```

Then rebuild using the spec:

```
pyinstaller wifi_test_newgui.spec
```

### 3. Show icon in desktop/launcher (Linux)

Even with `icon=` set, many Linux desktops use the `.desktop` file's `Icon=` field.<sup>[47]</sup> <sup>[45]</sup>

- Copy `wifi_stress.png` to a stable path (e.g. `/opt/wifi/icons/`).
- Set `Icon=/opt/wifi/icons/wifi_stress.png` in your `.desktop` file for `WiFiTestTool`.

\*\*

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