

Monitor Update Utility (MUU)

Linux Version User's Guide (RPM version)

Version: 0.20

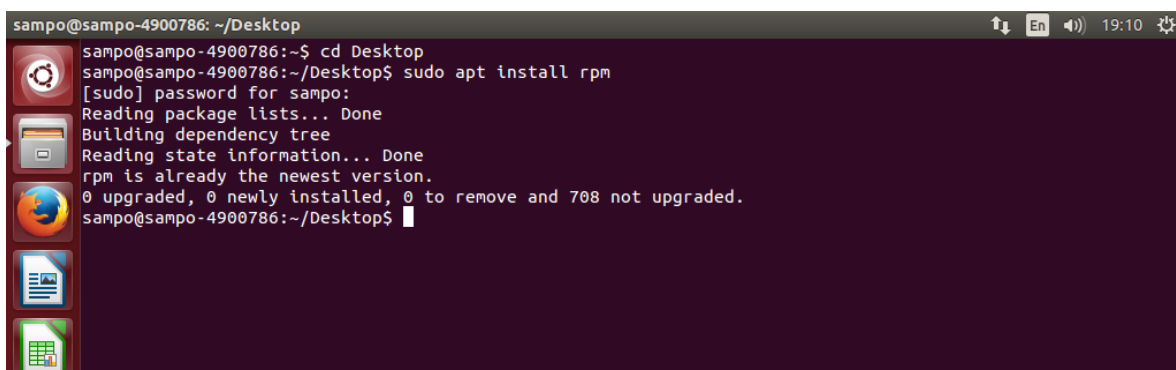
1. Utility Installation Requirement:

1.1 Confirm the RPM program available in the Linux OS before installation:

Before the RPM version MUU installation, you need to make sure the Linux OS with the RPM program. Here we provide the example in the Ubuntu version 16.04 OS to download the RPM program from website.

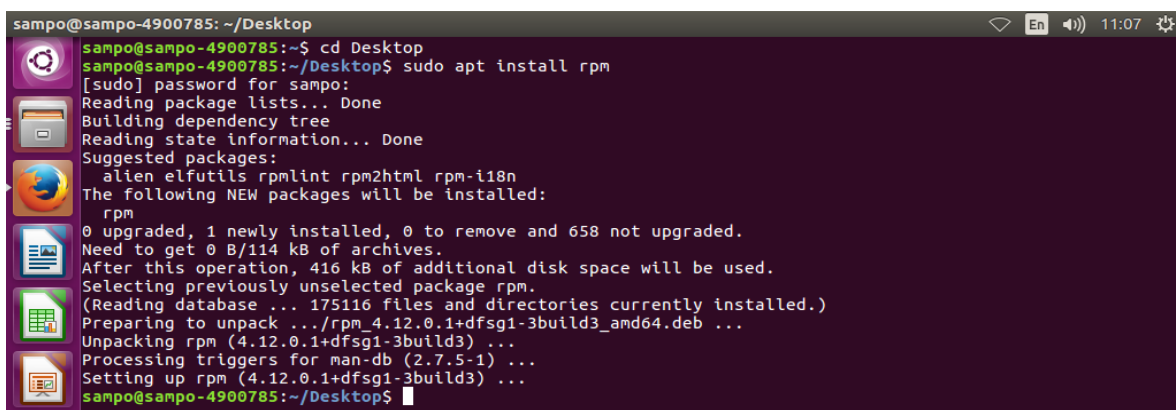
Ubuntu 16.04 rpm installation command: `sudo apt install rpm`

32Bit Environment:

A terminal window titled 'sampo@sampo-4900786: ~/Desktop' showing the command 'sudo apt install rpm' being executed. The output indicates that rpm is already the newest version and no packages need to be upgraded.

```
sampo@sampo-4900786: ~/Desktop
sampo@sampo-4900786:~$ cd Desktop
sampo@sampo-4900786:~/Desktop$ sudo apt install rpm
[sudo] password for sampo:
Reading package lists... Done
Building dependency tree
Reading state information... Done
rpm is already the newest version.
0 upgraded, 0 newly installed, 0 to remove and 708 not upgraded.
sampo@sampo-4900786:~/Desktop$
```

64bit Environment:

A terminal window titled 'sampo@sampo-4900785: ~/Desktop' showing the command 'sudo apt install rpm' being executed. The output shows the installation of rpm on a 64-bit system, including disk space requirements and package details.

```
sampo@sampo-4900785: ~/Desktop
sampo@sampo-4900785:~$ cd Desktop
sampo@sampo-4900785:~/Desktop$ sudo apt install rpm
[sudo] password for sampo:
Reading package lists... Done
Building dependency tree
Reading state information... Done
Suggested packages:
  alien elfutils rpmlint rpm2html rpm-i18n
The following NEW packages will be installed:
  rpm
0 upgraded, 1 newly installed, 0 to remove and 658 not upgraded.
Need to get 0 B/114 kB of archives.
After this operation, 416 kB of additional disk space will be used.
Selecting previously unselected package rpm.
(Reading database ... 175116 files and directories currently installed.)
Preparing to unpack .../rpm_4.12.0.1+dfsg1-3build3_amd64.deb ...
Unpacking rpm (4.12.0.1+dfsg1-3build3) ...
Processing triggers for man-db (2.7.5-1) ...
Setting up rpm (4.12.0.1+dfsg1-3build3) ...
sampo@sampo-4900785:~/Desktop$
```

1.2 Confirm the Python version and Libusb version is the requirement version:

1. Python version need to be 2.6 version or upper version.
2. libusb version need to be 1.0.8 or upper version.

1.3 Monitor Update Utility (MUU) can only work with the official release FW version, not for the trial version FW test use.

2. Utility Installation Process:

2.1 Installation:

2.1.1. Unzip the file “[MUU_V1.0.15_Linux.zip](#)”, you can find 2 folders: Linux folder and License folder.

Name	Size	Type
License	10.0 MB	Folder
Linux	1.4 MB	Folder

2.1.2 Enter in the Linux folder and run the rpm file as below command:

`sudo rpm -ivh --nodeps toshiba-muu_op-linux-1.0.15-00.noarch.rpm` (below picture is an example picture only, not the 1.0.15 version)

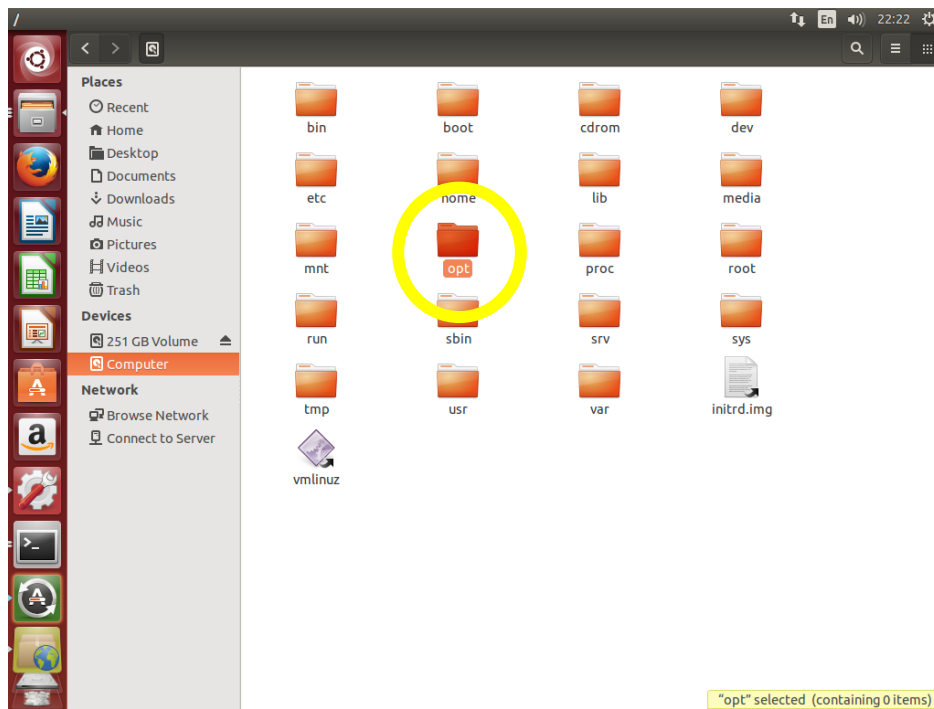
32Bit Environment:

```
sampo@sampo-4900786: ~/Desktop
sampo@sampo-4900786:~$ cd Desktop
sampo@sampo-4900786:~/Desktop$ sudo rpm -ivh --nodeps toshiba-muu_op-linux-1.0.3-01.noarch.rpm
[sudo] password for sampo:
rpm: RPM should not be used directly install RPM packages, use Alien instead!
rpm: However assuming you know what you are doing...
Preparing...##### [100%]
=====
Monitor Upgrade Utility Installer
Install
Version: 1.0.3-01
=====
Updating / installing...
1:toshiba-muu_op-linux-1.0.3-01##### [100%]
update-rc.d: warning: default stop runlevel arguments (0 1 6) do not match MonUp
dateRsv Default-Stop values (none)
OS: 32bit
Install Monitor Upgrade Utility completed.
-e Install Completed!
sampo@sampo-4900786:~/Desktop$
```

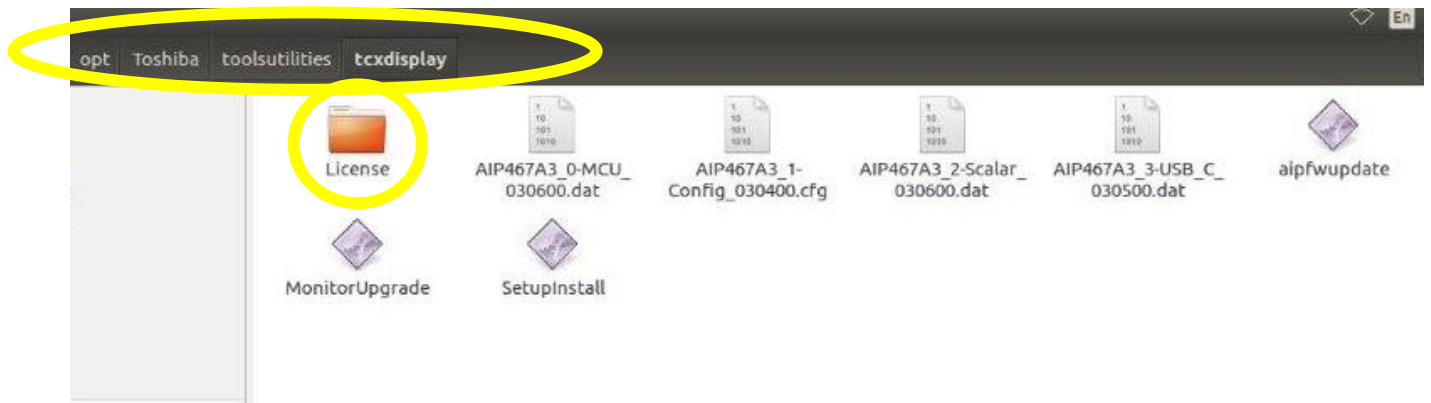
64Bit Environment:

```
sampo@sampo-4900785: ~/Desktop/MUU_V1.0.5/Linux
sampo@sampo-4900785:~$ cd Desktop
sampo@sampo-4900785:~/Desktop$ cd MUU_V1.0.5
sampo@sampo-4900785:~/Desktop/MUU_V1.0.5$ cd Linux
sampo@sampo-4900785:~/Desktop/MUU_V1.0.5/Linux$ sudo rpm -ivh --nodeps toshiba-muu_op-linux-1.0.5-00.noarch.rpm
[sudo] password for sampo:
rpm: RPM should not be used directly install RPM packages, use Alien instead!
rpm: However assuming you know what you are doing...
Preparing...##### [100%]
=====
Monitor Upgrade Utility Installer
Install
Version: 1.0.5-00
=====
Updating / installing...
1:toshiba-muu_op-linux-1.0.5-00##### [100%]
OS: 64bit
Install Monitor Upgrade Utility completed.
-e Install Completed!
sampo@sampo-4900785:~/Desktop/MUU_V1.0.5/Linux$
```

2.1.3 Installation complete and check the below path with the FW dat files:
`/opt/Toshiba/toolsutilities/tcxdisplay`



Also you can find the License folder is built as below to place the multi-language license files.

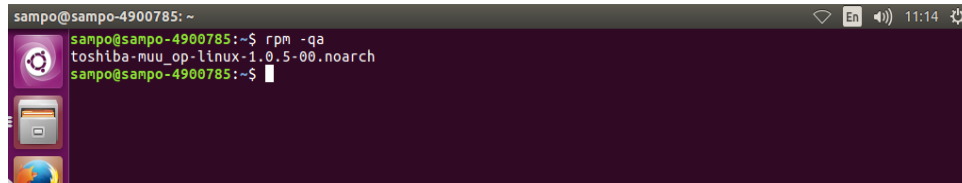


Reboot the host system and the MUU will start the FW update.

3. Utility Uninstallation Process:

1. Uninstallation command: (reference pictures for the uninstallation process is only an example, not the [V1.0.15 version](#).)

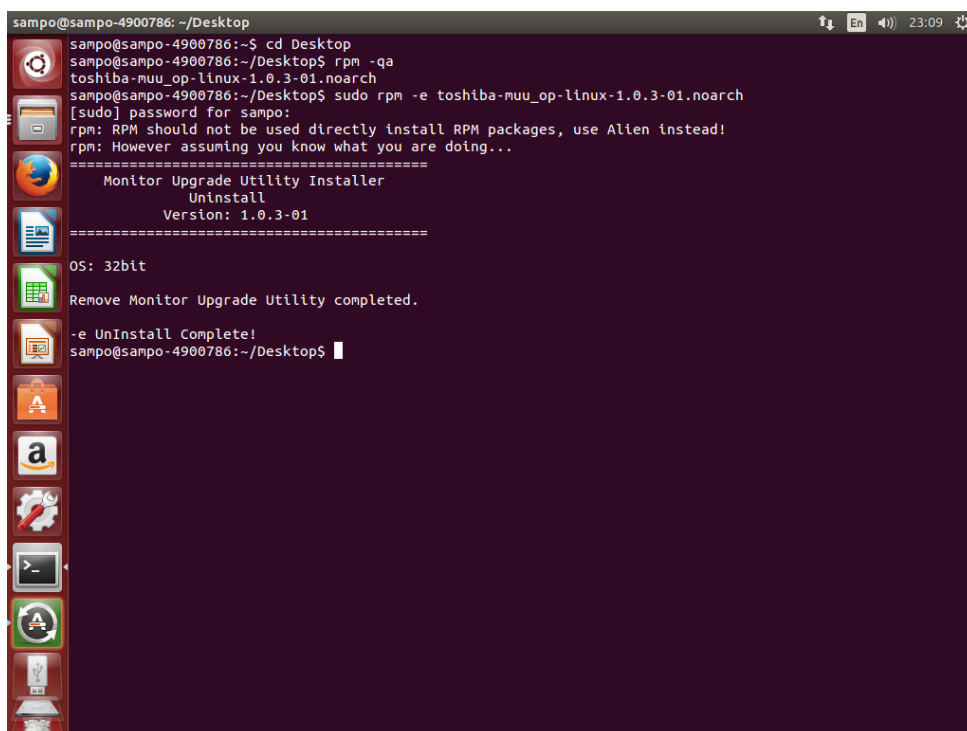
`rpm -qa` //Check the RPM package name



```
sampo@sampo-4900785:~$ rpm -qa
toshiba-muu_op-linux-1.0.5-00.noarch
sampo@sampo-4900785:~$
```

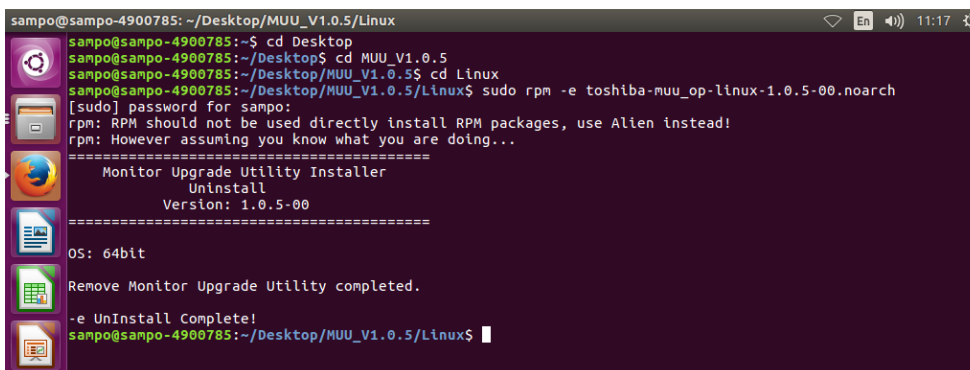
`sudo rpm -e toshiba-muu_op-linux-1.0.15-00.noarch` //remove rpm

32Bit Environment:



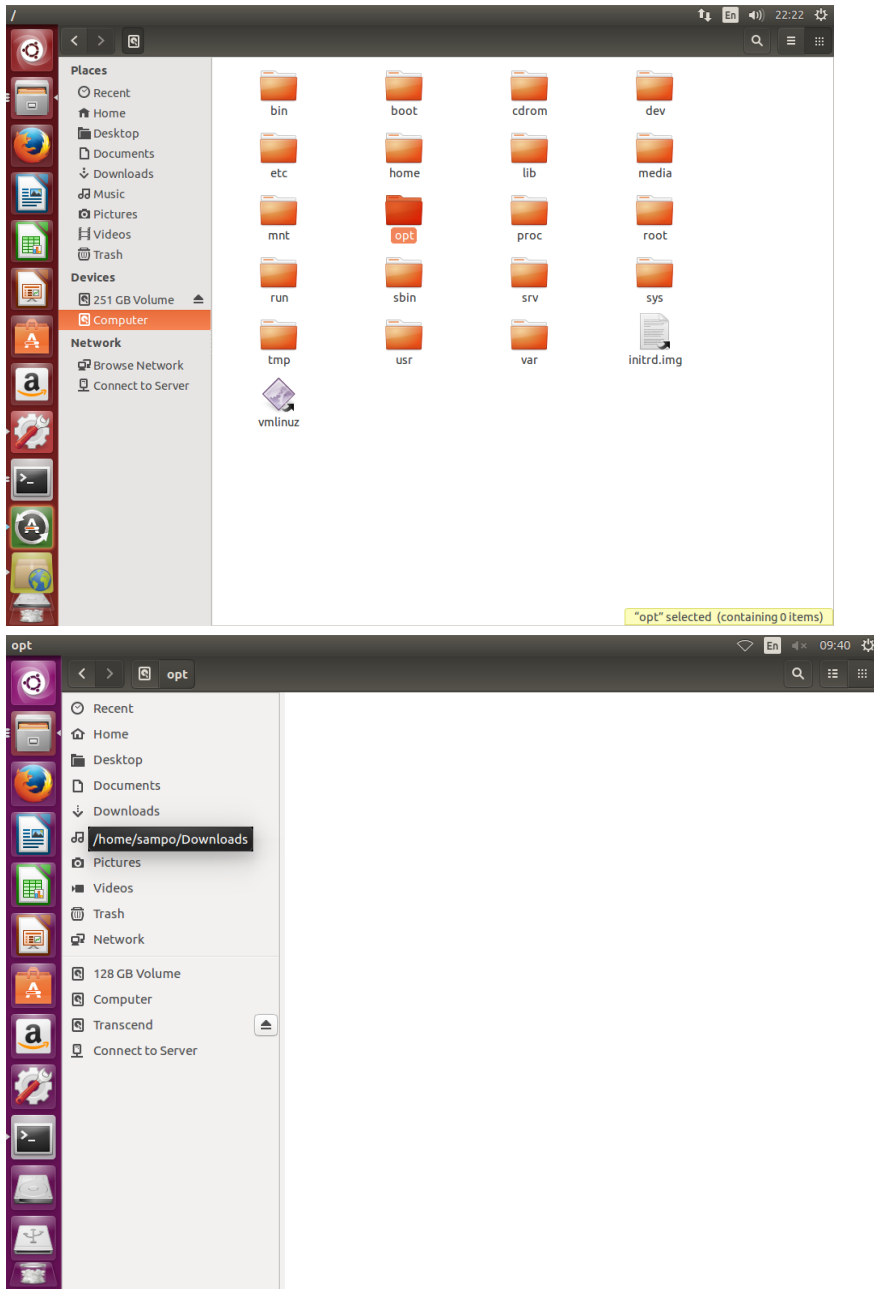
```
sampo@sampo-4900786: ~/Desktop
sampo@sampo-4900786:~$ cd Desktop
sampo@sampo-4900786:~/Desktop$ rpm -qa
toshiba-muu_op-linux-1.0.3-01.noarch
sampo@sampo-4900786:~/Desktop$ sudo rpm -e toshiba-muu_op-linux-1.0.3-01.noarch
[sudo] password for sampo:
rpm: RPM should not be used directly install RPM packages, use Alien instead!
rpm: However assuming you know what you are doing...
=====
Monitor Upgrade Utility Installer
Uninstall
Version: 1.0.3-01
=====
OS: 32bit
Remove Monitor Upgrade Utility completed.
-e UnInstall Complete!
sampo@sampo-4900786:~/Desktop$
```

64Bit Environment:



```
sampo@sampo-4900785: ~/Desktop/MUU_V1.0.5/Linux
sampo@sampo-4900785:~$ cd Desktop
sampo@sampo-4900785:~/Desktop$ cd MUU_V1.0.5
sampo@sampo-4900785:~/Desktop/MUU_V1.0.5$ cd Linux
sampo@sampo-4900785:~/Desktop/MUU_V1.0.5/Linux$ sudo rpm -e toshiba-muu_op-linux-1.0.5-00.noarch
[sudo] password for sampo:
rpm: RPM should not be used directly install RPM packages, use Alien instead!
rpm: However assuming you know what you are doing...
=====
Monitor Upgrade Utility Installer
Uninstall
Version: 1.0.5-00
=====
OS: 64bit
Remove Monitor Upgrade Utility completed.
-e UnInstall Complete!
sampo@sampo-4900785:~/Desktop/MUU_V1.0.5/Linux$
```

2. After uninstallation is completed, check the folder “/opt/Toshiba/toolsutilities/tcxdisplay” is no any data.



4. Troubleshooting: Recovery of firmware update disruption.

Firmware flashing will be disrupted when there is power disruption to monitor or host system where the monitor is connected.

Example:

(i) Power shut down of host system during the FW update.

(ii) Unplug of USB plus power 12V/5V cable from monitor during the FW update.

(iii) Unplug of DC 12V cable from monitor during the FW update

To recover/resume the firmware update, User needs to reboot the host system upon the recovery of the power disruption. MUU will carry out the firmware update to the component(s) where last disruption occurs.

5. Monitor Update Utility support the Command Line Interface

(CLI):

Monitor Update Utility can support the command line interface. Regarding the detail command list and the usage description, please refer to the document: "MonitorUpgrade Command Line Interface Specxxx.txt".

APPENDIX A:

How to install the required Python version (2.6 or upper version)

1. Connect the host with the internet and Run with the command to download the Python program:
"sudo apt-get install python" as below screenshot: (Ubuntu 32 or 64 bit Environment)

```
sampo@sampo-4900785:~$ sudo apt-get install python
```

2. Check the python version with the command and need to be 2.6 or upper version : "dpkg -l python"

(The below showing example is version 2.7.5 in 32 bit and version 2.7.11 in 64 bit and it is upper than 2.6, so this version is ok.)

(32 bit Environment)

```
sampo@sampo-4900786:~$ dpkg -l python
Desired=Unknown/Install/Remove/Purge/Hold
| Status=Not/Inst/Conf-files/Unpacked/halF-conf/Half-inst/trig-aWait/Trig-pend
|/ Err?=(none)/Reinst-required (Status,Err: uppercase=bad)
||/ Name          Version          Architecture     Description
+++-----+-----+-----+-----+
ii python          2.7.5-Subuntu3   i386             interactive high-level object-oriented languag
```

(64 bit Environment)

```
sampo@sampo-4900785:~$ dpkg -l python
Desired=Unknown/Install/Remove/Purge/Hold
| Status=Not/Inst/Conf-files/Unpacked/halF-conf/Half-inst/trig-aWait/Trig-pend
|/ Err?=(none)/Reinst-required (Status,Err: uppercase=bad)
||/ Name          Version          Architecture     Description
+++-----+-----+-----+-----+
rc python          2.7.11-1         amd64            interactive high-level object-ori
```


APPENDIX B:

How to install the required libusb version (1.0.8 or upper version)

1. Connect the host with the internet and Run with the command: “`sudo apt-get install libusb-1.0-0`” as below screenshot: (it can download the latest version and will be upper than 1.0.8 version)

32Bit Environment:

```
sampo@sampo-4900786: ~  
sampo@sampo-4900786:~$ sudo apt-get install libusb-1.0-0  
[sudo] password for sampo:  
Reading package lists... Done  
Building dependency tree  
Reading state information... Done  
libusb-1.0-0 is already the newest version.  
0 upgraded, 0 newly installed, 0 to remove and 635 not upgraded.  
sampo@sampo-4900786:~$
```

64Bit Environment:

```
root@sampo-4900785: /home/sampo  
sampo@sampo-4900785:~$ sudo su  
[sudo] password for sampo:  
root@sampo-4900785:/home/sampo# sudo apt-get install libusb-1.0-0  
Reading package lists... Done  
Building dependency tree  
Reading state information... Done  
libusb-1.0-0 is already the newest version (2:1.0.20-1).  
0 upgraded, 0 newly installed, 0 to remove and 654 not upgraded.  
root@sampo-4900785:/home/sampo#
```

2. Check the libusb version with command: “`dpkg -l libusb*`” to confirm the version is upper than 1.0.8.

32Bit Environment:

```
sampo@sampo-4900786:~$ dpkg -l libusb*  
Desired=Unknown/Install/Remove/Purge/Hold  
| Status=Not/Inst/Conf-files/Unpacked/halF-conf/Half-inst/trig-aWait/Trig-pend  
|/ Err?=(none)/Reinst-required (Status,Err: uppercase=bad)  
||/ Name Version Architecture Description  
+++-+-----+-----+-----+-----+  
ii libusb-0.1-4:i386 2:0.1.12-23.3ub i386 userspace USB programming library  
ii libusb-1.0-0:i386 2:1.0.17-1ubun i386 userspace USB programming library  
ii libusb-1.0-0-dbg:i386 2:1.0.17-1ubun i386 userspace USB programming library development  
ii libusb-1.0-0-dev:i386 2:1.0.17-1ubun i386 userspace USB programming library development  
ii libusb-1.0-doc 2:1.0.17-1ubun all documentation for userspace USB programming  
ii libusb-dev 2:0.1.12-23.3ub i386 userspace USB programming library development  
un libusb0 <none> <none> (no description available)  
ii libusbmuxd2 1.0.8-2ubuntu1 i386 USB multiplexor daemon for iPhone and iPod Tou
```

64Bit Environment:

```
sampo@sampo-4900785: ~  
sampo@sampo-4900785:~$ dpkg -l libusb*  
Desired=Unknown/Install/Remove/Purge/Hold  
| Status=Not/Inst/Conf-files/Unpacked/halF-conf/Half-inst/trig-aWait/Trig-pend  
|/ Err?=(none)/Reinst-required (Status,Err: uppercase=bad)  
||/ Name Version Architecture Description  
+++-+-----+-----+-----+-----+  
ii libusb-0.1-4:a 2:0.1.12-20 amd64 userspace USB programming library  
ii libusb-1.0-0:a 2:1.0.20-1 amd64 userspace USB programming library  
un libusb-dev <none> <none> (no description available)  
un libusbmuxd-too <none> <none> (no description available)  
ii libusbmuxd4:am 1.0.10-2ubun amd64 USB multiplexor daemon for iPhone  
sampo@sampo-4900785:~$
```