



ARGOX RPi Printer Driver install/uninstall Instruction

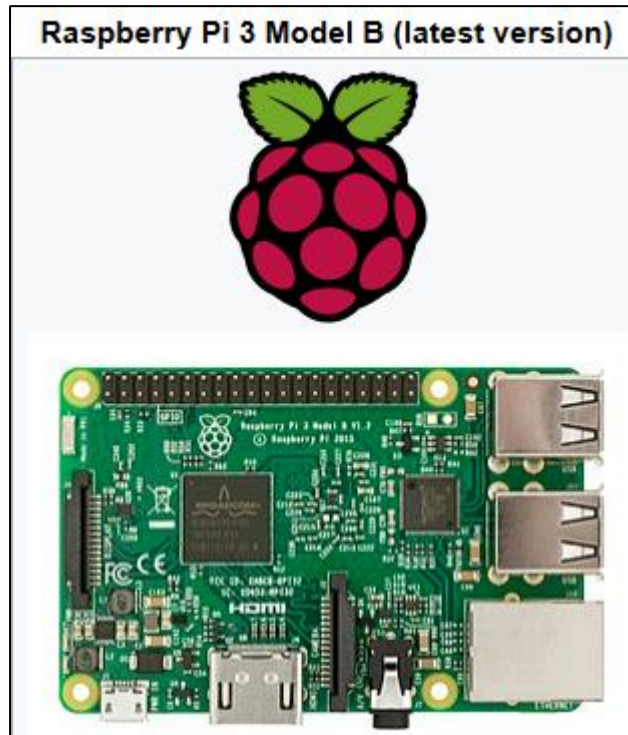
Version: 1.00

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1. Overview

The Raspberry Pi is a series of small single-board computers developed in the United Kingdom by the Raspberry Pi Foundation to promote the teaching of basic computer science in schools and in developing countries. The original model became far more popular than anticipated, selling outside of its target market for uses such as robotics. See [Figure 1.A] for Raspberry Pi 3 Model B.



[Figure 1.A]

According to the Raspberry Pi Foundation, over 5 million Raspberry Pis have been sold before February 2015, making it the best-selling British computer. By November 2016 they had sold 11 million units, reaching 12.5m in March 2017, making it the third best-selling "general purpose computer" ever.

The above content is captured from Wiki. Please refer to Wiki in the following URL:

https://en.wikipedia.org/wiki/Raspberry_Pi

ARGOX RPi printer driver is based on Common Unix Printing System (CUPS) for Linux on Raspberry Pi (RPi). All the device communications are handled by CUPS (backend). The raster filter converts the CUPS raster graphic into PPLA, PPLB or PPLZ which the printer can understand. For example, if user prints a label, the raster filter converts the graphic into PPLA, PPLB or PPLZ command which will be sent to the printer together with the printer options.

1.1. System Requirement

The minimum system requirements are listed as below:

- Raspberry Pi 2, Raspberry Pi 3 or Raspberry Pi 4 (ARM Base)
(Refer to the URL: <https://www.raspberrypi.org/>)
- Supported Linux OSs for RPi (It is recommended to use the new Operating System Images):
 - Raspbian Stretch with desktop
(Refer to the URL: <https://www.raspberrypi.org/downloads/raspbian/>)
 - Ubuntu MATE for the Raspberry Pi 2 and Raspberry Pi 3
(Refer to the URL: <https://ubuntu-mate.org/raspberry-pi/>)
 - Ubuntu for Raspberry Pi
(Refer to the URL: <https://ubuntu.com/download/raspberry-pi>)
- At least one supported model of ARGOX label printer

2. Install CUPS

CUPS may not be installed in Raspbian Linux by default. When CUPS is not installed in Raspbian Linux, please follow the steps bellow to install CUPS:

A. Use sudo with the apt command and give the packages to install as the first parameter.

A complete CUPS install has many package dependencies, but they may all be specified on the same command line. Enter the following at a terminal prompt to install CUPS:

```
sudo apt-get install cups
```

Upon authenticating with your user password, the packages should be downloaded and installed without error. Upon the conclusion of installation, the CUPS server will be started automatically. When prompted to continue, type Y and press enter. See [Figure 2.A].

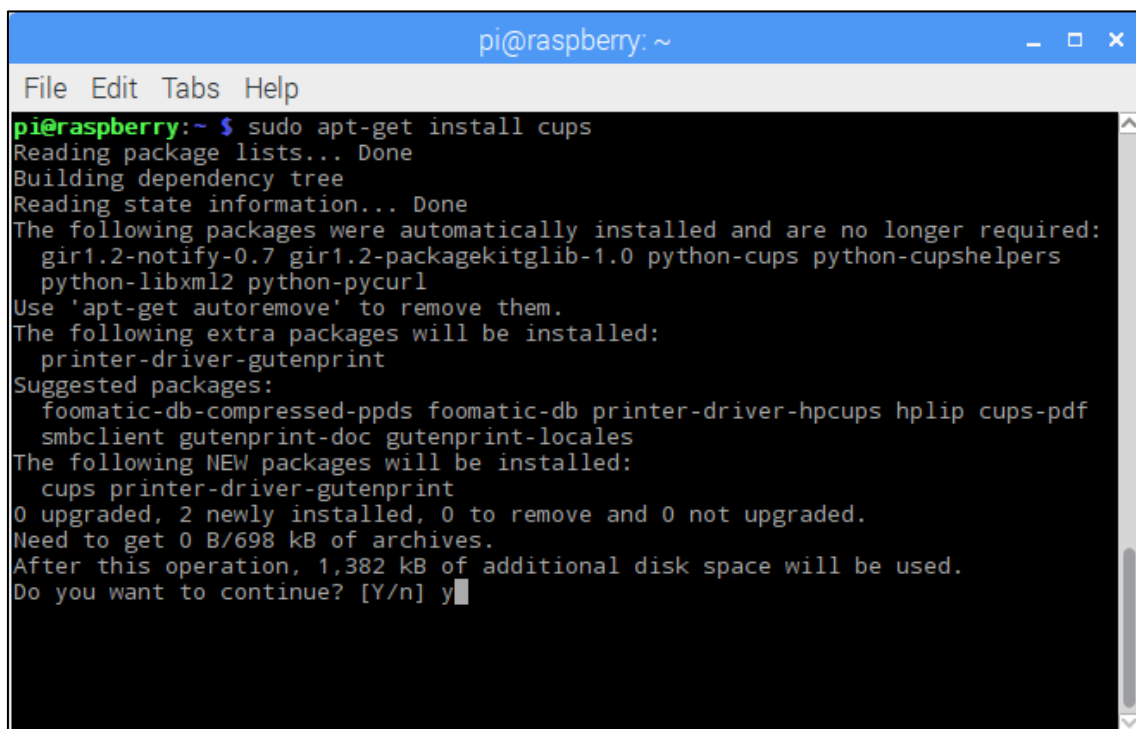
B. Once the base installation is complete, we need to make a few small administrative changes.

The first order of business is to add ourselves to the usergroup that has access to the printers/printer queue. The usergroup created by CUPS is “lpadmin”. The default Rasbian user (and the user we’re logged into) is “pi” (adjust the following command accordingly if you want a different user to have access to the printer).

At the terminal enter the following command:

```
sudo usermod -a -G lpadmin pi
```

For the curious, the “-a” switch allows us to add an existing user (pi) to an existing group (lpadmin), specified by the “-G” switch.



```
pi@raspberrypi: ~  
File Edit Tabs Help  
pi@raspberrypi:~ $ sudo apt-get install cups  
Reading package lists... Done  
Building dependency tree  
Reading state information... Done  
The following packages were automatically installed and are no longer required:  
  gir1.2-notify-0.7 gir1.2-packagekitglib-1.0 python-cups python-cupshelpers  
  python-libxml2 python-pycurl  
Use 'apt-get autoremove' to remove them.  
The following extra packages will be installed:  
  printer-driver-gutenprint  
Suggested packages:  
  foomatic-db-compressed-ppds foomatic-db printer-driver-hpcups hplip cups-pdf  
  smbclient gutenprint-doc gutenprint-locales  
The following NEW packages will be installed:  
  cups printer-driver-gutenprint  
0 upgraded, 2 newly installed, 0 to remove and 0 not upgraded.  
Need to get 0 B/698 kB of archives.  
After this operation, 1,382 kB of additional disk space will be used.  
Do you want to continue? [Y/n] y
```

[Figure 2.A]

3. Install / Uninstall Printer Driver

3.1. Install Printer Driver

To install driver, please extract the driver package to the temporarily folder, for example: LinuxDriver.

Then switch into the LinuxDriver folder and input the following command line in terminal window.

```
$ sudo bash ./install
```

3.2. Uninstall Printer Driver

To uninstall driver, please switch into the temporarily folder you created when you install the driver and input the following command line in terminal window.

```
$ sudo bash ./uninstall
```

If the temporarily folder does not exist, you can extract the driver package to the temporarily folder, for example: LinuxDriver.

Then switch into the LinuxDriver folder and input the following command line in terminal window.

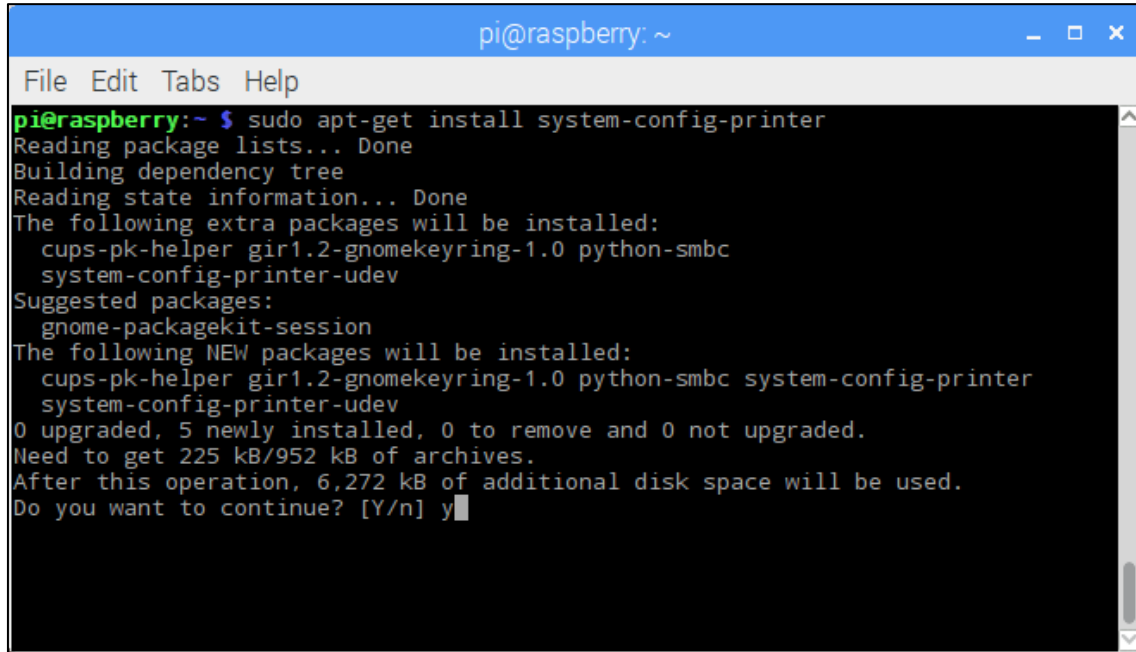
```
$ sudo bash ./uninstall
```

4. Add Printer

To add printer easily with "Print Settings", please input the following command line in terminal:

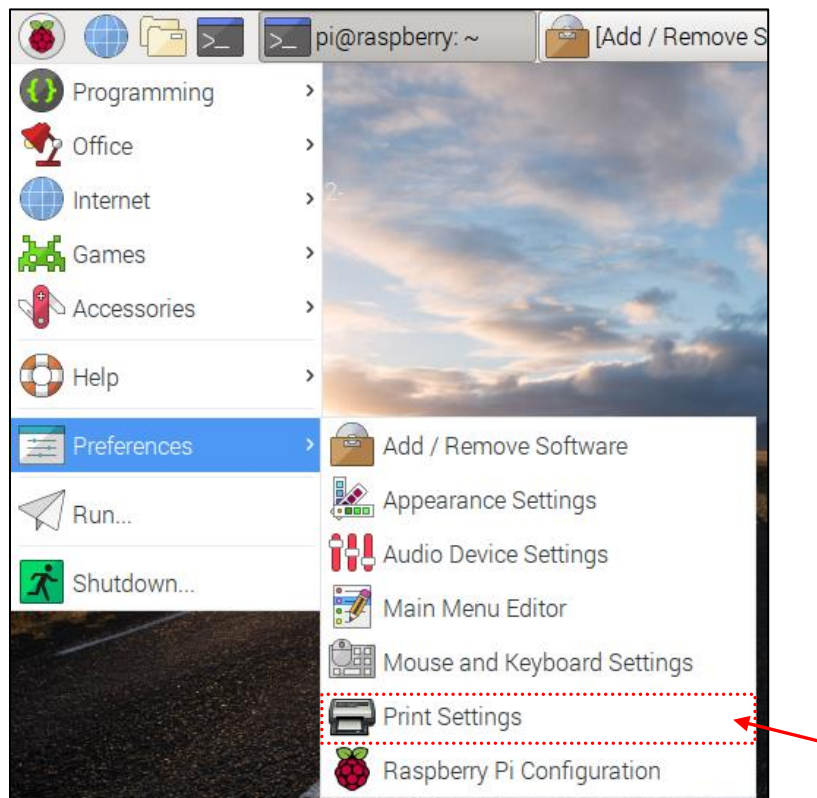
```
sudo apt-get install system-config-printer
```

When prompted to continue, type Y and press enter. See [Figure 4.A]. After the installation is finished, we can see "Print Settings" in Preferences menu. See [Figure 4.B].

A terminal window titled 'pi@raspberrypi: ~' showing the command 'sudo apt-get install system-config-printer' being executed. The output shows the package lists being read, the dependency tree being built, and the state information being read. It lists extra packages to be installed (cups-pk-helper, gir1.2-gnomekeyring-1.0, python-smbc, system-config-printer-udev) and suggested packages (gnome-packagekit-session). It then lists the new packages to be installed (cups-pk-helper, gir1.2-gnomekeyring-1.0, python-smbc, system-config-printer, system-config-printer-udev) and shows the disk space requirements. The prompt 'Do you want to continue? [Y/n] y' is shown with 'y' entered.

```
pi@raspberrypi: ~  
File Edit Tabs Help  
pi@raspberrypi:~ $ sudo apt-get install system-config-printer  
Reading package lists... Done  
Building dependency tree  
Reading state information... Done  
The following extra packages will be installed:  
  cups-pk-helper gir1.2-gnomekeyring-1.0 python-smbc  
  system-config-printer-udev  
Suggested packages:  
  gnome-packagekit-session  
The following NEW packages will be installed:  
  cups-pk-helper gir1.2-gnomekeyring-1.0 python-smbc system-config-printer  
  system-config-printer-udev  
0 upgraded, 5 newly installed, 0 to remove and 0 not upgraded.  
Need to get 225 kB/952 kB of archives.  
After this operation, 6,272 kB of additional disk space will be used.  
Do you want to continue? [Y/n] y
```

[Figure 4.A]

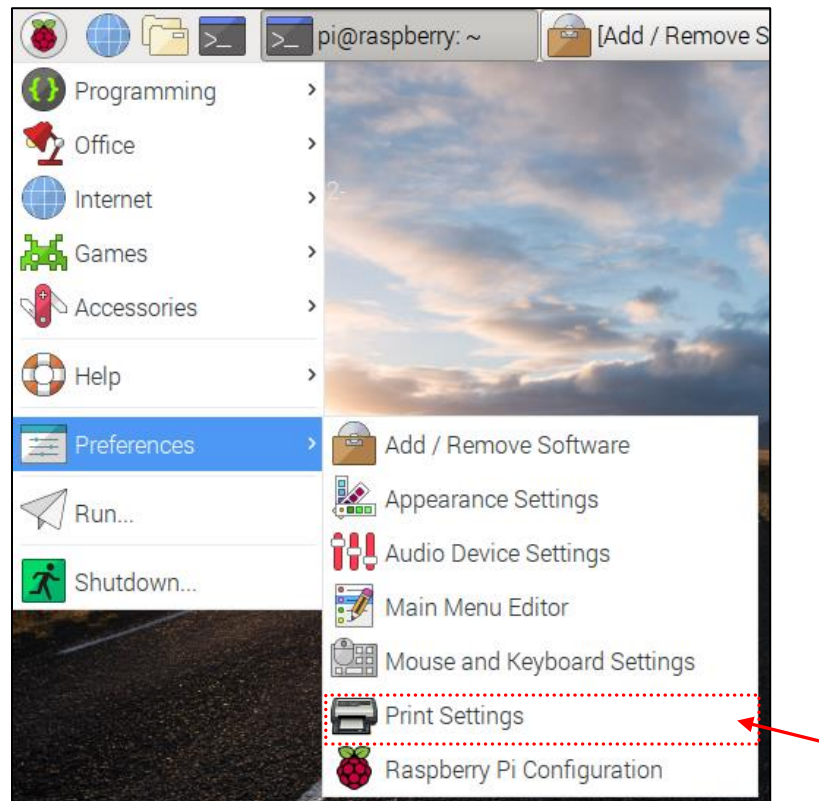


[Figure 4.B]

4.1. Add Printer via USB Port

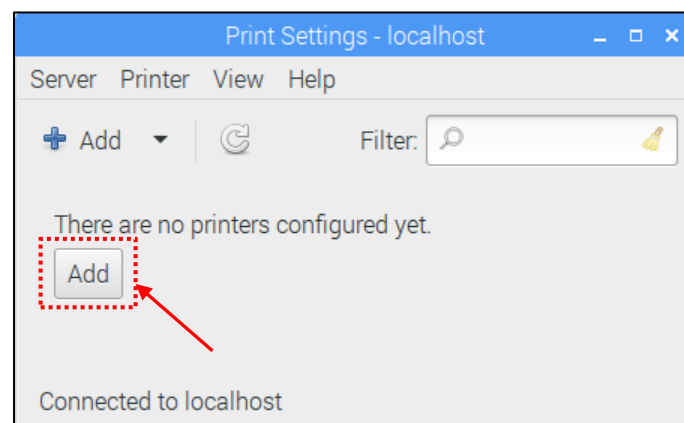
The procedures for adding printer in Raspbian via USB port are as following. To add printer in Ubuntu MATE Linux, please check the Ubuntu web site.

- A. Connect the printer with USB cable to PC and make sure the printer is powered on and in Ready status.
- B. Click "Print Settings" under "Preferences" menu (See [Figure 4.1.A]) to open the "Print Settings" dialog. See [Figure 4.1.B].

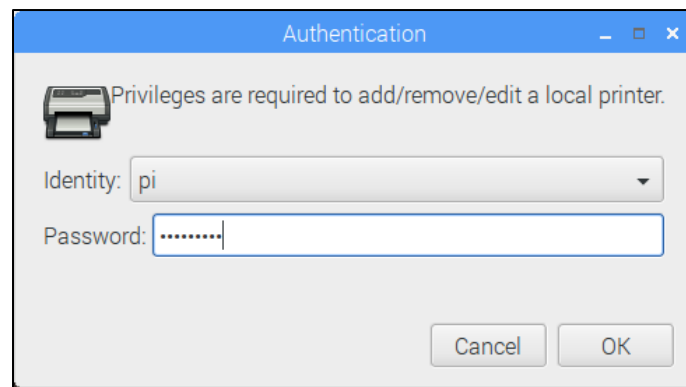


[Figure 4.1.A]

- C. In "Print Settings" dialog, click "Add" button to open "New Printer" dialog. See [Figure 4.1.B]. After "Add" button is clicked, an "Authentication" dialog will be displayed. See [Figure 4.1.C]. Input the default user name to "pi" and the default password to "raspberrypi" then click "OK" button to continue.

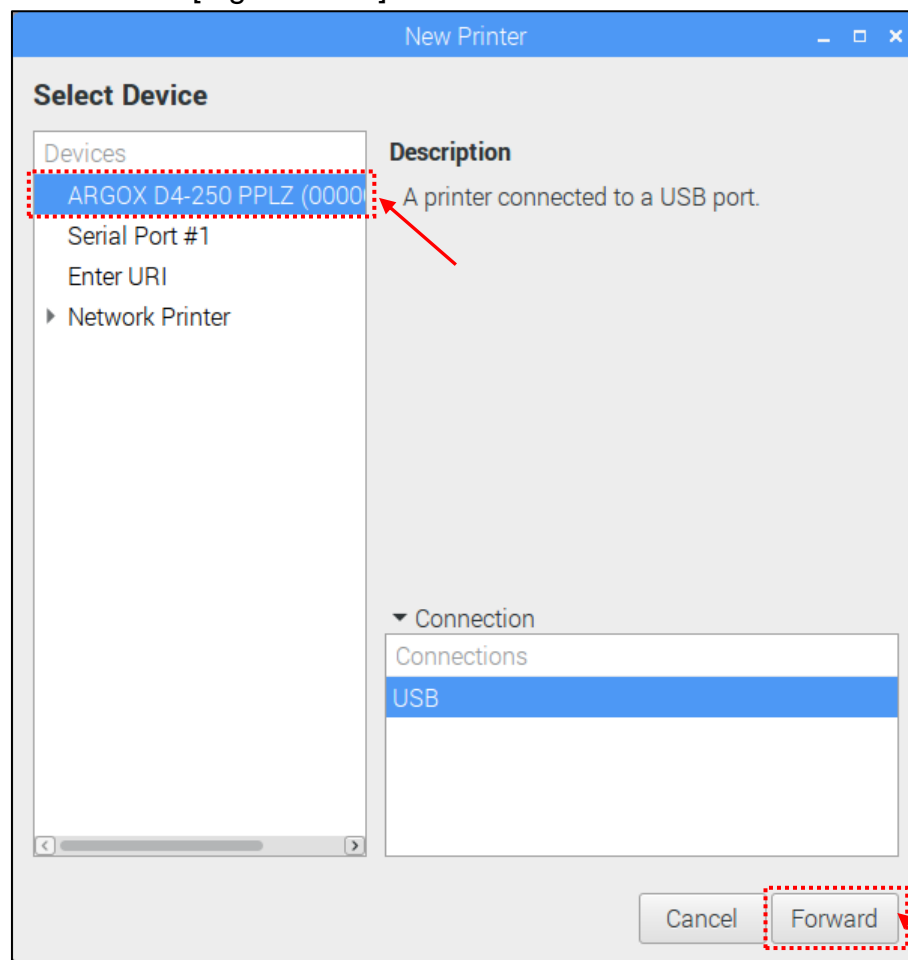


[Figure 4.1.B]



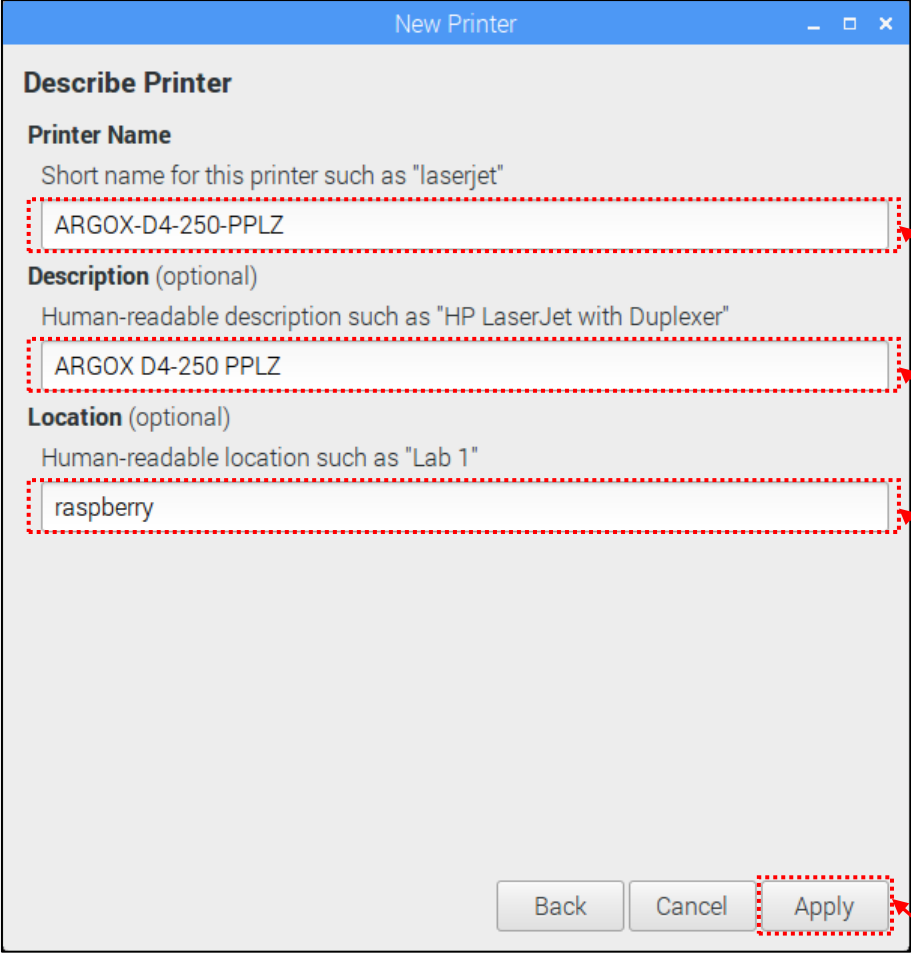
[Figure 4.1.C]

D. In "New Printer" dialog, select the printer name of the connected printer under "Devices" list then click "Forward" button. See [Figure 4.1.D].



[Figure 4.1.D]

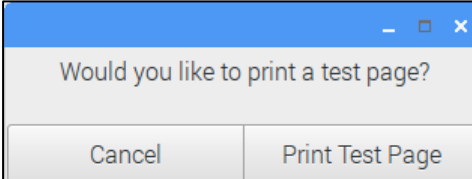
E. In "Describe Printer" dialog, we can input the printer name, description and location of the printer. Click "Apply" button to go the next step. See [Figure 4.1.E].



The screenshot shows a window titled "New Printer" with a sub-dialog titled "Describe Printer". The dialog contains three text input fields, each with a placeholder text and a red dashed border. The first field is labeled "Printer Name" with the placeholder "Short name for this printer such as 'laserjet'" and contains the text "ARGOX-D4-250-PPLZ". The second field is labeled "Description (optional)" with the placeholder "Human-readable description such as 'HP LaserJet with Duplexer'" and contains the text "ARGOX D4-250 PPLZ". The third field is labeled "Location (optional)" with the placeholder "Human-readable location such as 'Lab 1'" and contains the text "raspberry". At the bottom right of the dialog are three buttons: "Back", "Cancel", and "Apply". The "Apply" button is highlighted with a red dashed border. Red arrows point to the right side of each input field and the "Apply" button.

[Figure 4.1.E]

F. After a while, the print test page confirmation dialog will be displayed. See [Figure 4.1.F]. We can click "Cancel" button to cancel the print test page process; we also can click "Print Test Page" button to print a test page.

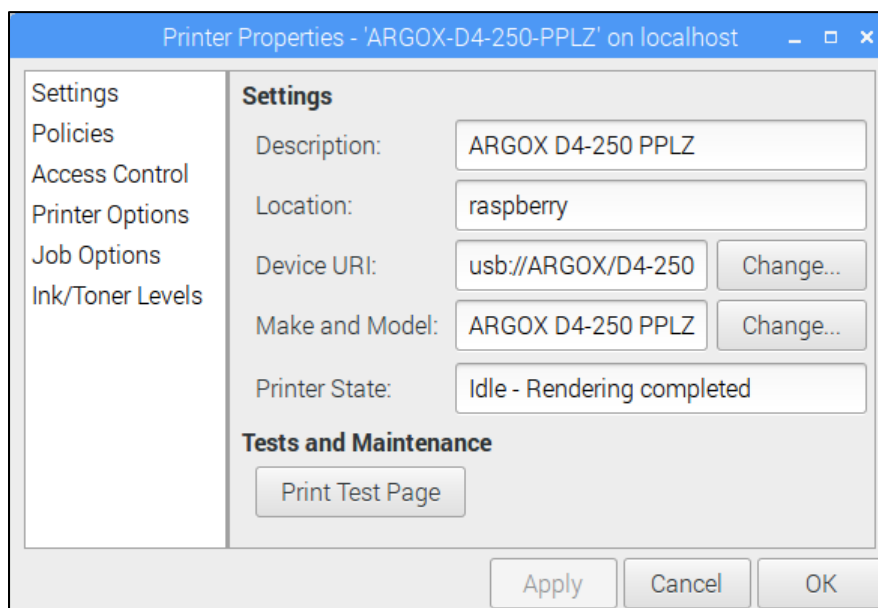


The screenshot shows a small dialog box with a blue title bar. The text inside the dialog asks "Would you like to print a test page?". At the bottom, there are two buttons: "Cancel" and "Print Test Page".

[Figure 4.1.F]

G. In "Printer Properties" dialog, we can change the settings of the printer driver, we also can view the printer status and print a test page. See [Figure 4.1.G].

Click "OK" button in "Printer Properties" dialog to finish the add printer procedure.

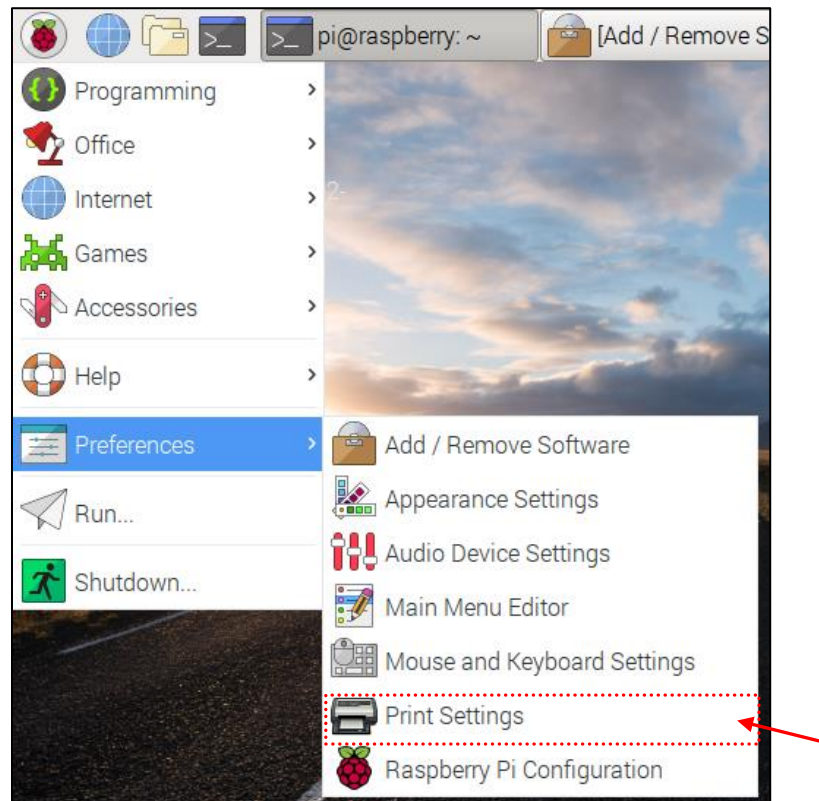


[Figure 4.1.G]

5.2. Add Printer via Network Port

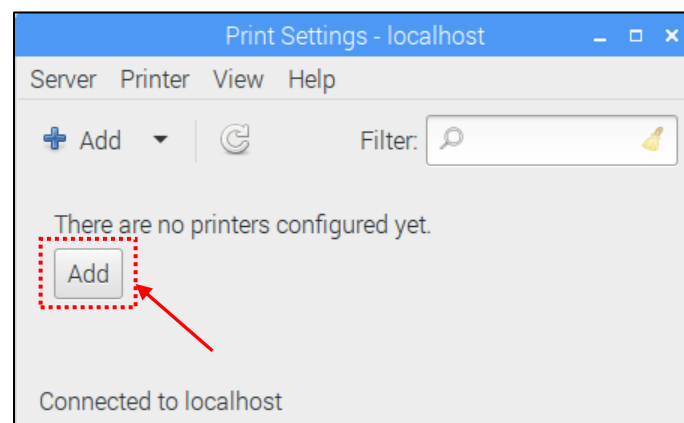
The procedures for installing printer in Raspbian via network port are as following. To add printer in Ubuntu MATE Linux, please check the Ubuntu web site.

- A. Connect the printer with network cable to PC and make sure the printer is powered on and in Ready status.
- B. Click "Print Settings" under "Preferences" menu (See [Figure 4.2.A]) to open the "Print Settings" dialog. See [Figure 4.2.B].

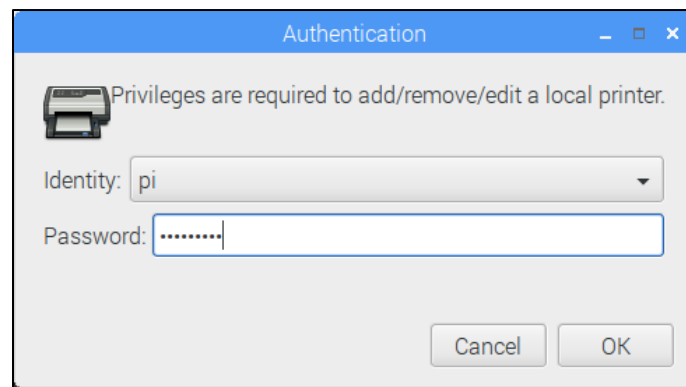


[Figure 4.2.A]

- C. In "Print Settings" dialog, click "Add" button to open "New Printer" dialog. See [Figure 4.2.B]. After "Add" button is clicked, an "Authentication" dialog will be displayed. See [Figure 4.2.C]. Input the default user name to "pi" and the default password to "raspberrypi" then click "OK" button to continue.

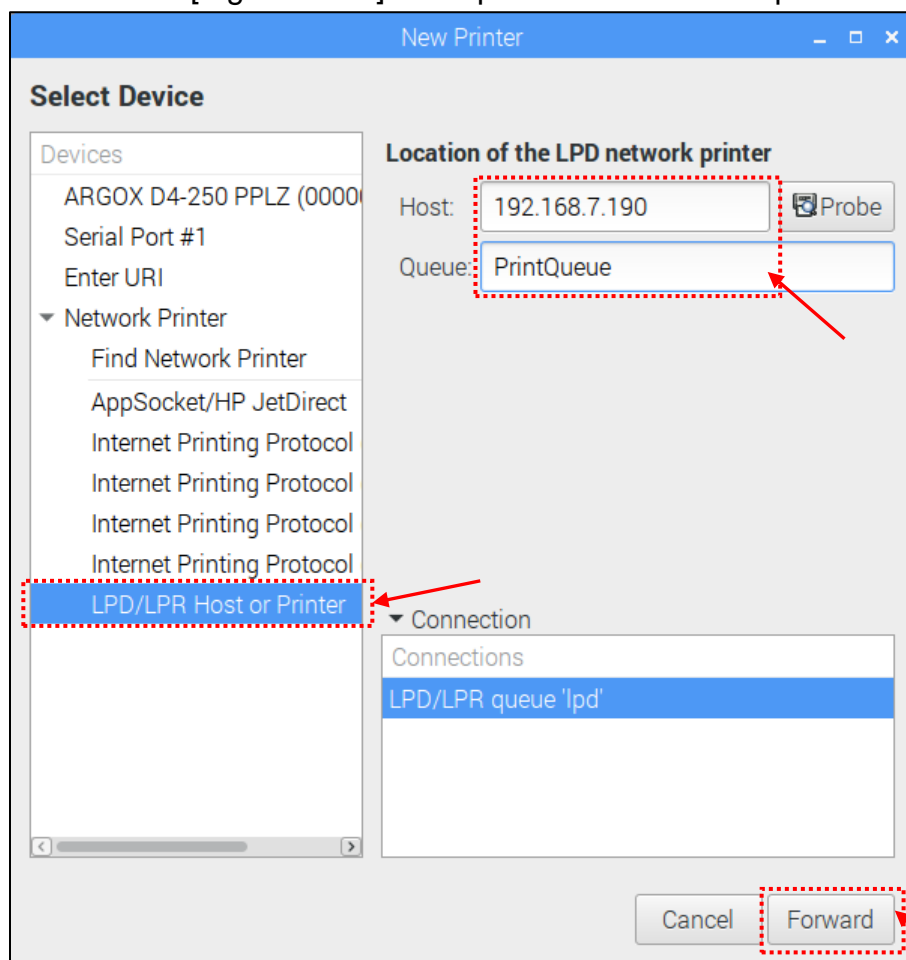


[Figure 4.2.B]



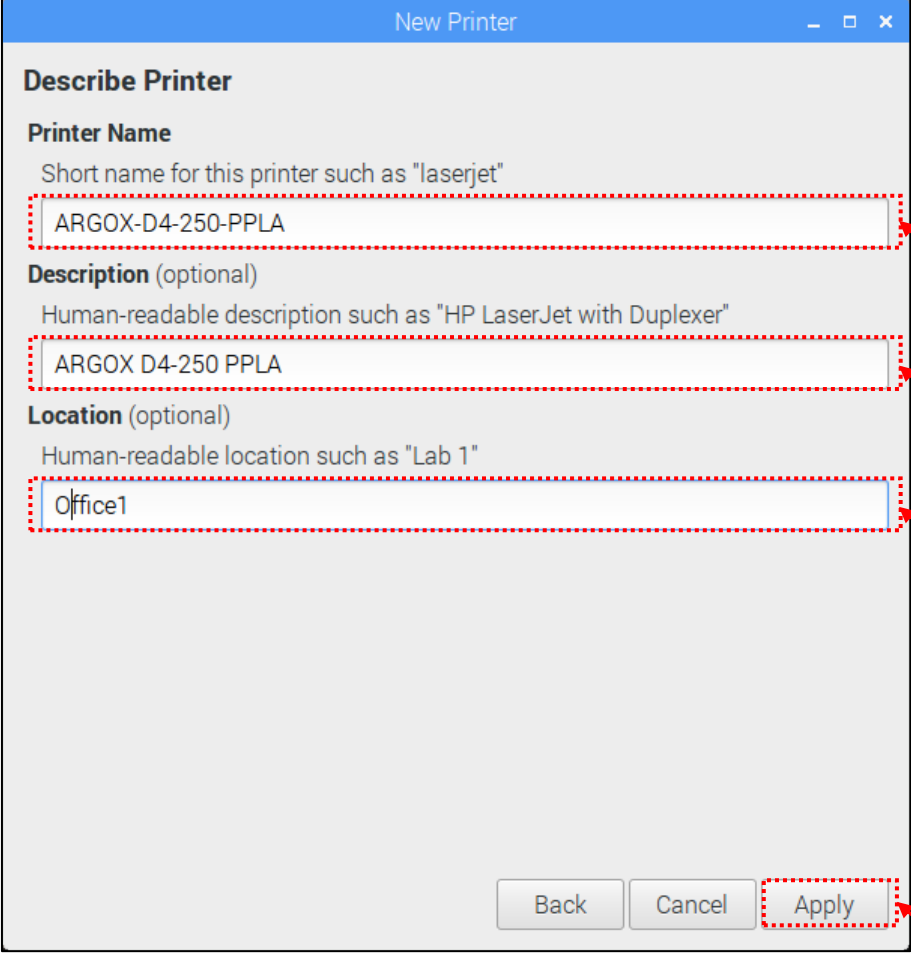
[Figure 4.2.C]

E. In "New Printer" dialog, select "LPD/LPR Host or Printer" in "Select Device" field. Input printer's IP address in Host field and add queue name in "Location of the LPD network printer" field and click "Forward" button. See [Figure 4.2.D]. The queue name can be specified by user.



[Figure 4.2.D]

H. In "Describe Printer" dialog, we can input the printer name, description and location of the printer. Click "Apply" button to go the next step. See [Figure 4.2.E].



Describe Printer

Printer Name
Short name for this printer such as "laserjet"
ARGOX-D4-250-PPLA

Description (optional)
Human-readable description such as "HP LaserJet with Duplexer"
ARGOX D4-250 PPLA

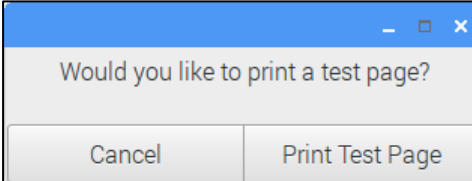
Location (optional)
Human-readable location such as "Lab 1"
Office1

Back Cancel Apply

[Figure 4.2.E]

I. After a while, the print test page confirmation dialog will be displayed. See [Figure 4.2.F].

We click "Cancel" button to cancel the print test page process; we also can click "Print Test Page" button to print a test page.



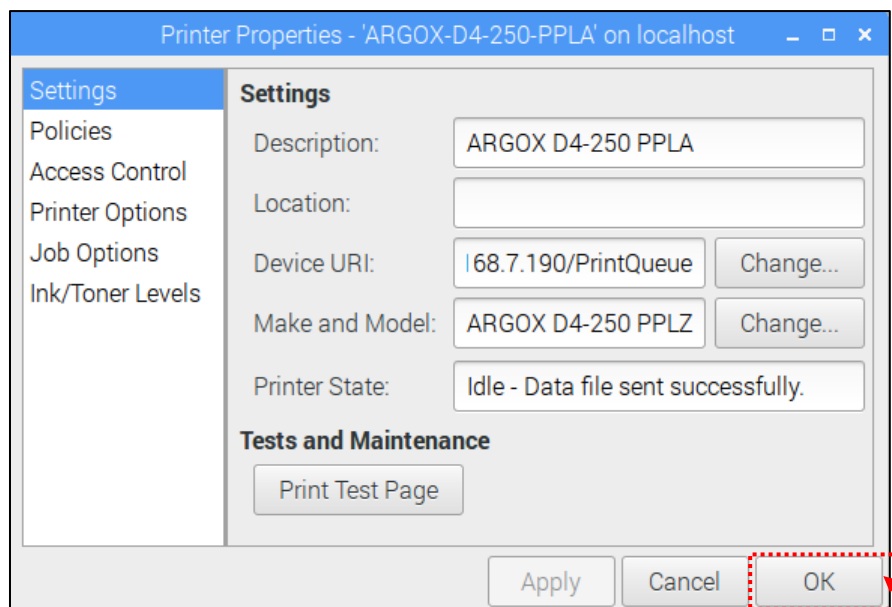
Would you like to print a test page?

Cancel Print Test Page

[Figure 4.2.F]

J. In Printer Properties dialog, we can change the settings of the printer driver, we also can view the printer status and print a test page. See [Figure 4.2.G].

Click "OK" button in Printer Properties dialog to finish the add printer procedure.



[Figure 4.2.G]