Save Legacy Printers under Windows with WSL and Printer Applications

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CANONICAL ubuntu

Motivation

- **First, why not simply using Linux right away?**
  - You do not succeed to **convince your family or friends** to switch to Linux
  - You are **developer** and need to boot into Windows sometimes (WSL, Azure, …)
  - You need **this nasty app** which (unfortunately) is not available under Linux
- You got a shiny Windows update … **I CANNOT PRINT ANY MORE!!!**
  - Your printer is **too old!**
  - Microsoft and/or the manufacturer have **abandoned** it.
  - **HELP!!!**
- Under Linux you have drivers for **REALLY OLD** printers
  - In free software we **do not drop** old drivers
  - So your printer will **most probably work under Linux**
  - But was there not this little thingie …

WSL

- Yes, **Windows Subsystem for Linux**, run most **Linux Apps under Windows!**
- So the **Snap Store is open for you**, and what do we have there …
- … OpenPrinting … … **Printer Applications!**
- And Printer Applications are the **new format of printer drivers**
- I have already **converted all free drivers** (which come with Debian, ~10000 models) into **4 Printer Applications**. And there is also Michael Sweet's **LPrint** for label printers and **hp-printer-app** for HP lasers.
- So you (or better: your printer) are **saved!!!**

Let's do it

- **Prerequisites**
  - **It is easy** (therefore we skipped offering a workshop for this)
  - **No compiling required!**
  - You need **Windows 11** and current WSL
  - You need a printer which **does NOT work under Windows** but **works under Linux**

Check your printer

- **Connect your printer** and turn it on, either use **USB** or **network** (network preferred, it is easier)
- Check whether your printer **actually does not work** under Windows via "Settings" > "Bluetooth & devices" > "Printers & scanners", If it works, you do not need to continue.
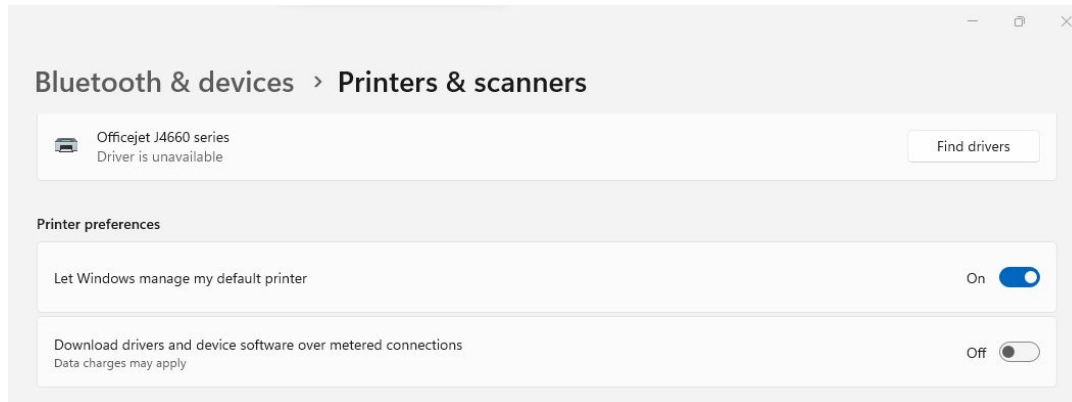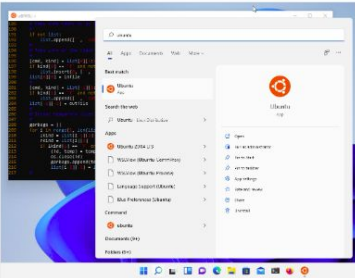
Install the Ubuntu Application (WSL)

- Install the **Ubuntu Application** from the Windows Store
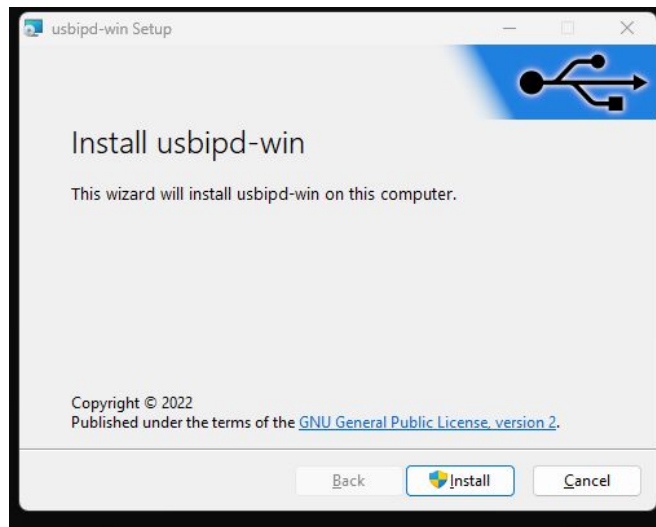
Install the USB bridge if needed

- If your printer is **connected by USB**, install the (free software) **USB bridge USB IPD**, to access USB devices from within WSL. Also install the Linux end of it in WSL

  https://github.com/dorssel/usbipd-win

Install avahi-daemon and the Printer Application

Do the needed installations to **Ubuntu under WSL**:

- The DNS-SD support, avahi-daemon, is not installed by default in Ubuntu under WSL. So we need to install it:
  ```
  sudo apt update
  sudo apt install avahi-daemon linux-tools-virtual hwdata
  ```

- Install the Printer Application from the Snap Store (use the one for your printer):
  ```
  sudo snap install hplip-printer-app
  ```
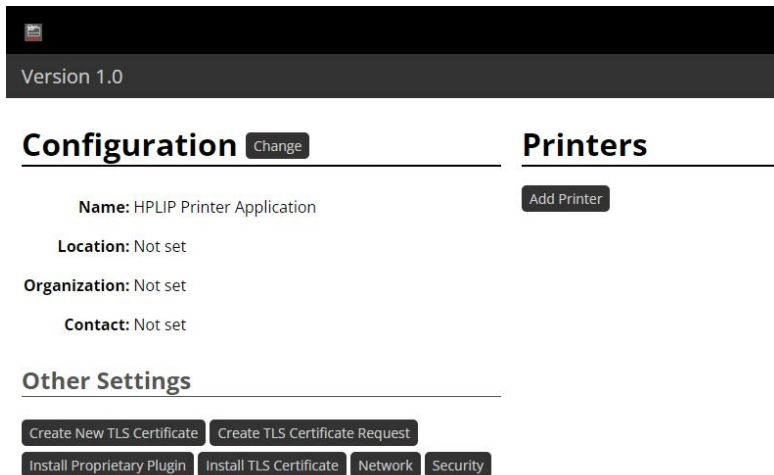
- Check whether the daemons are running:
  ```
  ps aux | grep -E 'avahi|hplip'
  ```

Set up the printer in the Printer Application

- Use the web admin interface (usually https://localhost:8000/) of the Printer Application to **set up your printer** ("Add Printer"):
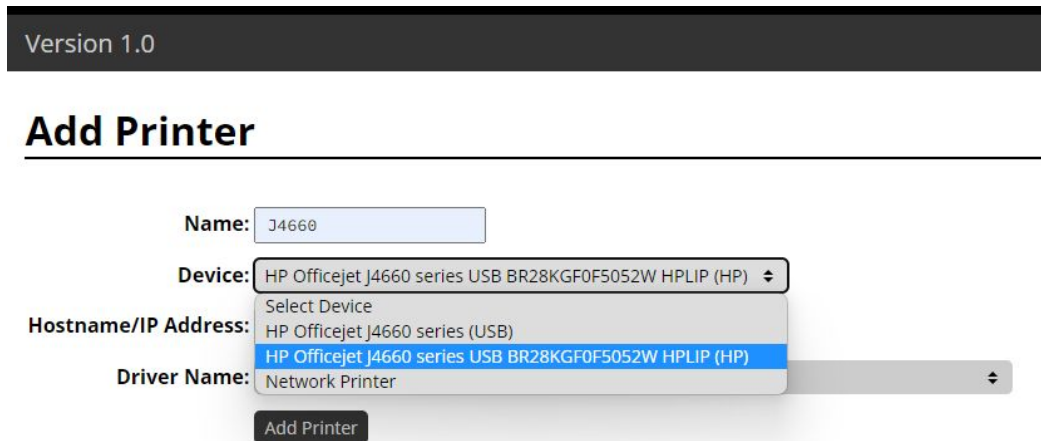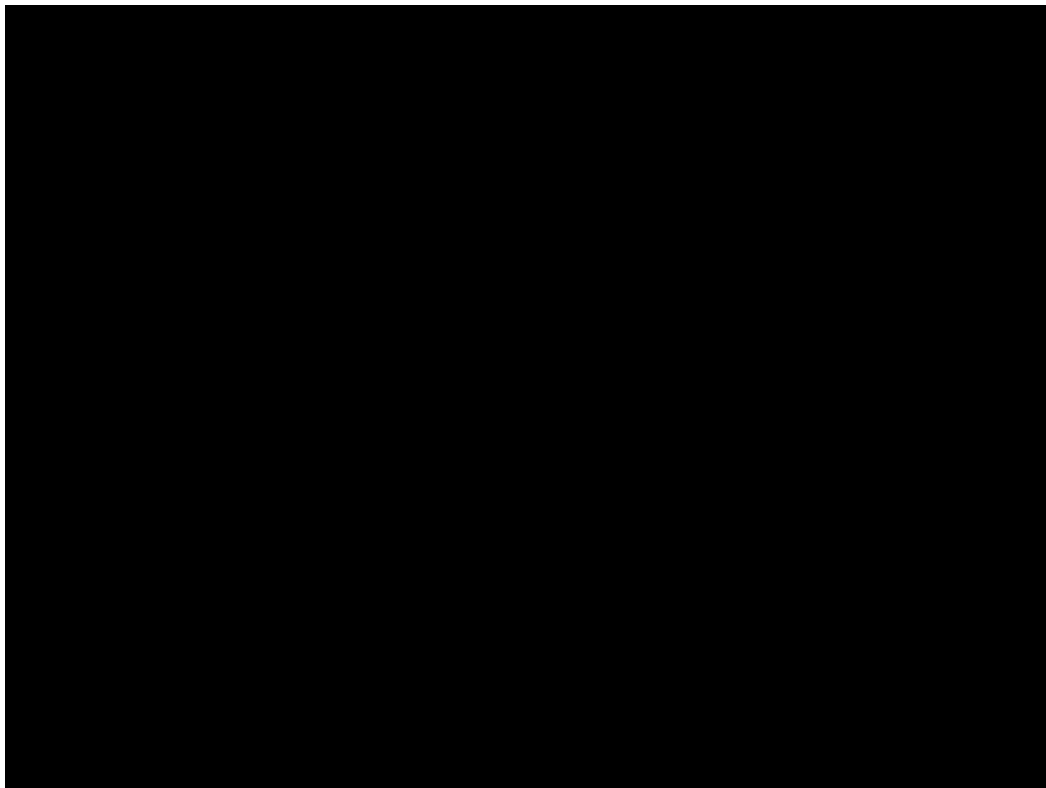
And set up the printer under Windows

- Now go to the printer setup tool of Windows ("Settings" > "Bluetooth devices" > "Printers & scanners") again and set up the **print queue for Windows**:
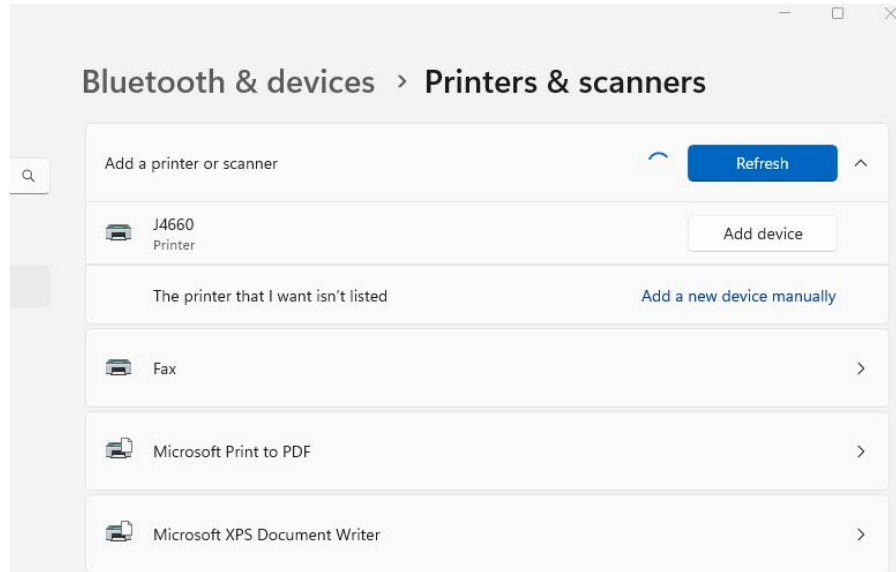
And you have made it!!

Our HOWTO on OpenPrinting …

For further details, see our HOWTO::

https://openprinting.github.io/wsl-printer-app/

Thanks a lot to

- **Carlos Nihelton** for creating the HOWTO
- **Lucy Llewellyn** and the **WSL Squad** at Canonical for their great work on WSL and Snap support in it

By the way …

Windows Protected Print

- **Microsoft wants to go all-IPP**, too, as we under Linux do
- **No support of classic printer drivers** any more
- **For security**, printer drivers are closed-source 3rd-party code, deep in system or even kernel …
- **Our method would save users here, too**

https://openprinting.github.io/OpenPrinting-News-December-2023/#new-architecture-under-windows