

UPDATING FIRMWARE PS360+

Updating your PS360+ Firmware (Ubuntu Version)

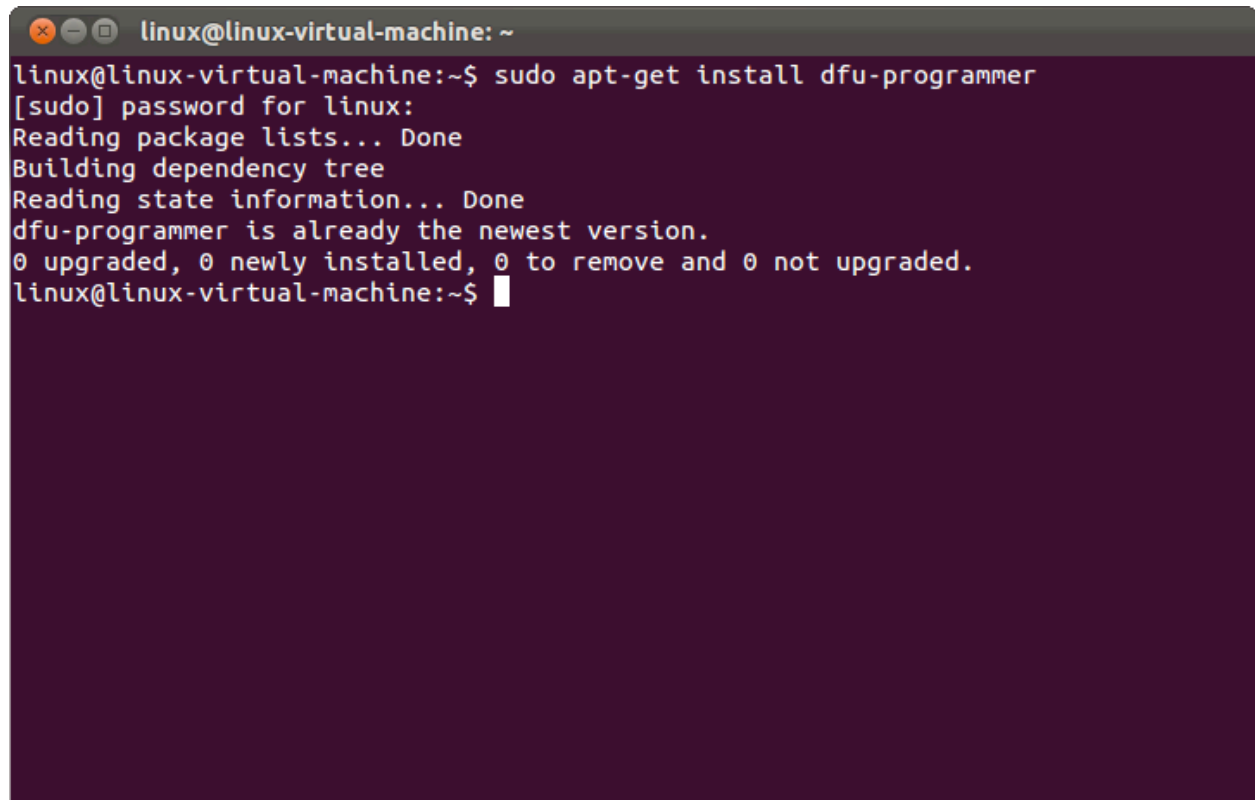
Linux (Ubuntu v9.10 or higher)

(The reason this tutorial uses "Ubuntu v9.10 or higher" is because it supports the most recent build of the dfu-programmer which is what we want).

1. Download DFU-Programmer:
<http://dfu-programmer.sourceforge.net/>
Extract the file to the desktop.
2. Start the terminal by clicking: Ctrl + Alt + T.

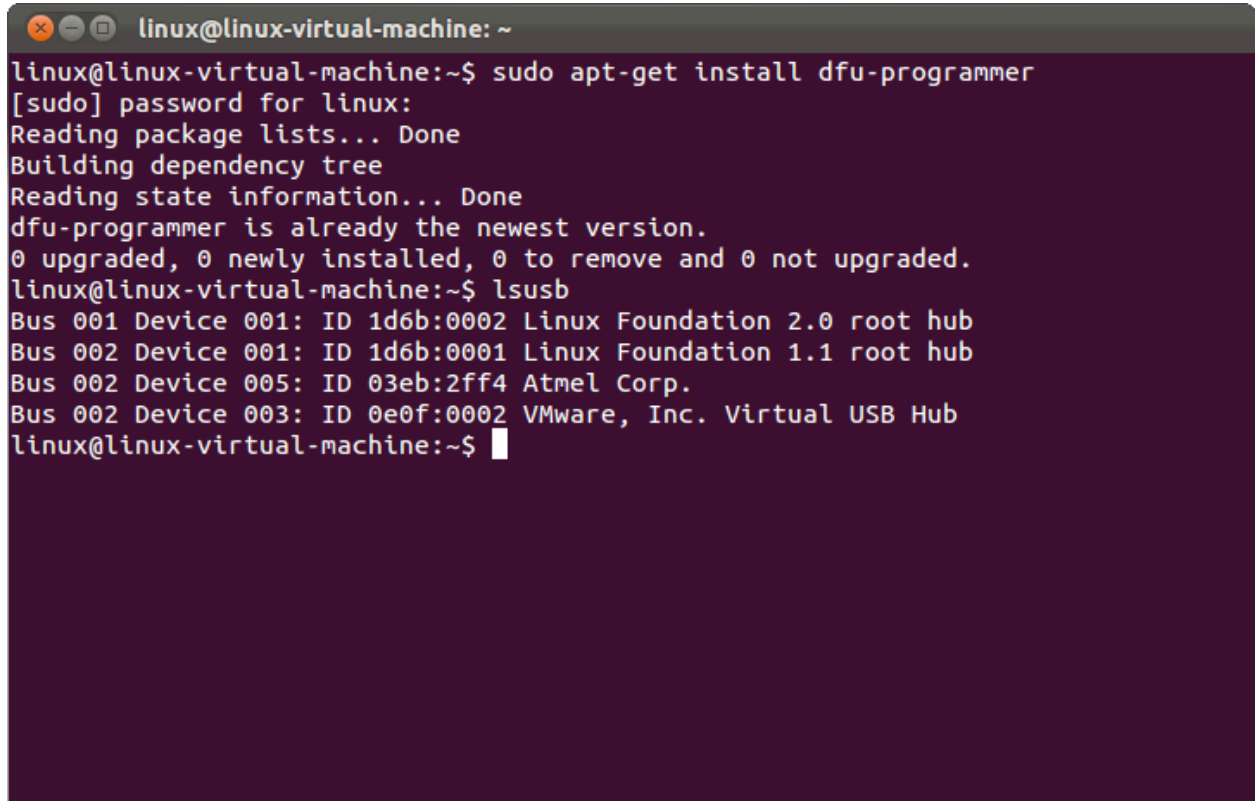
```
linux@linux-virtual-machine: ~  
linux@linux-virtual-machine:~$
```

3. Write: *sudo apt-get install dfu-programmer* and hit enter.
Enter password also (if it asks for it) and hit enter again.

A terminal window with a dark purple background and a grey title bar. The title bar contains three window control icons (close, minimize, maximize) and the text 'linux@linux-virtual-machine: ~'. The terminal shows the command 'linux@linux-virtual-machine:~\$ sudo apt-get install dfu-programmer' being entered. The output follows: '[sudo] password for linux:', 'Reading package lists... Done', 'Building dependency tree', 'Reading state information... Done', 'dfu-programmer is already the newest version.', and '0 upgraded, 0 newly installed, 0 to remove and 0 not upgraded.'. The prompt 'linux@linux-virtual-machine:~\$' is shown again with a cursor.

```
linux@linux-virtual-machine: ~
linux@linux-virtual-machine:~$ sudo apt-get install dfu-programmer
[sudo] password for linux:
Reading package lists... Done
Building dependency tree
Reading state information... Done
dfu-programmer is already the newest version.
0 upgraded, 0 newly installed, 0 to remove and 0 not upgraded.
linux@linux-virtual-machine:~$
```

4. Hold down the start button on PS360+ and connect the USB cable.
To make sure it recognizes the PS360+ in bootloader mode go to the Terminal and type: *lsusb*



```
linux@linux-virtual-machine: ~  
linux@linux-virtual-machine:~$ sudo apt-get install dfu-programmer  
[sudo] password for linux:  
Reading package lists... Done  
Building dependency tree  
Reading state information... Done  
dfu-programmer is already the newest version.  
0 upgraded, 0 newly installed, 0 to remove and 0 not upgraded.  
linux@linux-virtual-machine:~$ lsusb  
Bus 001 Device 001: ID 1d6b:0002 Linux Foundation 2.0 root hub  
Bus 002 Device 001: ID 1d6b:0001 Linux Foundation 1.1 root hub  
Bus 002 Device 005: ID 03eb:2ff4 Atmel Corp.  
Bus 002 Device 003: ID 0e0f:0002 VMware, Inc. Virtual USB Hub  
linux@linux-virtual-machine:~$
```

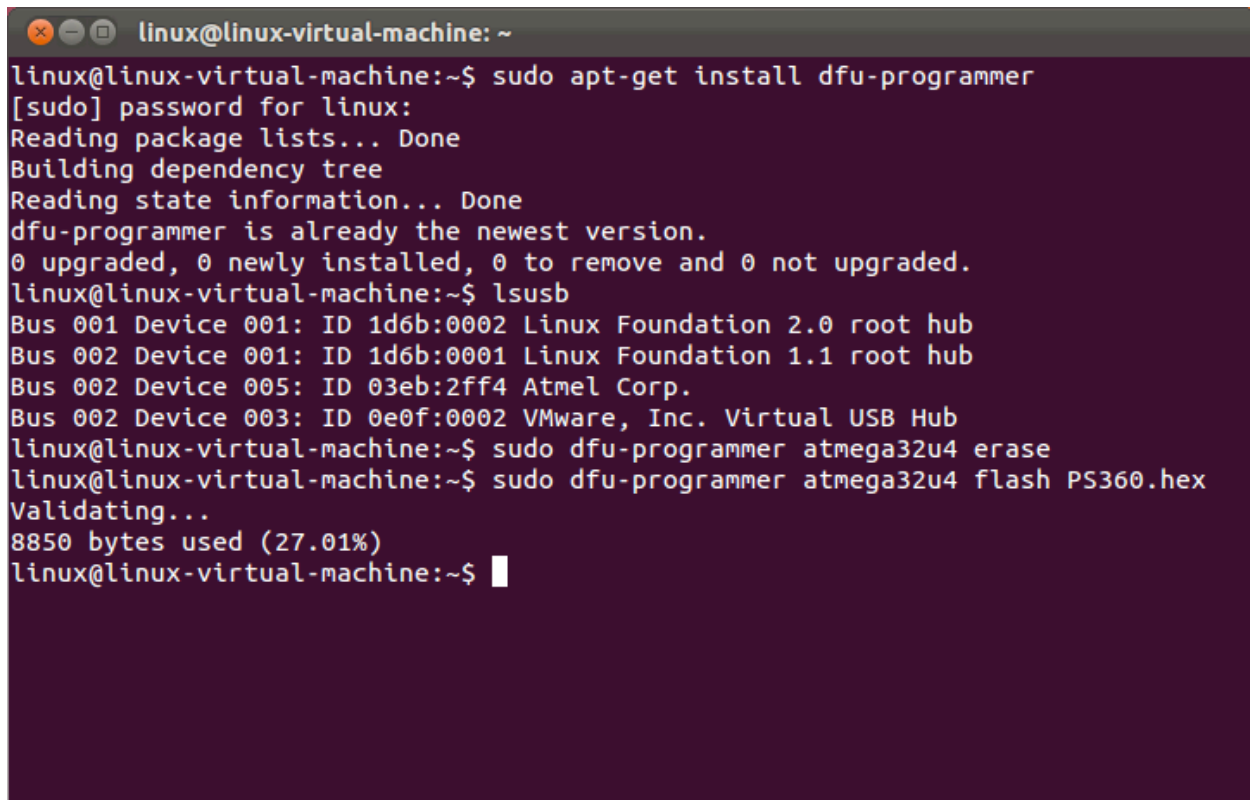
5. Erase the PS360+ first by typing this in the Terminal:
sudo dfu-programmer atmega32u4 erase

```
linux@linux-virtual-machine: ~  
linux@linux-virtual-machine:~$ sudo apt-get install dfu-programmer  
[sudo] password for linux:  
Reading package lists... Done  
Building dependency tree  
Reading state information... Done  
dfu-programmer is already the newest version.  
0 upgraded, 0 newly installed, 0 to remove and 0 not upgraded.  
linux@linux-virtual-machine:~$ lsusb  
Bus 001 Device 001: ID 1d6b:0002 Linux Foundation 2.0 root hub  
Bus 002 Device 001: ID 1d6b:0001 Linux Foundation 1.1 root hub  
Bus 002 Device 005: ID 03eb:2ff4 Atmel Corp.  
Bus 002 Device 003: ID 0e0f:0002 VMware, Inc. Virtual USB Hub  
linux@linux-virtual-machine:~$ sudo dfu-programmer atmega32u4 erase  
linux@linux-virtual-machine:~$
```

6. Flash the PS360+ by typing this in the Terminal:

sudo dfu-programmer atmega32u4 flash "name of file".hex

(Do not include the quotation marks when you write the name of your file)

A terminal window titled 'linux@linux-virtual-machine: ~' with a dark purple background. The text inside shows the following commands and output:

```
linux@linux-virtual-machine:~$ sudo apt-get install dfu-programmer
[sudo] password for linux:
Reading package lists... Done
Building dependency tree
Reading state information... Done
dfu-programmer is already the newest version.
0 upgraded, 0 newly installed, 0 to remove and 0 not upgraded.
linux@linux-virtual-machine:~$ lsusb
Bus 001 Device 001: ID 1d6b:0002 Linux Foundation 2.0 root hub
Bus 002 Device 001: ID 1d6b:0001 Linux Foundation 1.1 root hub
Bus 002 Device 005: ID 03eb:2ff4 Atmel Corp.
Bus 002 Device 003: ID 0e0f:0002 VMware, Inc. Virtual USB Hub
linux@linux-virtual-machine:~$ sudo dfu-programmer atmega32u4 erase
linux@linux-virtual-machine:~$ sudo dfu-programmer atmega32u4 flash PS360.hex
Validating...
8850 bytes used (27.01%)
linux@linux-virtual-machine:~$
```

Remember to have the hex file in the Home folder otherwise it will not find it.

7. Done.