



ZEBRA ZXP Series 3™



Installation Guide

Linux Printer Driver

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Introduction

This manual describes installing the Linux printer driver on the following operating systems:

- Ubuntu 12.04 or later (32- or 64-bit)
- Red Hat Enterprise Linux (RHEL) 6.5 or later (32- or 64-bit)

This procedure supports the following Zebra card printers:

- ZXP Series 1
- ZXP Series 3



Important • To ensure a successful driver installation, follow the integrated Linux Driver install wizard. Although the Zebra ZXP Card printer driver is based on the CUPS driver standard, it has critical modifications and additions to correctly support and print to a Card Printer.

Do not attempt to manually install the driver as this will not install the unique Zebra CUPS back-end driver filters correctly, and will likely result in printing errors.

For support or product questions please contact your Zebra Reseller, Zebra Technical Support, or email CardLinux@zebra.com.



Verifying the Linux Environment

To verify that you have a supported Ubuntu or RHEL Linux OS installation, open a terminal prompt and type the following command:

- In Ubuntu:

```
cat /etc/lsb-release
```

- In RHEL

```
cat /etc/redhat-release
```

To verify that you have a 32- or 64-bit Linux OS, open the terminal window and enter the following command:

- In Ubuntu or RHEL:

```
uname -m
```

The following text string will be returned:

- For a 32-bit OS:

```
i386 or i686
```

- For a 64-bit OS:

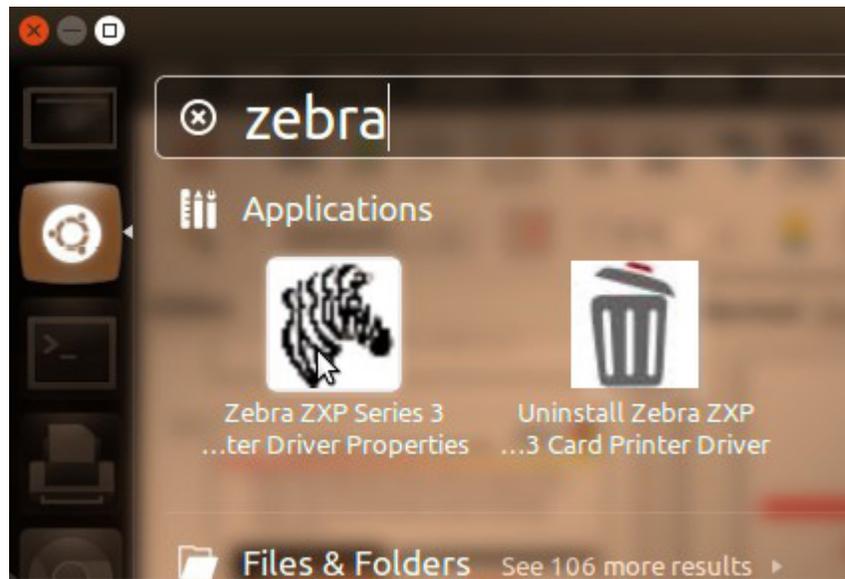
```
X86_64
```

To verify that you have the Zebra ZXP Series 3 driver installed:

- Ubuntu :

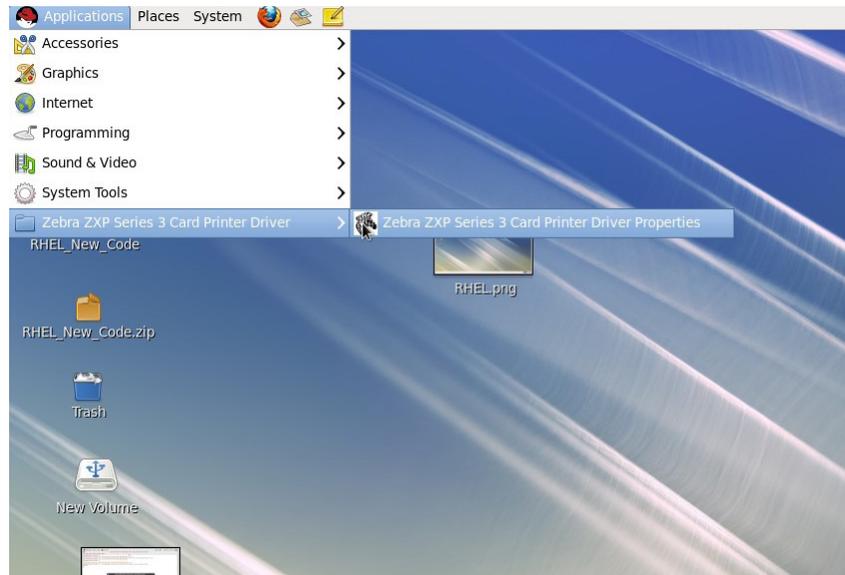
Go to the Wubi dashboard and type **zebra**; if it displays **Zebra ZXP Series 3 Printer Properties** and **Uninstall ZXP Series 3 Printer Driver** applications then

the driver is already installed.



- RHEL:

Go to Applications, if you see the **Zebra ZXP Series 3 Card Printer Driver > Zebra ZXP Series 3 Printer Driver Properties** menu, the driver is already installed.



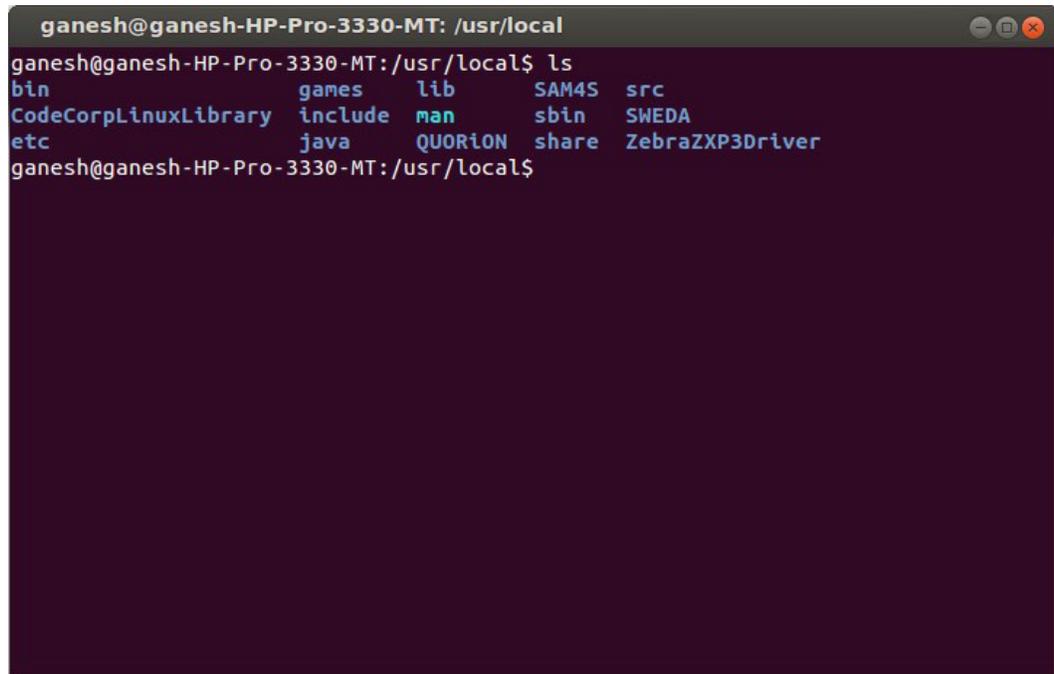
To verify that you have installed Zebra ZXP Series 3 driver installed using the terminal window:

- Open a terminal window and enter the following command:

```
#cd /usr/local
```

```
# ls
```

If the **ZebraZXP3Driver** folder is displayed, the driver is already installed .



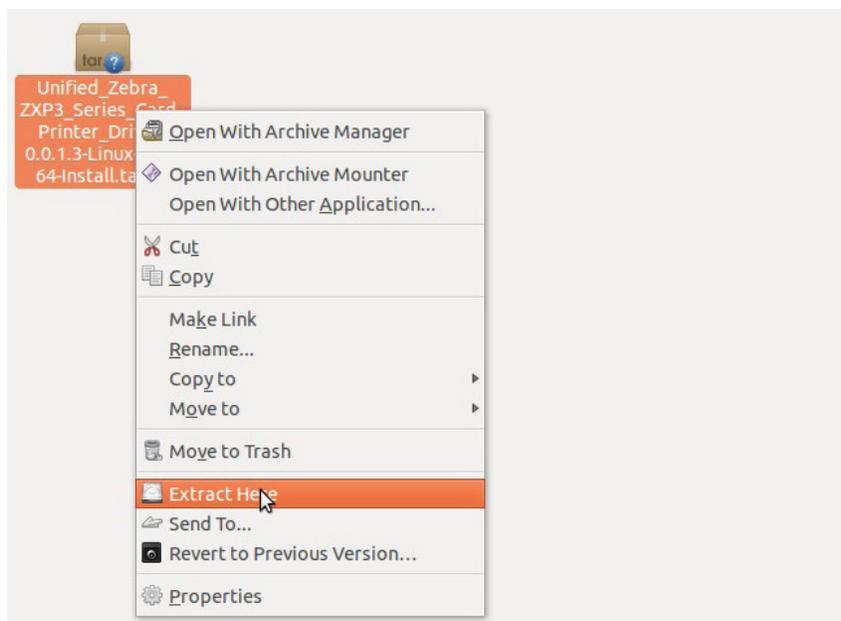
```
ganesh@ganesh-HP-Pro-3330-MT: /usr/local
ganesh@ganesh-HP-Pro-3330-MT:/usr/local$ ls
bin          games      lib        SAM4S      src
CodeCorLinuxLibrary  include   man        sbin       SWEDA
etc          java       QUORION   share     ZebraZXP3Driver
ganesh@ganesh-HP-Pro-3330-MT:/usr/local$
```



Installing the Driver

Ubuntu

To install the Zebra ZXP Series 3 Driver, right click on the **Unified_Zebra_ZXP3_Series_Card_Printer_Driver-0.0.1.3-Linux-x86_64-Install.tar.gz** file and select **Extract Here**.



3: Installing the Driver

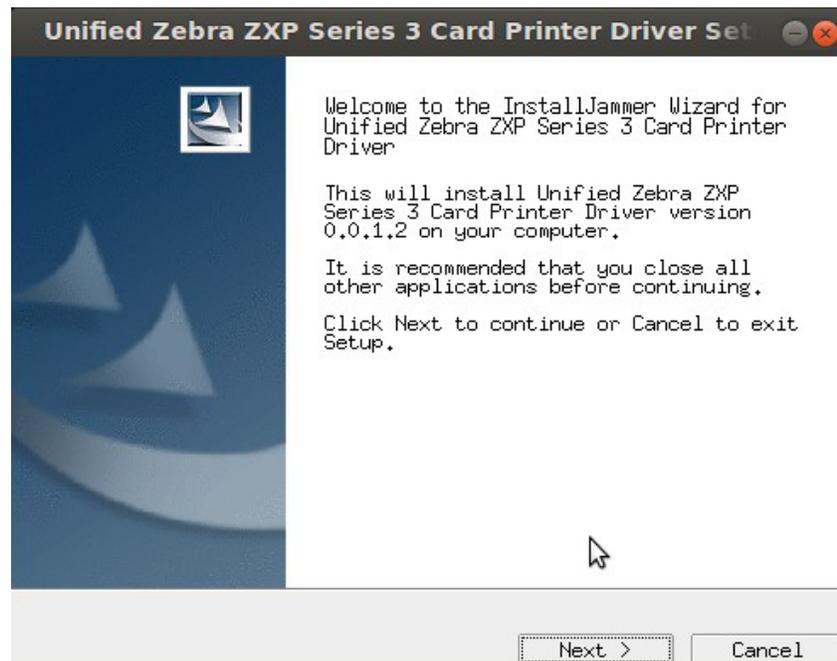
Double-click on the extracted file to launch the installer.



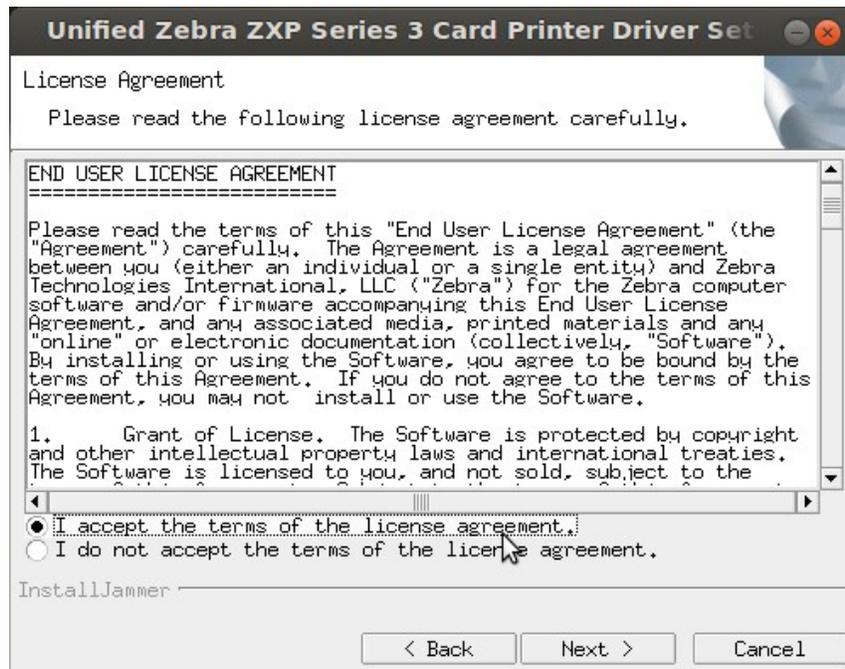
Click **Yes** on the confirmation message to continue the installation.



Click **Next**.



Click the **I accept** radio button on the License Agreement screen and then click **Next**.



Select the printer model that you want to install.

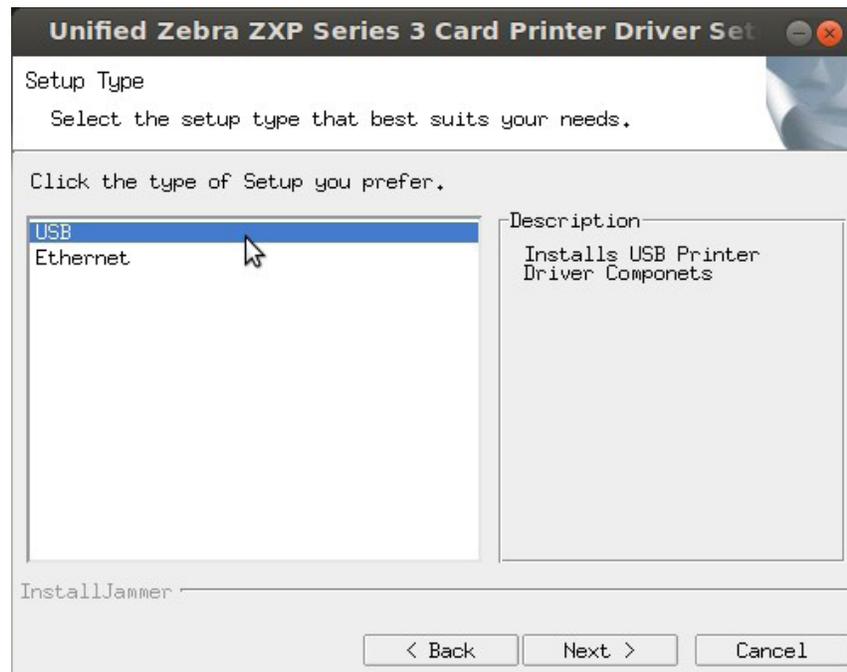


Now the installation wizard shows the two setup types:

- USB Installation
- Ethernet Installation

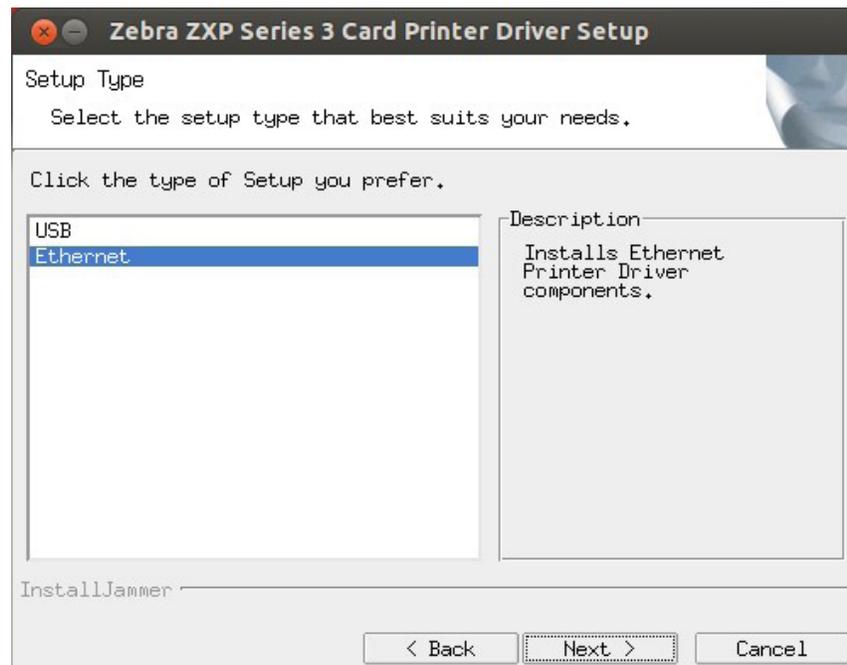
USB Installation

Select the **USB** setup type and click **Next**.

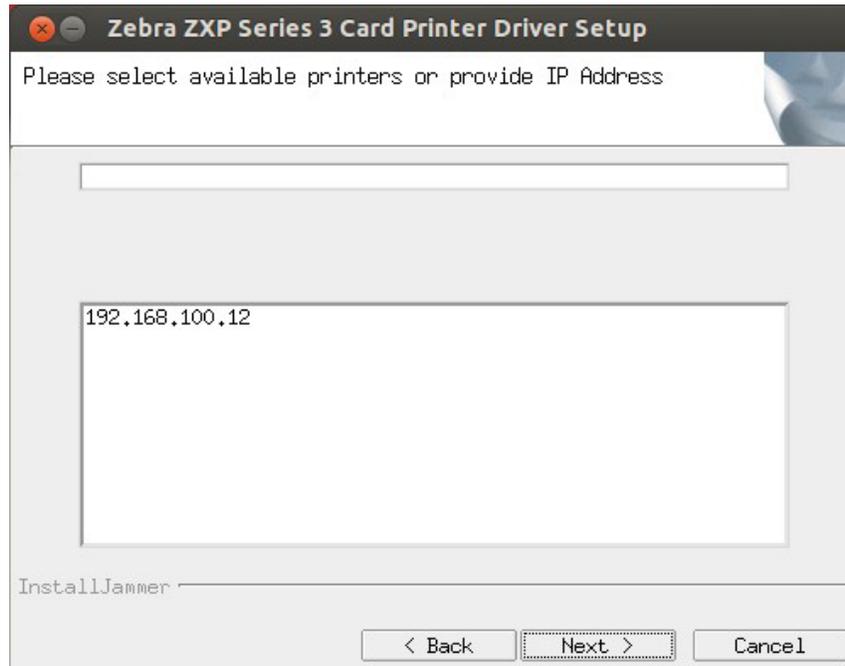


Ethernet Installation

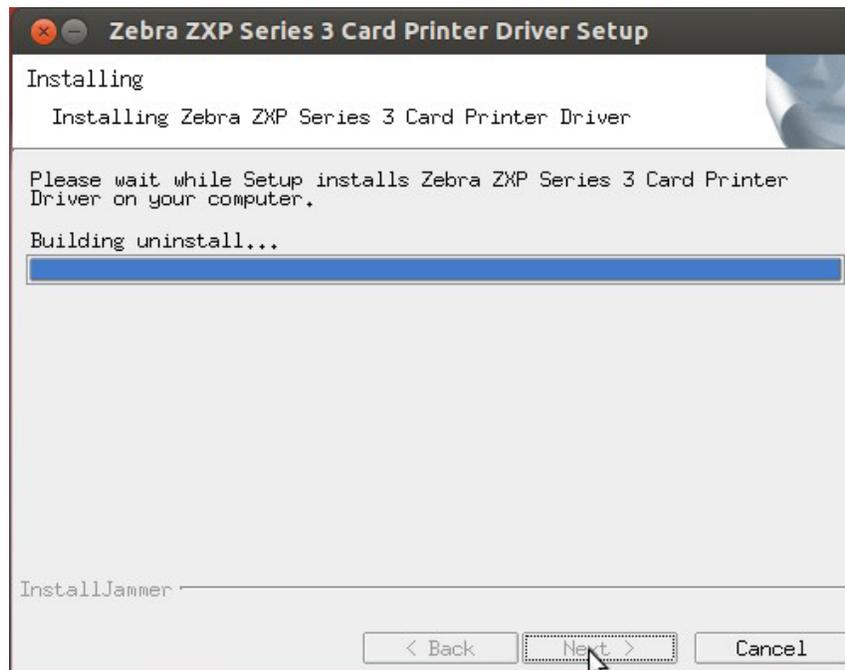
Or, select the **Ethernet** setup type and click **Next**.



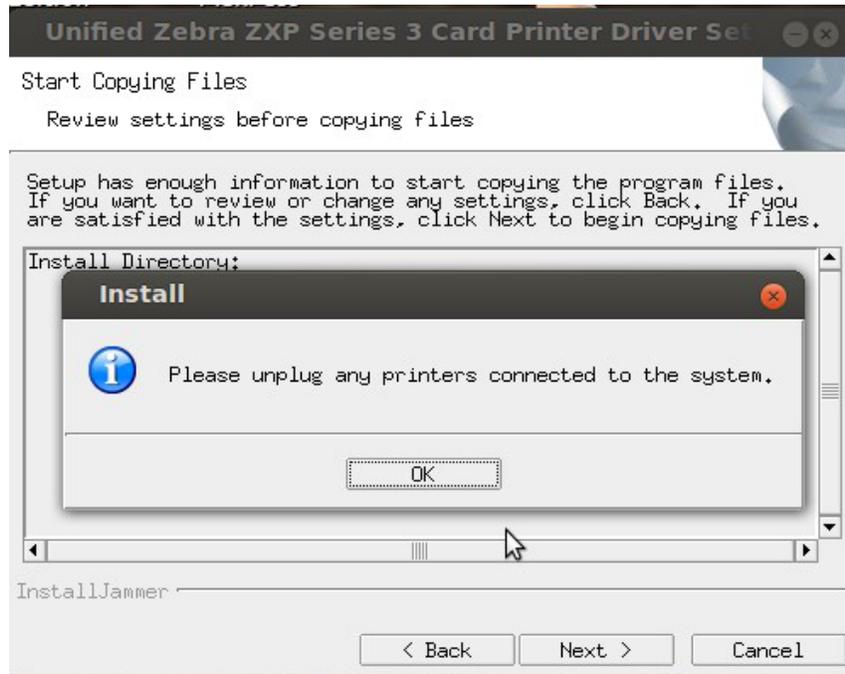
The IP address(es) of the connected ZXP Series 3 card printers will be displayed; select the desired printer and click **Next**.



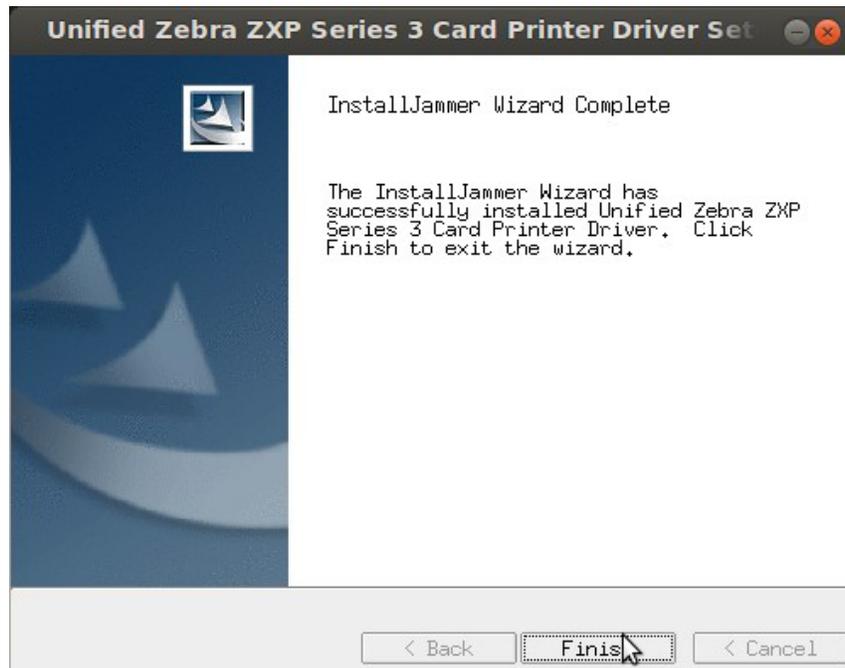
Setup will copy all the necessary files to the destination as displayed below.



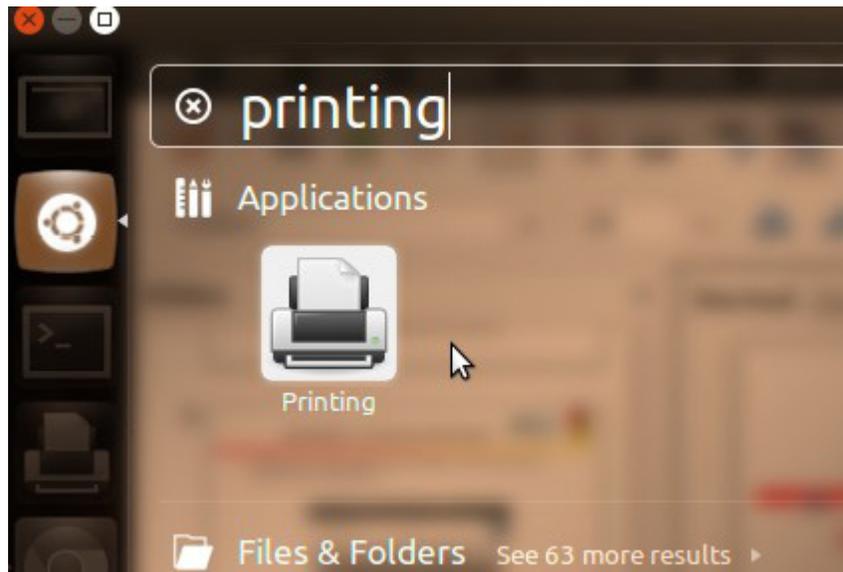
Unplug any Zebra ZXP Series printers and click **OK** to continue the installation.



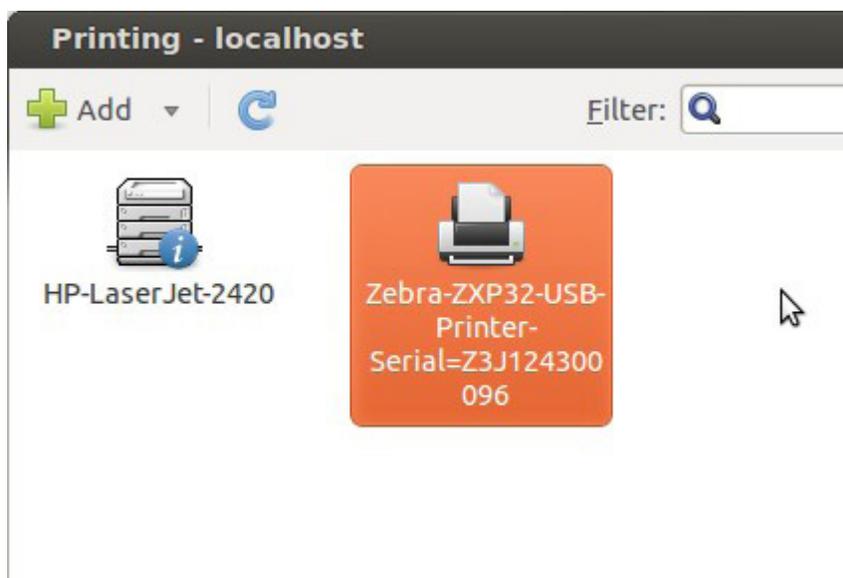
Now all the necessary files will be copied to the destination and the installation is completed. Click **Finish** to close the installation wizard.



Plug in the Zebra ZXP Series 3 printer and turn it on. Open the the Wubi dashboard and type **printing**.



The installed printers will be displayed in the printer control panel.



Redhat

To install the Zebra ZXP Series 3 Driver:

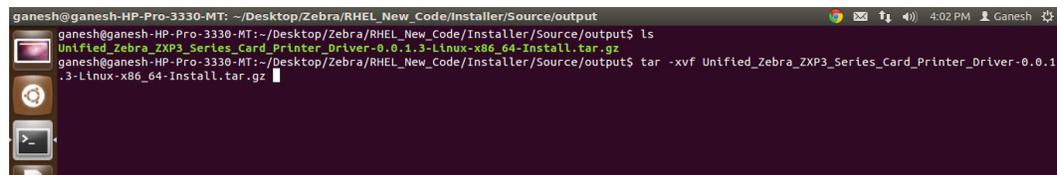
- Open the Terminal
- Change the directory to where the downloaded Zebra ZXP Series 3 files reside:

For example: **cd /home/zebra/Desktop**

- Extract the files using the following command:

tar -xvf <tar.gz file name>

For example: **#tar -xvf Unified_Zebra_ZXP3_Series_Card_Printer_Driver-0.0.1.3-Linux-x86_64-Install.tar.gz**



```

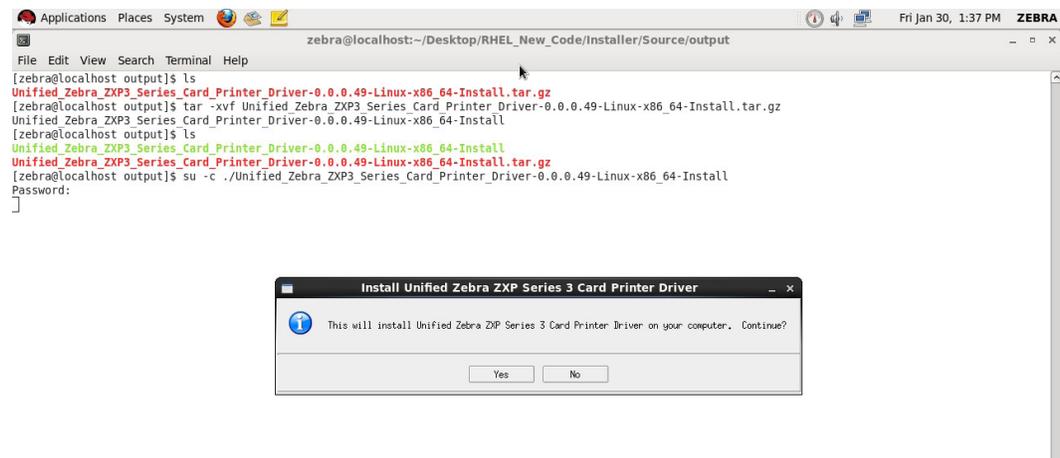
ganesh@ganesh-HP-Pro-3330-MT: ~/Desktop/Zebra/RHEL_New_Code/Installer/Source/output
ganesh@ganesh-HP-Pro-3330-MT:~/Desktop/Zebra/RHEL_New_Code/Installer/Source/output$ ls
Unified_Zebra_ZXP3_Series_Card_Printer_Driver-0.0.1.3-Linux-x86_64-Install.tar.gz
ganesh@ganesh-HP-Pro-3330-MT:~/Desktop/Zebra/RHEL_New_Code/Installer/Source/output$ tar -xvf Unified_Zebra_ZXP3_Series_Card_Printer_Driver-0.0.1.3-Linux-x86_64-Install.tar.gz

```

- Launch the installer using the following command:

su -c ./Unified_Zebra_ZXP3_Series_Card_Printer_Driver-0.0.1.3-Linux-x86_64-Install

Click **Yes** on the confirmation message to continue the installation.



```

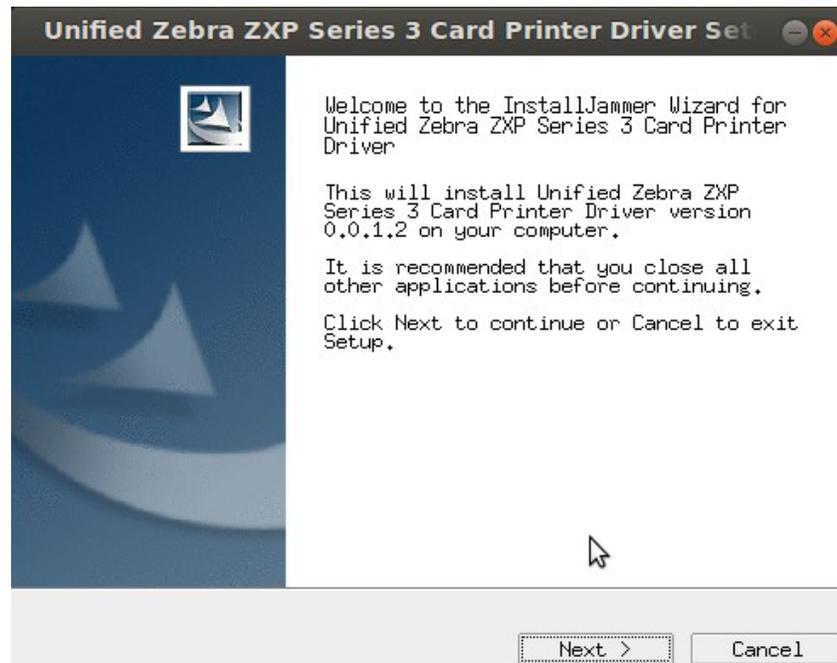
Applications Places System zebra@localhost:~/Desktop/RHEL_New_Code/Installer/Source/output
File Edit View Search Terminal Help
[zebra@localhost output]$ ls
Unified_Zebra_ZXP3_Series_Card_Printer_Driver-0.0.0.49-Linux-x86_64-Install.tar.gz
[zebra@localhost output]$ tar -xvf Unified_Zebra_ZXP3_Series_Card_Printer_Driver-0.0.0.49-Linux-x86_64-Install.tar.gz
Unified_Zebra_ZXP3_Series_Card_Printer_Driver-0.0.0.49-Linux-x86_64-Install
[zebra@localhost output]$ ls
Unified_Zebra_ZXP3_Series_Card_Printer_Driver-0.0.0.49-Linux-x86_64-Install
Unified_Zebra_ZXP3_Series_Card_Printer_Driver-0.0.0.49-Linux-x86_64-Install.tar.gz
[zebra@localhost output]$ su -c ./Unified_Zebra_ZXP3_Series_Card_Printer_Driver-0.0.0.49-Linux-x86_64-Install
Password:
]

```

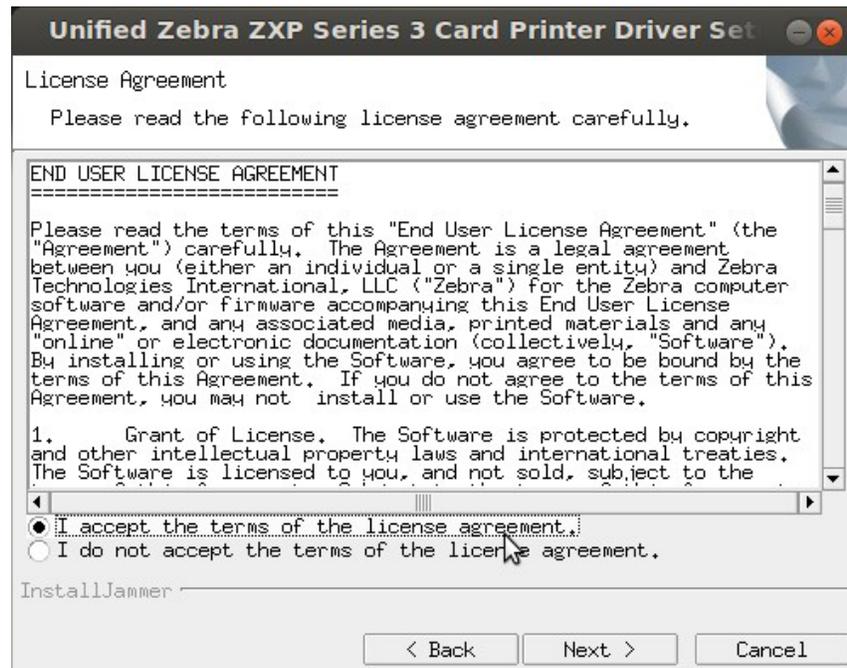
Install Unified Zebra ZXP Series 3 Card Printer Driver

This will install Unified Zebra ZXP Series 3 Card Printer Driver on your computer. Continue?

Click **Next**.



Click the **I accept** radio button on the License Agreement screen and then click **Next**.



Now the installation wizard shows the two setup types:

- USB Installation
- Ethernet Installation

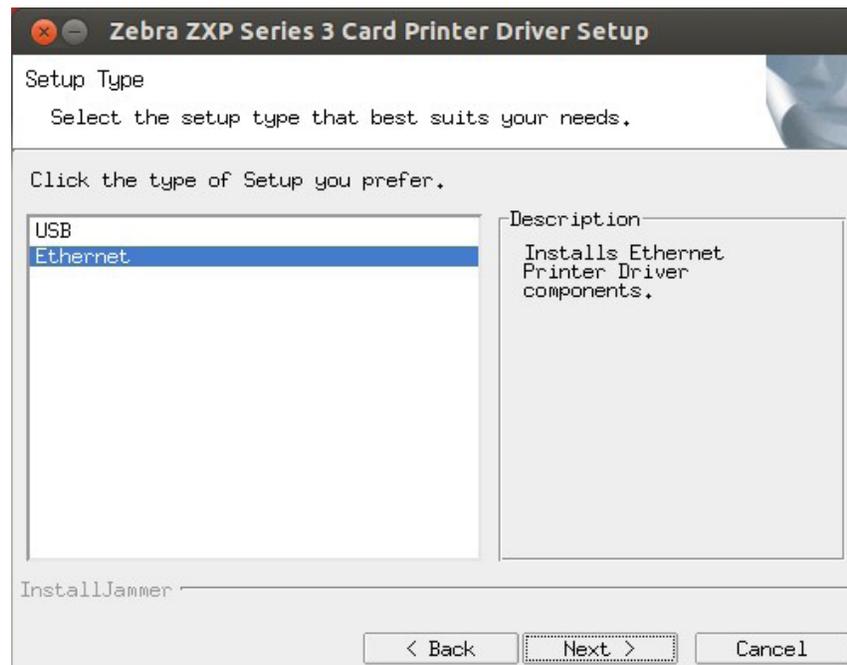
USB Installation

Select the **USB** setup type and click **Next**.

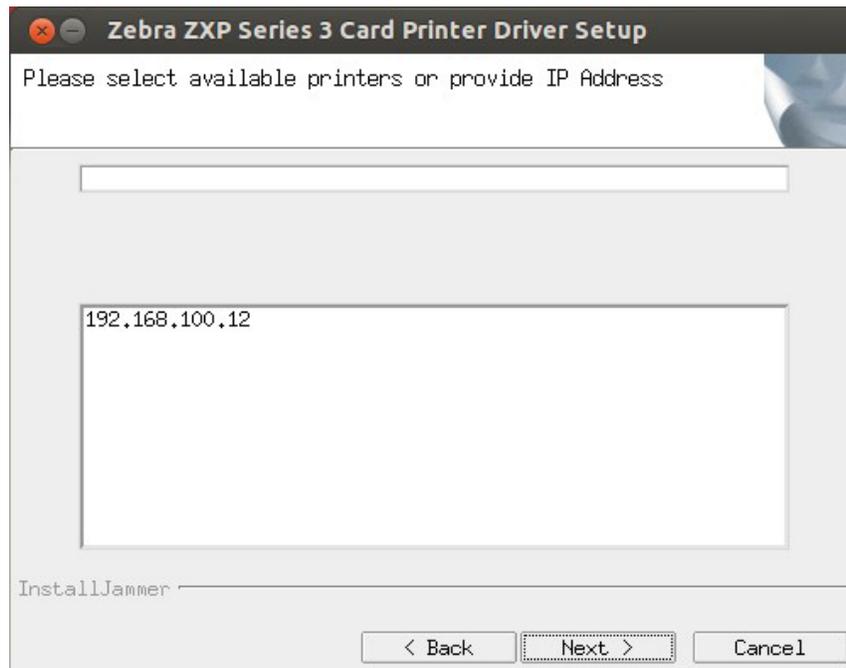


Ethernet Installation

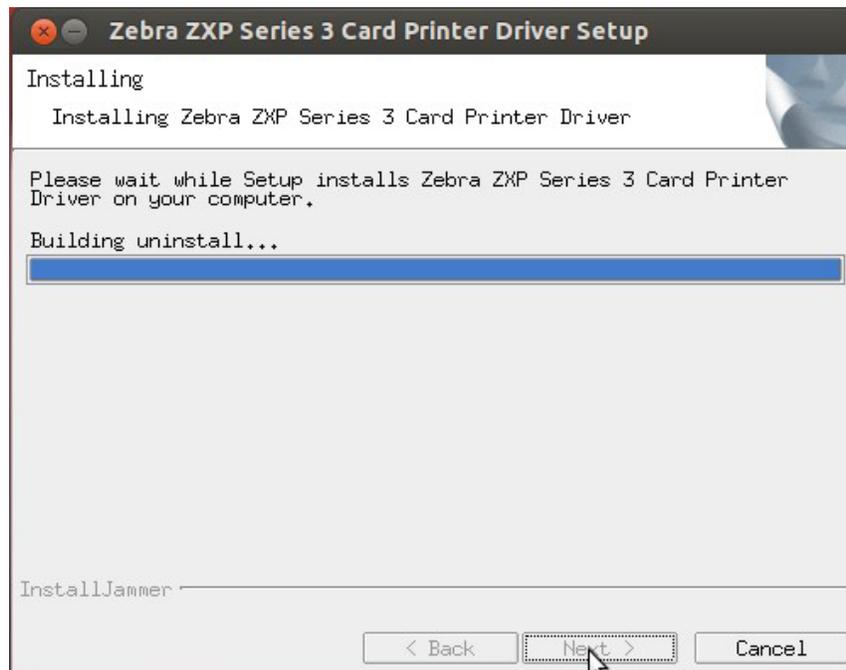
Or, select the **Ethernet** setup type and click **Next**.



The IP address(es) of the connected ZXP Series 3 card printers will be displayed; select the desired printer and click **Next**.



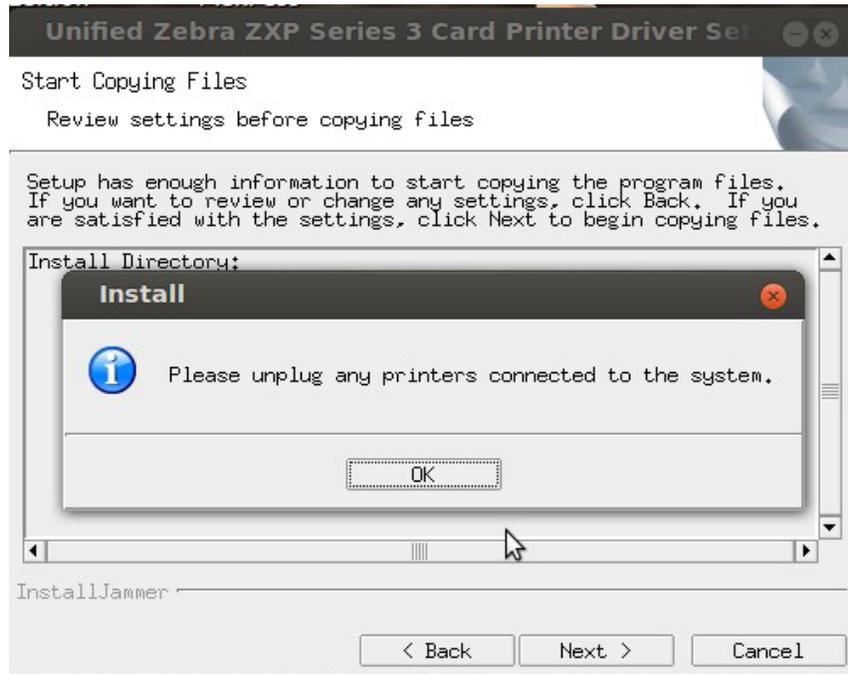
Setup will copy all the necessary files to the destination as displayed below.



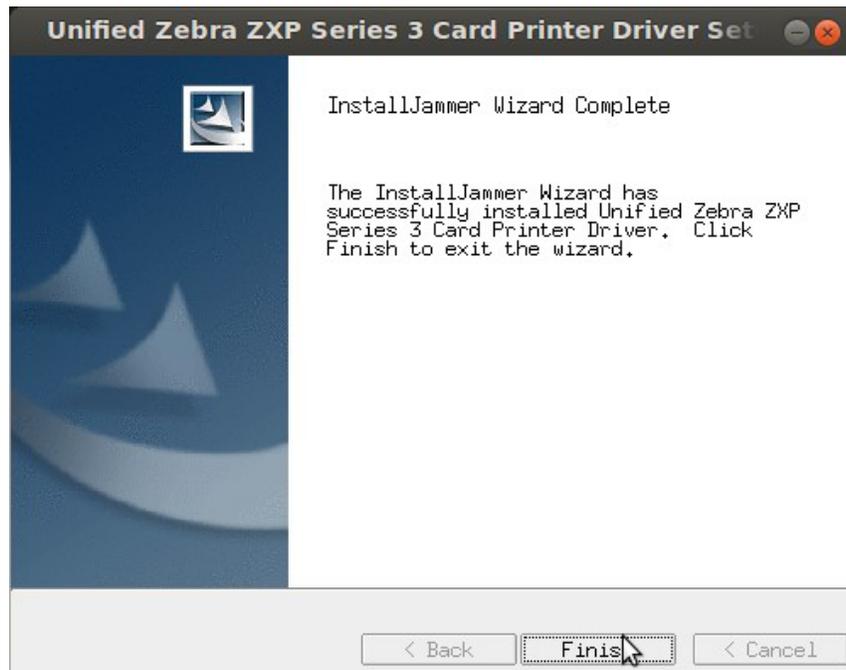
Select the printer model that you want to install.



Unplug any Zebra ZXP Series printers and click **OK** to continue the installation.



Now all the necessary files will be copied to the destination and the installation is completed. Click **Finish** to close the installation wizard.



Silent Mode Installation

To install the Zebra ZXP Series 3 Driver:

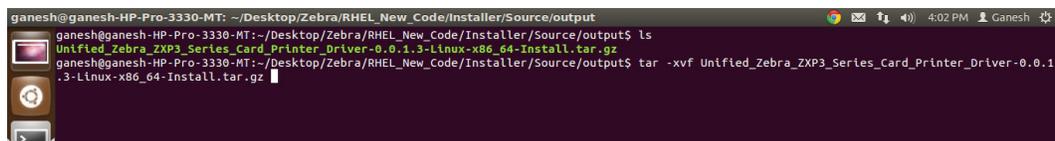
- Open the Terminal.
- Change the directory to where you have downloaded Zebra ZXP Series 3 files.

For example: `cd /home/zebra/Desktop`

- Extract the files using the following command:

tar -xvf <tar.gz file name>

For Example: **#tar -xvf Unified_Zebra_ZXP3_Series_Card_Printer_Driver-0.0.1.3-Linux-x86_64-Install.tar.gz**

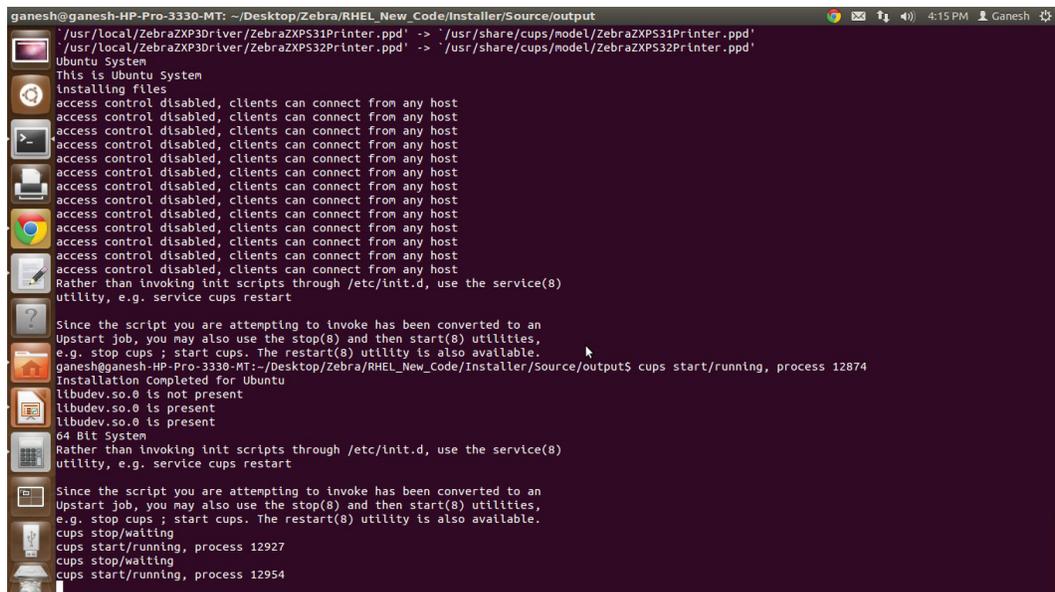


```
ganesh@ganesh-HP-Pro-3330-MT: ~/Desktop/Zebra/RHEL_New_Code/Installer/Source/output
ganesh@ganesh-HP-Pro-3330-MT:~/Desktop/Zebra/RHEL_New_Code/Installer/Source/output$ ls
Unified_Zebra_ZXP3_Series_Card_Printer_Driver-0.0.1.3-Linux-x86_64-Install.tar.gz
ganesh@ganesh-HP-Pro-3330-MT:~/Desktop/Zebra/RHEL_New_Code/Installer/Source/output$ tar -xvf Unified_Zebra_ZXP3_Series_Card_Printer_Driver-0.0.1.3-Linux-x86_64-Install.tar.gz
```

- Launch the installer in silent mode using the following command:

#sudo ./Unified_Zebra_ZXP3_Series_Card_Printer_Driver-0.0.x.x-Linux-x86_64-Install --mode silent

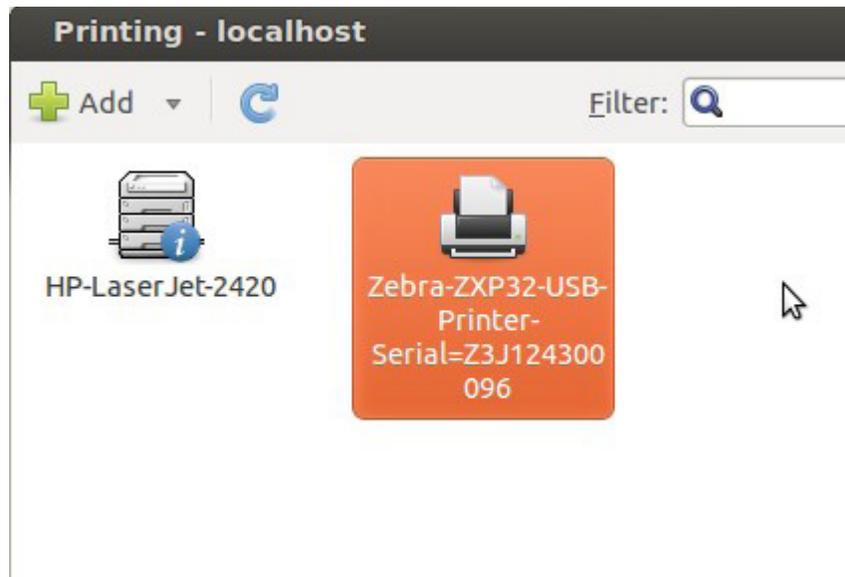
- Enter the password to continue the installation. When the messages stop, press Enter again for the command prompt.



```
ganesh@ganesh-HP-Pro-3330-MT: ~/Desktop/Zebra/RHEL_New_Code/Installer/Source/output
'/usr/local/ZebraZXP3Driver/ZebraZXP31Printer.ppd' -> '/usr/share/cups/model/ZebraZXP31Printer.ppd'
'/usr/local/ZebraZXP3Driver/ZebraZXP32Printer.ppd' -> '/usr/share/cups/model/ZebraZXP32Printer.ppd'
Ubuntu System
This is Ubuntu System
Installing files
access control disabled, clients can connect from any host
access control disabled, clients can connect from any host
access control disabled, clients can connect from any host
access control disabled, clients can connect from any host
access control disabled, clients can connect from any host
access control disabled, clients can connect from any host
access control disabled, clients can connect from any host
access control disabled, clients can connect from any host
access control disabled, clients can connect from any host
access control disabled, clients can connect from any host
access control disabled, clients can connect from any host
access control disabled, clients can connect from any host
access control disabled, clients can connect from any host
Rather than invoking init scripts through /etc/init.d, use the service(8)
utility, e.g. service cups restart
Since the script you are attempting to invoke has been converted to an
Upstart job, you may also use the stop(8) and then start(8) utilities,
e.g. stop cups ; start cups. The restart(8) utility is also available.
ganesh@ganesh-HP-Pro-3330-MT:~/Desktop/Zebra/RHEL_New_Code/Installer/Source/output$ cups start/running, process 12874
Installation completed for Ubuntu
libudev.so.0 is not present
libudev.so.0 is present
64 Bit System
Rather than invoking init scripts through /etc/init.d, use the service(8)
utility, e.g. service cups restart
Since the script you are attempting to invoke has been converted to an
Upstart job, you may also use the stop(8) and then start(8) utilities,
e.g. stop cups ; start cups. The restart(8) utility is also available.
cups stop/waiting
cups start/running, process 12927
cups stop/waiting
cups start/running, process 12954
```

- Plug in the printer and turn it on.
- The printer will be added automatically by the Zebra PnP.

The printer is in the “Printing” Control Panel.



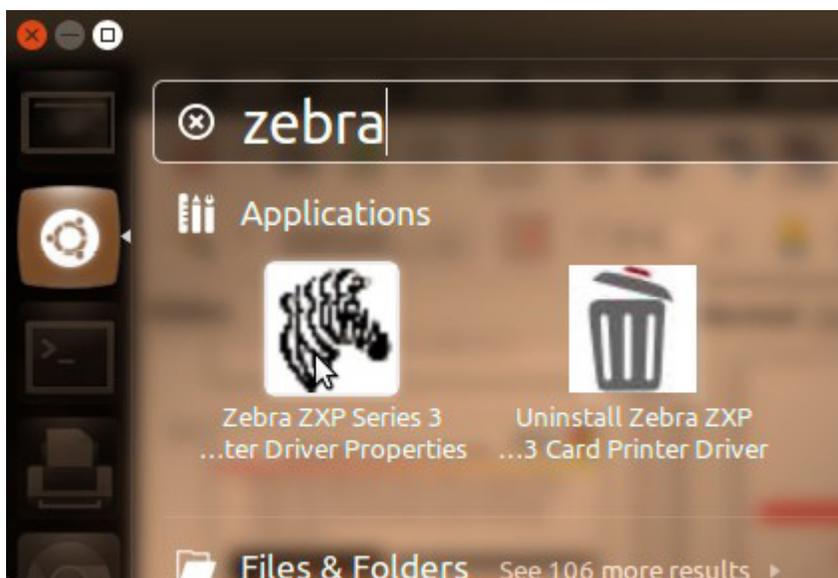


Uninstalling the Driver

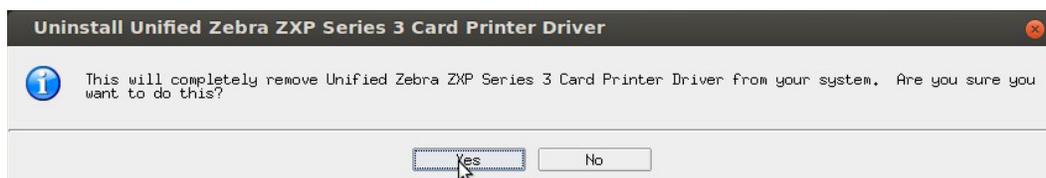
Ubuntu

To Uninstall the Zebra ZXP Series 3 Printer Driver, click on the **Wubi** dashboard and type **Zebra**.

Double-click on the **Uninstall Zebra ZXP Series 3 Printer Driver** icon.



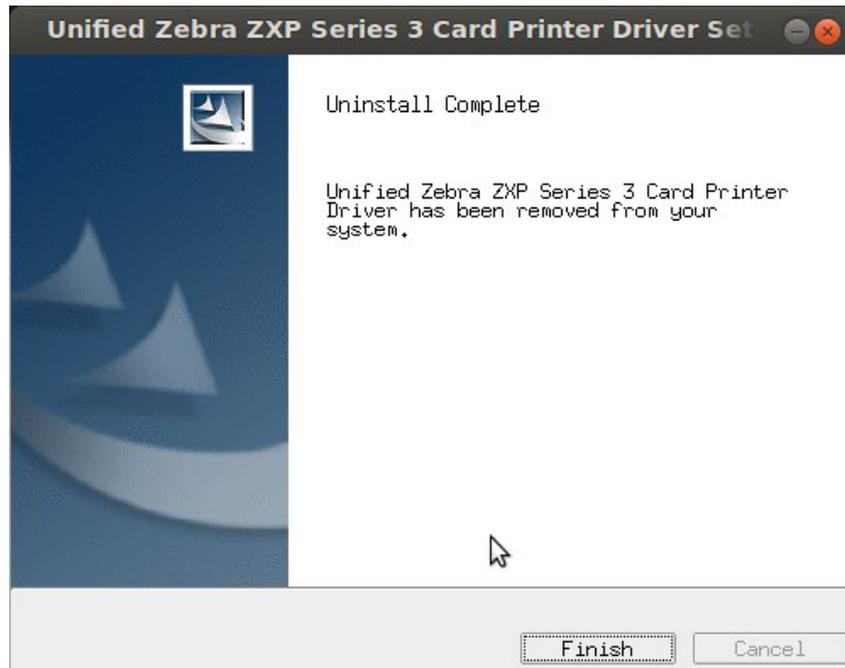
Type the root password and click **Yes** in the uninstallation confirmation to proceed with uninstallation.



Unplug the Zebra ZXP Series 3 USB Printer and click **OK** to uninstall the driver.



Once the driver is uninstalled successfully, click **Finish**.

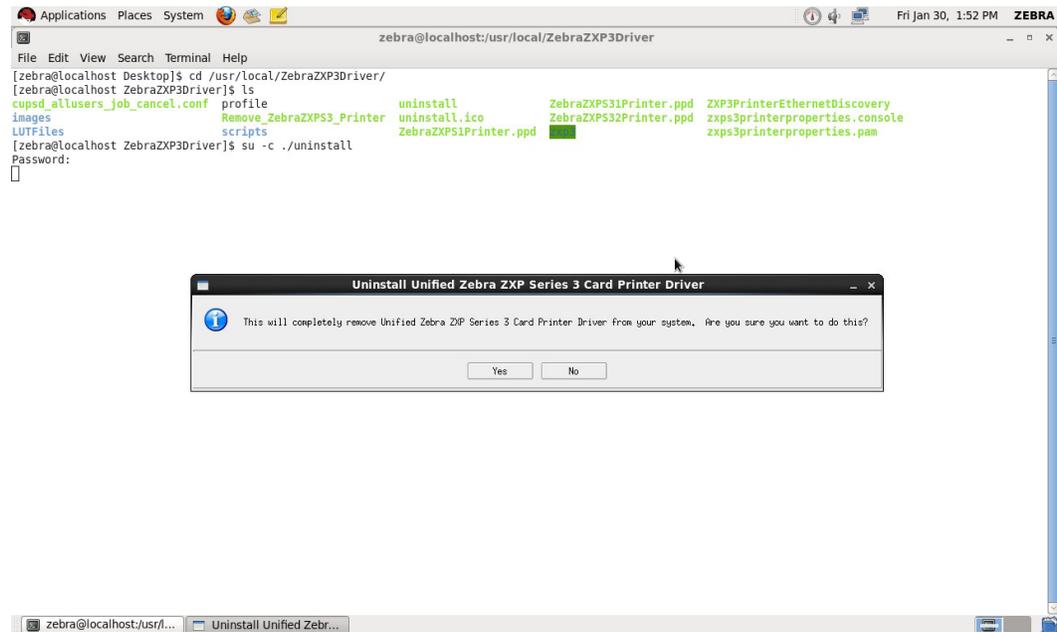


Redhat

To uninstall the Zebra ZXP Series 3 Printer driver, open the Terminal window and change the directory to `/usr/local/ZebraZXP3Driver/`.

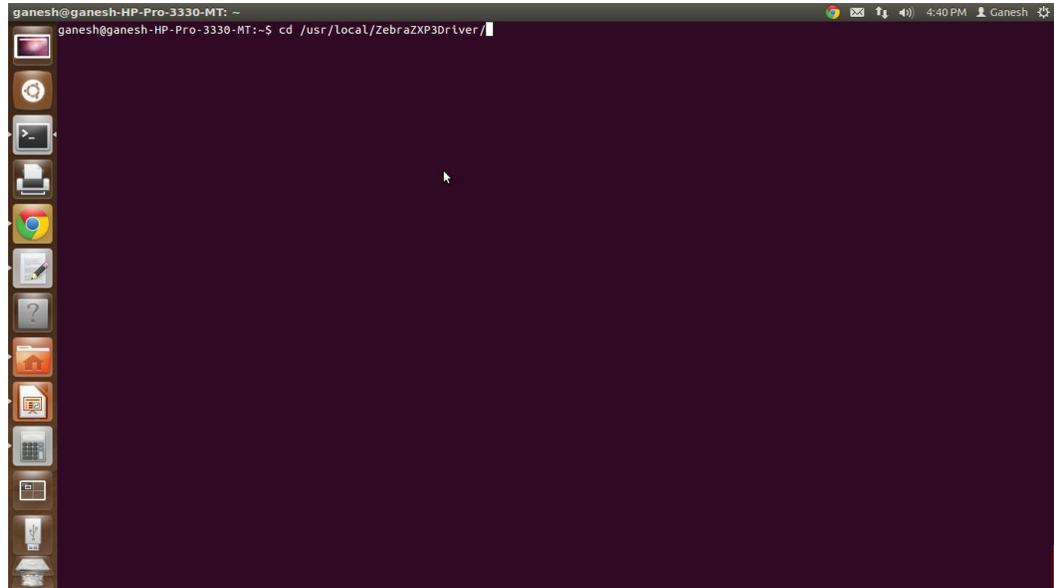
Type the following command to launch the GUI Uninstaller:

```
#su -c ./uninstall
```



Uninstalling in Silent Mode

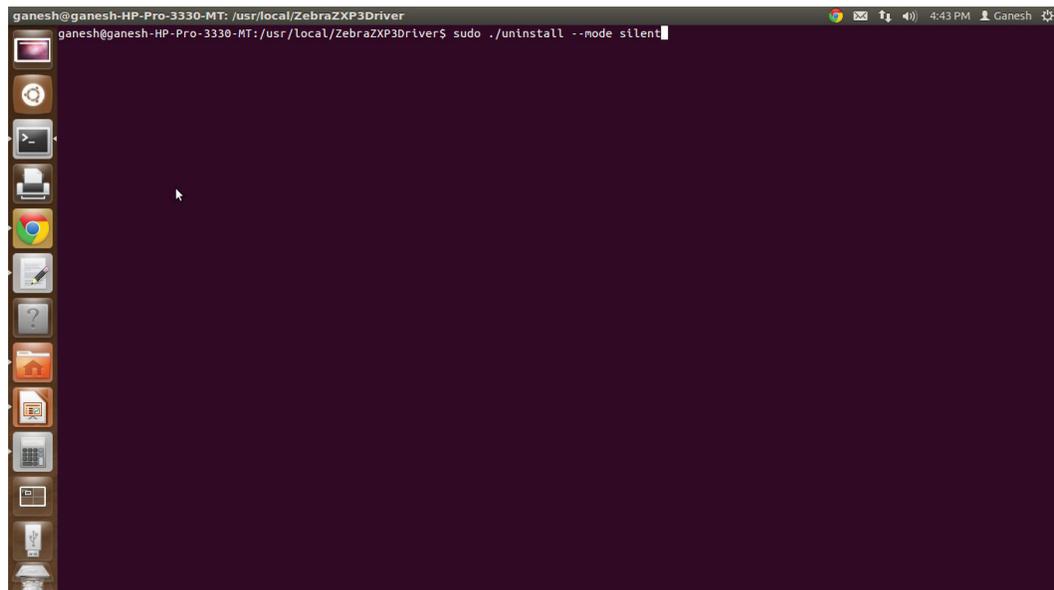
To uninstall the Zebra ZXP Series 3 Printer driver in silent mode, open the Terminal window and change the directory to **/usr/local/ZebraZXP3Driver/**.



Type the following command to launch the uninstaller in silent mode:

```
#sudo ./uninstall
```

Once all the files are uninstalled, close the Terminal window.



Adding an Ethernet Printer

To add the Ethernet printer through the terminal window, open the terminal and enter the following command:

```
# lpadmin -p <printername> -E -v "zxp3socket://<printerIP>:9100" -m <ppdName>
```

For example: **# lpadmin -p lpt3 -E -v zxp3socket://130.0.100.109:9100 -P /usr/share/cups/model/ZebraZXPS31Printer.ppd**

All Zebra ZXP Series 3 Printer requests should go through Zebra Backend which is indicated by zxp3socket.



Technical Commands

- Printing through terminal
Command: **#lpr <filename>**
For example: **#lpr test.txt**
This will print through default printer.
- To print using specific printer
Command: **#lpr -P <printer name>**
For example: **#lpr -P Zebra-ZXP11-USB-Printer-Serial=Z1J124400043 test.txt**
- To view the Zebra ZXP Series 3 Log Files
Log File Path: **/tmp**
Log File Names:
 - **ZXPS3Filter.log** (Common for both USB and Ethernet printers)
 - **ZXPS3USB.log** (For USB printers)
 - **ZXPS3SOCK.log** (For Ethernet printers)
- To view the log files
Command: **#vi /tmp/ZXPS3Filter.log**
User must have root access to view the log files.
User can use any text editor to view the log files



Troubleshooting

- Printer does not print

Open the terminal and restart the service

- Ubuntu

```
#sudo service cups restart
```

- RHEL

```
#su
```

```
#service cups restart
```

- Check the permission of the Zebra ZXP Series 3 CUPS filter

Open the terminal and change the directory **/usr/lib/cups/filter** and enter the following command:

```
# ls -l rastertoexp3
```

If the permission is correct, the following will be displayed:

```
-rwxr-xr-x
```

If the permission is not correct, enter the following command to reset the permission:

- Ubuntu

```
# sudo chmod 755 /usr/lib/cups/filter/rastertoexp3
```

- RHEL

```
#su
```

```
#chmod 755 /usr/lib/cups/filter/rastertoexp3
```

- Check the permission of the Zebra ZXP Series 3 Backend

Open the terminal and change the directory `/usr/lib/cups/backend` and enter the following command:

```
# ls -l zxp3socket
```

```
# ls -l zxp3usb
```

If the permission is correct, the following will be displayed:

```
-rwxr-xr-x
```

If the permission is not correct, enter the following command to reset the permission:

- Ubuntu

```
# sudo chmod 755 /usr/lib/cups/filter/zxp3usb
```

```
# sudo chmod 755 /usr/lib/cups/backend/zxp3socket
```

- RHEL

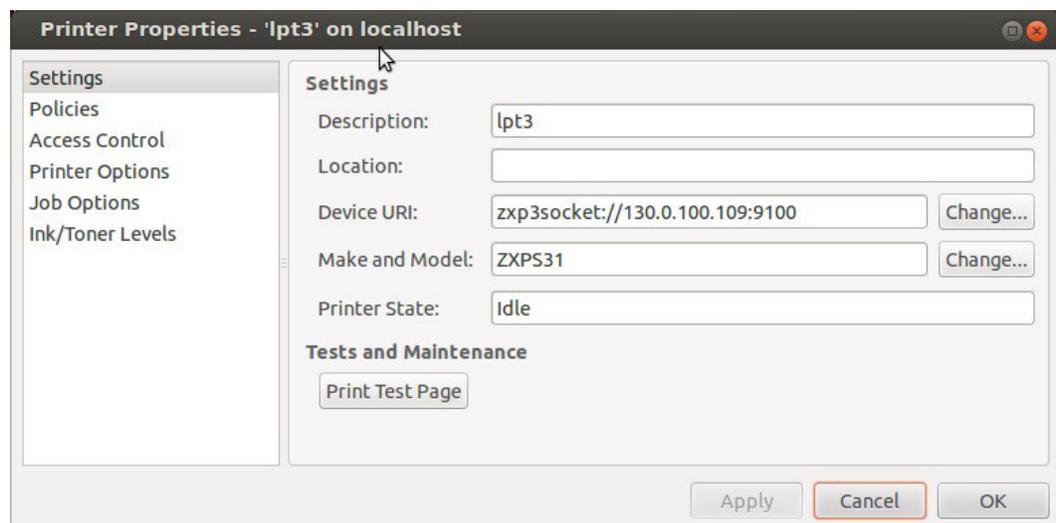
```
#su
```

```
#chmod 755 /usr/lib/cups/filter/zxp3usb
```

```
#chmod 755 /usr/lib/cups/filter/zxp3socket
```

If the printer was manually added (USB or Ethernet), make sure the backend is configured correctly in the CUPS Printer Properties.

- For USB printers, the backend should start with **zxp3usb**.
- For Ethernet printers, the backend should be start with **zxp3socket**.

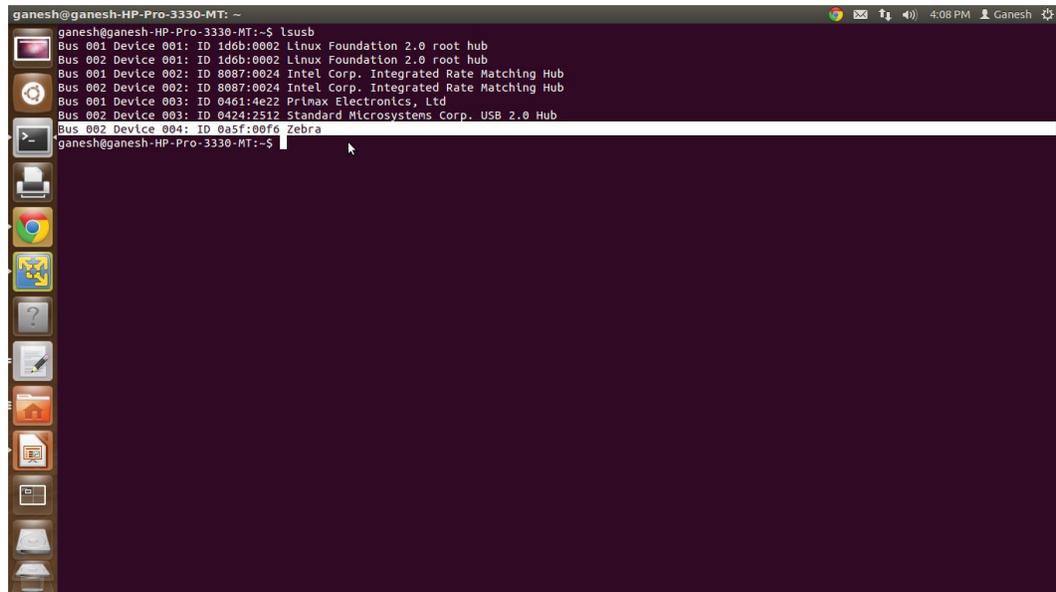


The following pid and vid are supported by the current Zebra ZXP Series 3 Printer Driver:

- PID: 0050, 00f6, and 005C
- VID: 0a5f

You can check the pid and vid of the printer in the terminal by typing the following command:

```
#lsusb
```



The image shows a terminal window with the following output for the `lsusb` command:

```
ganesh@ganesh-HP-Pro-3330-MT:~$ lsusb
Bus 001 Device 001: ID 1d6b:0002 Linux Foundation 2.0 root hub
Bus 002 Device 001: ID 1d6b:0002 Linux Foundation 2.0 root hub
Bus 001 Device 002: ID 8087:0024 Intel Corp. Integrated Rate Matching Hub
Bus 002 Device 002: ID 8087:0024 Intel Corp. Integrated Rate Matching Hub
Bus 001 Device 003: ID 0401:4e22 Prinix Electronics, Ltd
Bus 002 Device 003: ID 0424:2512 Standard Microsystems Corp. USB 2.0 Hub
Bus 002 Device 004: ID 0a5f:00f6 Zebra
ganesh@ganesh-HP-Pro-3330-MT:~$
```

