

UPDATING FIRMWARE PS360+

Pre-Update Procedure (Windows Version)

1. In order to update the firmware on the PS360+ you must install Atmel's free FLIP (FLexible In-system Programmer) software. You'll also need to have Java installed. If you don't have it installed, you can download the special version of FLIP that includes the Java runtime.

Atmel software page:

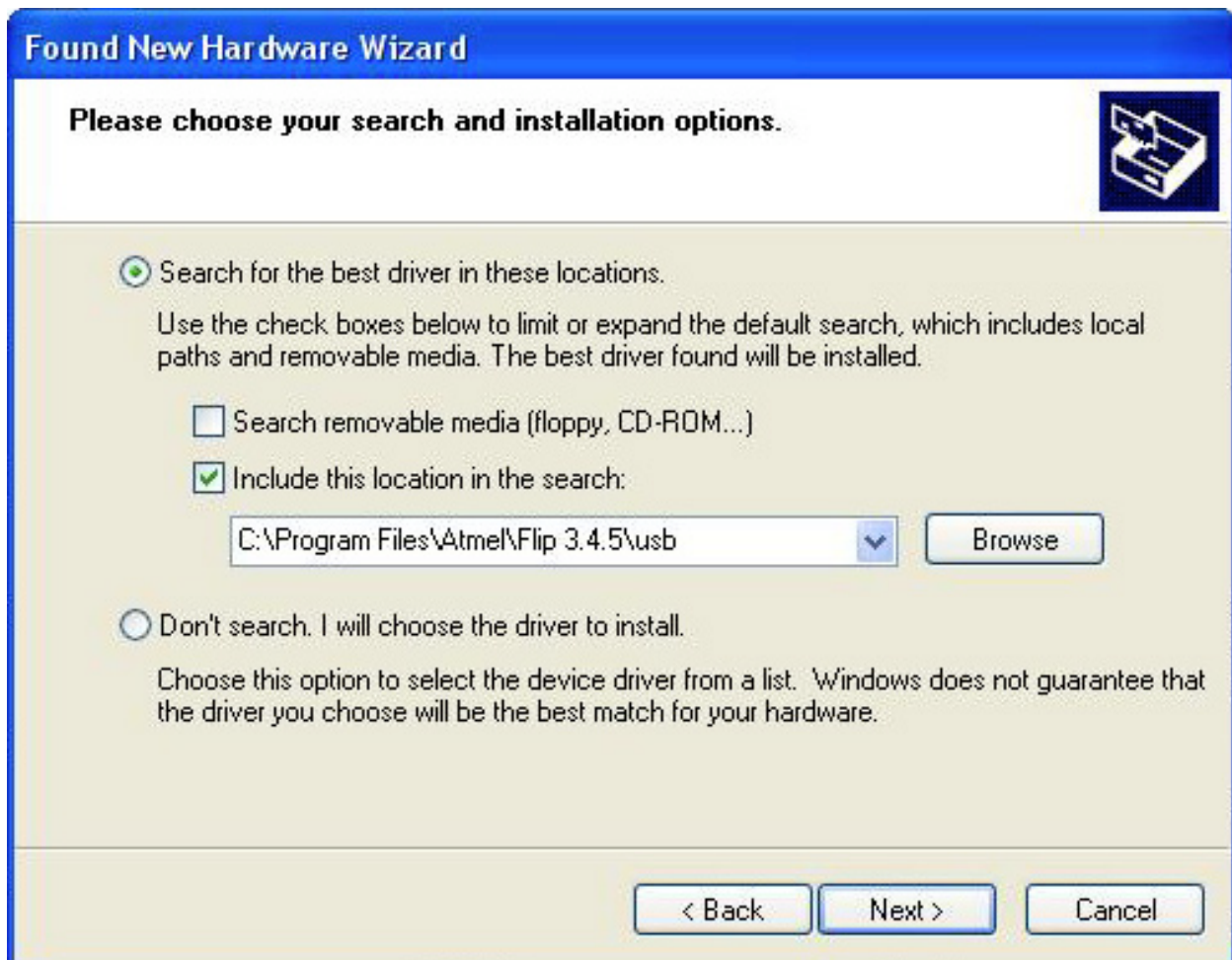
http://www.atmel.com/dyn/products/tools_card.asp?tool_id=3886

2. And if this is your first time connecting the PS360+ to your Windows PC in Bootloader Mode you will probably get the "New Hardware" dialog box. You will need to load a driver that tells Windows what kind of device it is and how to access it (you just need to point it to Atmel's .INF file).

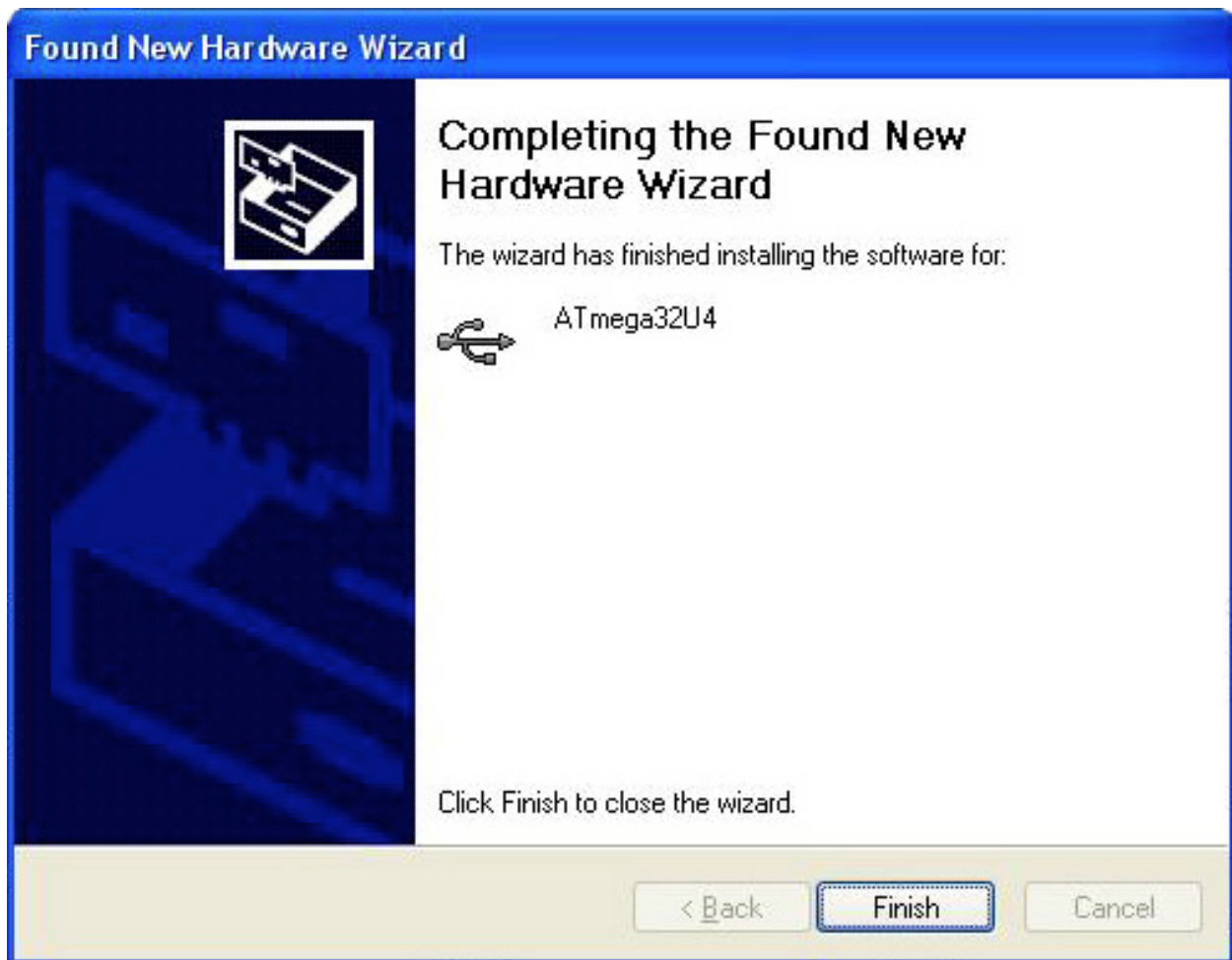
Please follow the picture tutorial below...



Click on "Install from a list or specific location (Advanced)" and click "Next".



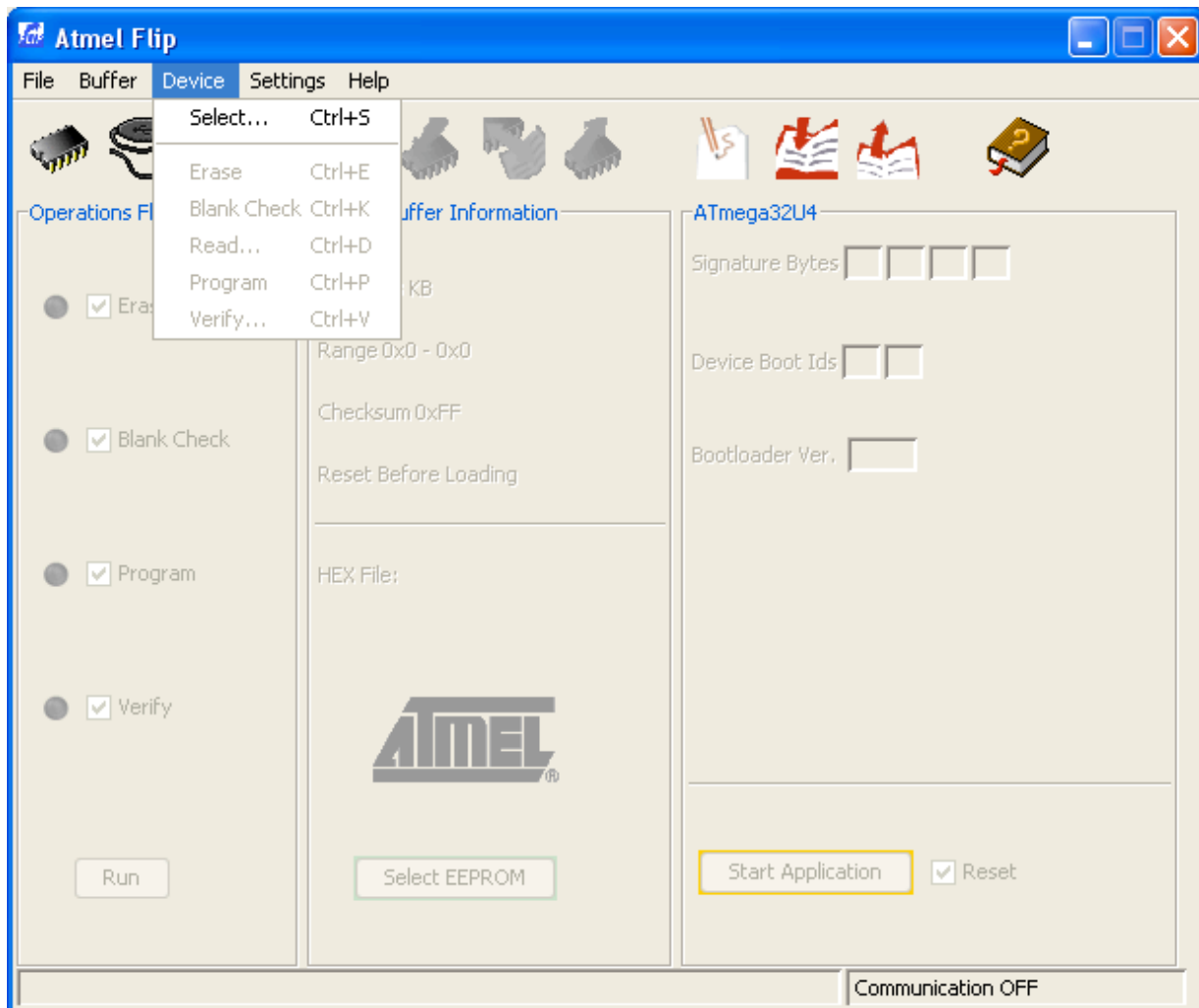
Check the box “Include this location in the search” and click browse, find where your Flip directory is and you will find the correct “usb” folder (in the picture you can see an example of this). Click “Next” and it will start the install.



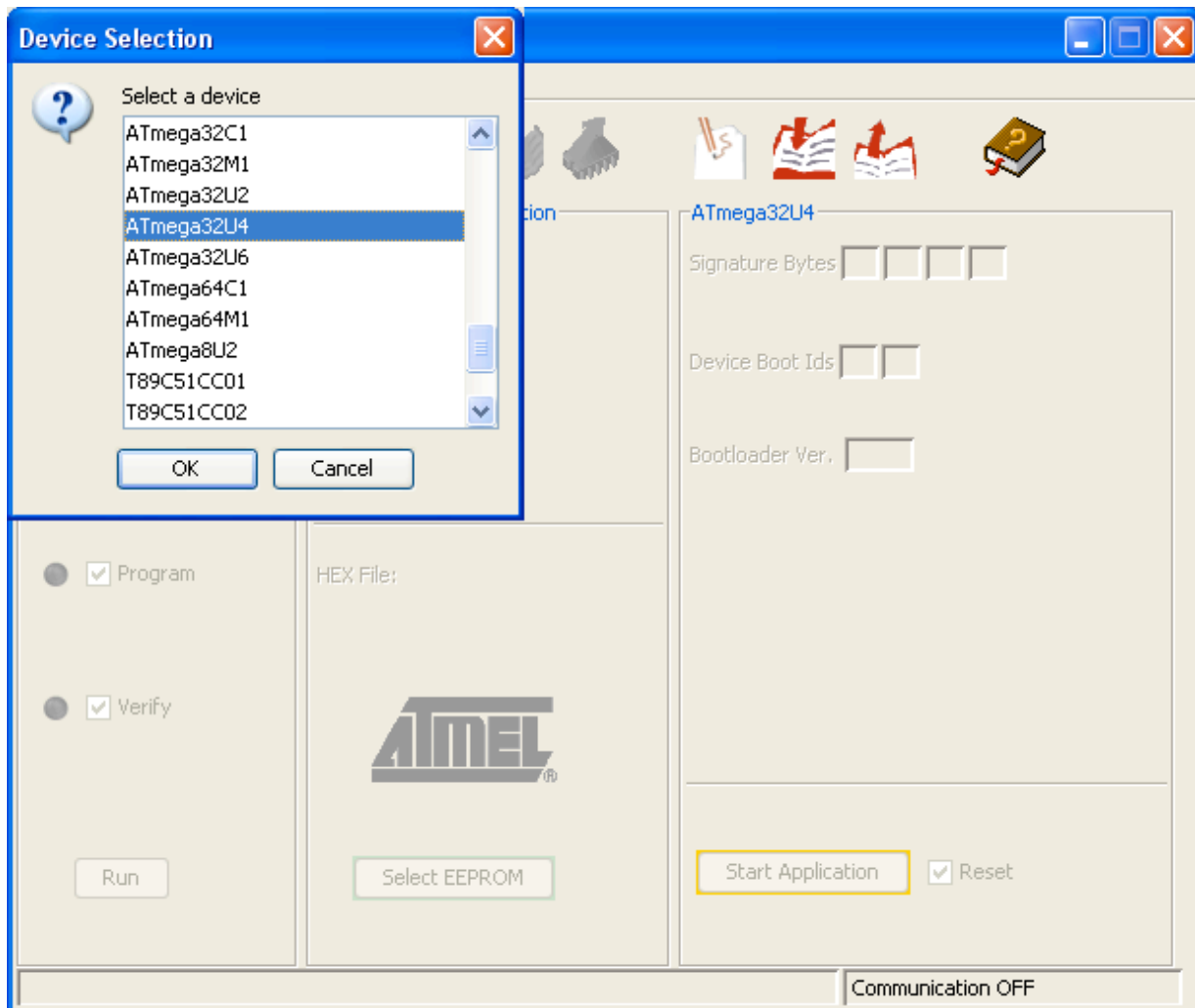
Now it has finished installing and you should now be able to use the FLIP program to update the firmware on your PS360+.
Please disconnect the USB cable and go on to the next step.

Updating your PS360+ Firmware (Windows Version)

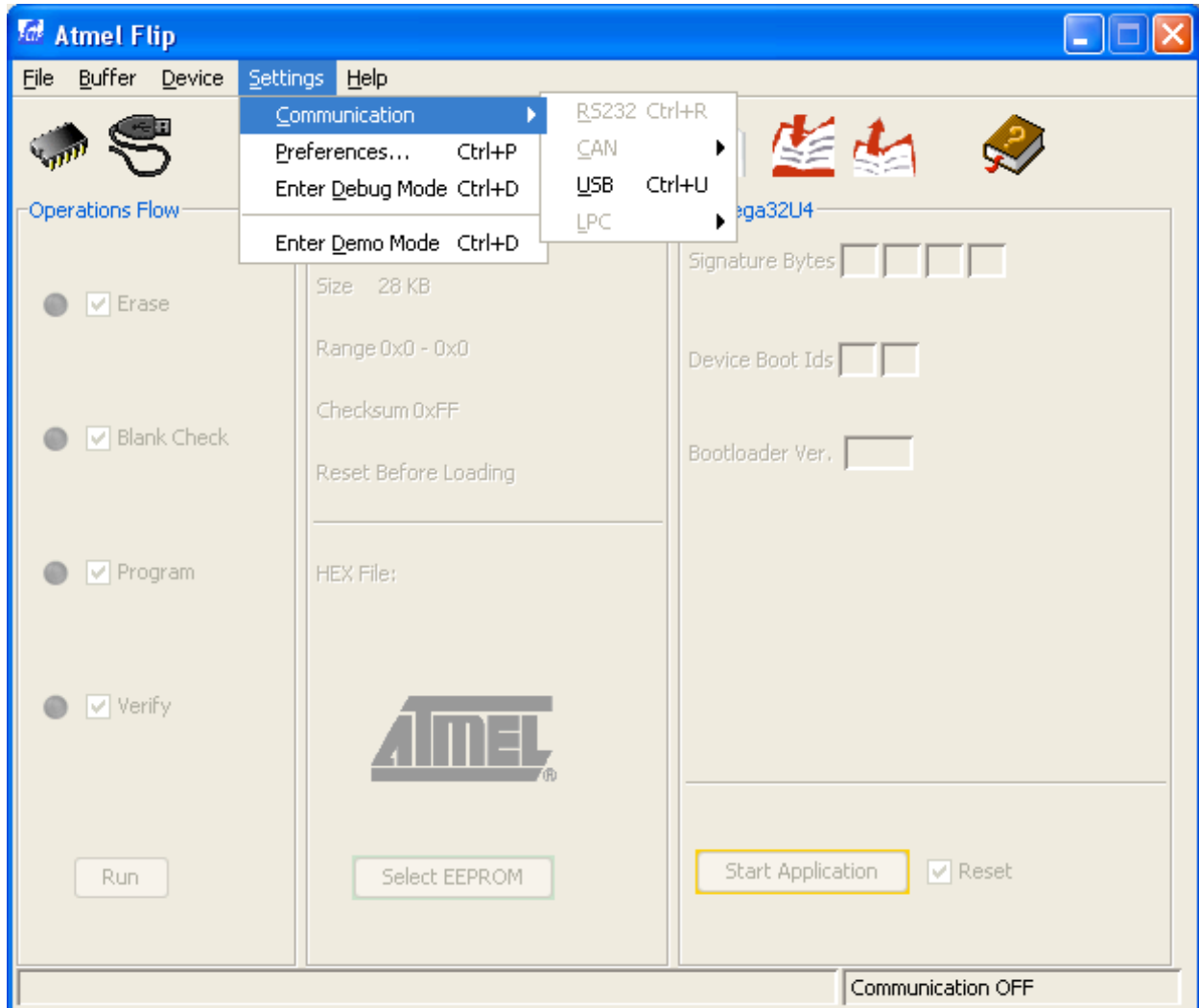
1. Plug in your arcade stick with the START-button held down. You should hear the USB connection sound and the player LEDs will begin to cycle in a distinct back and forth rolling pattern (it will NOT show up in the game controller applet as it is not an HID based bootloader).



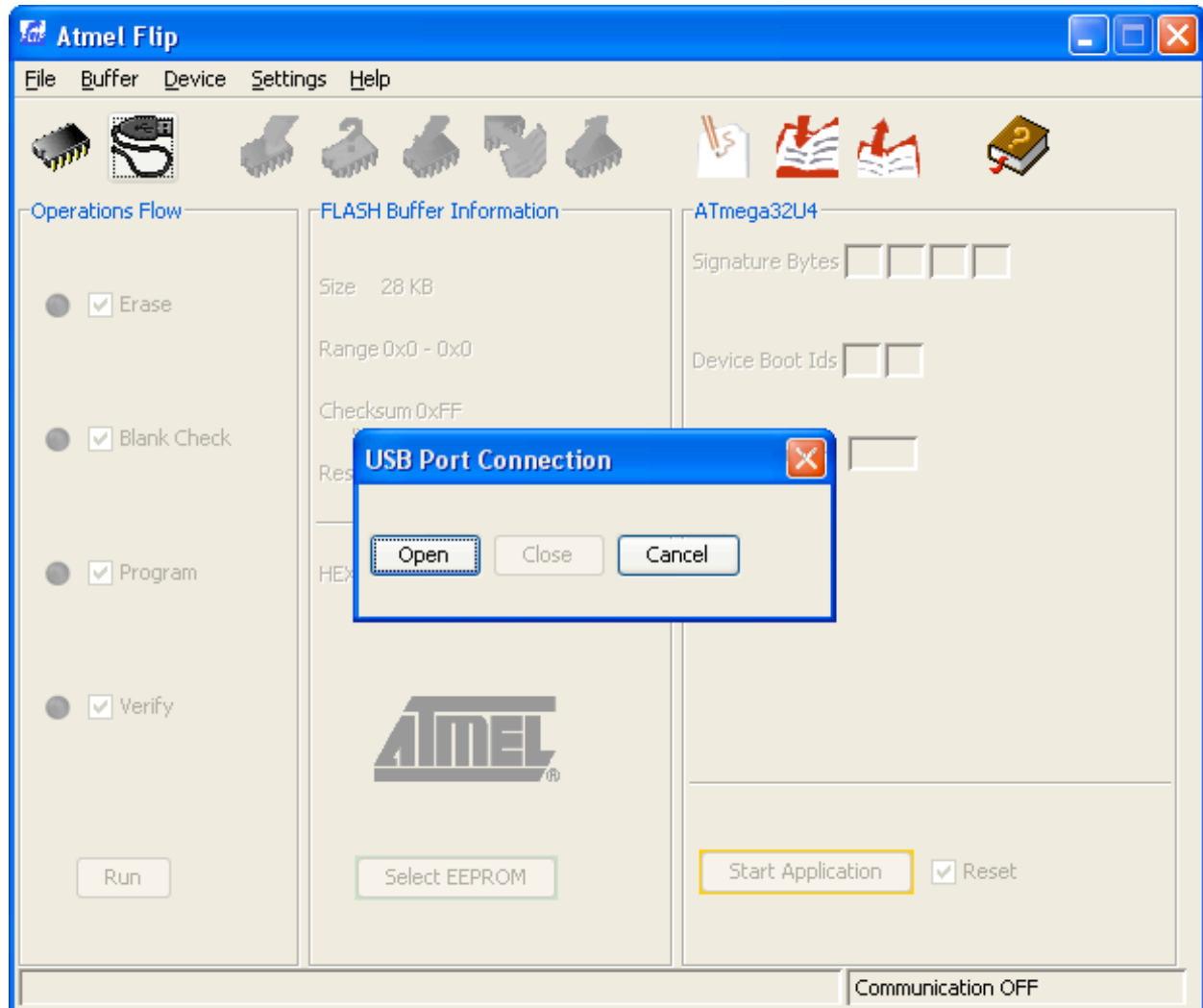
2. Open FLIP, in the top menu click Device -> Select and in the pop up select "Atmega32U4".



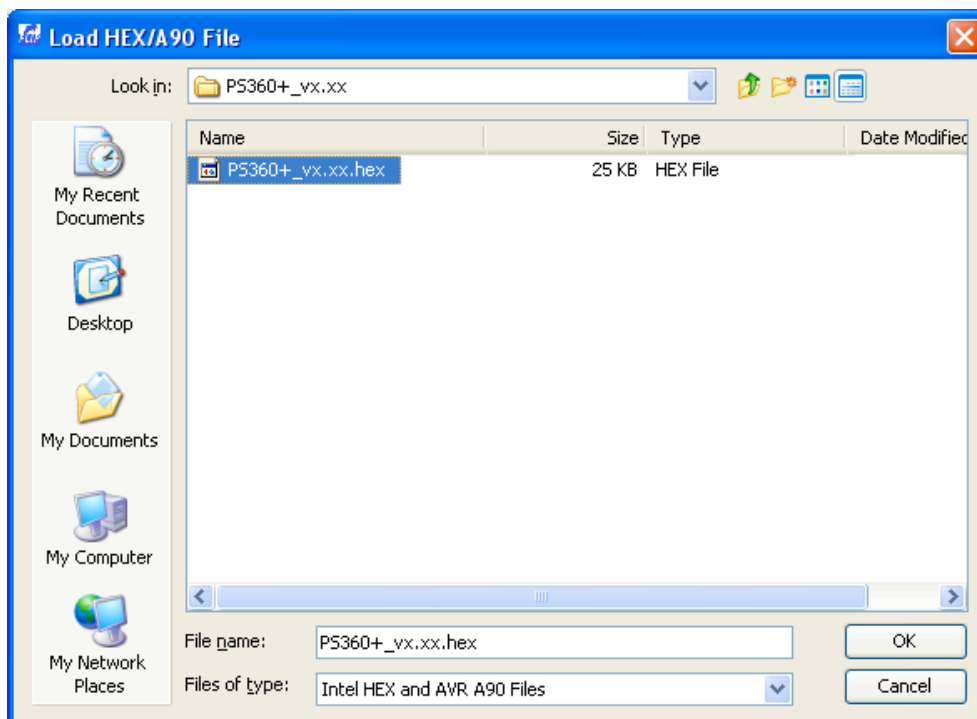
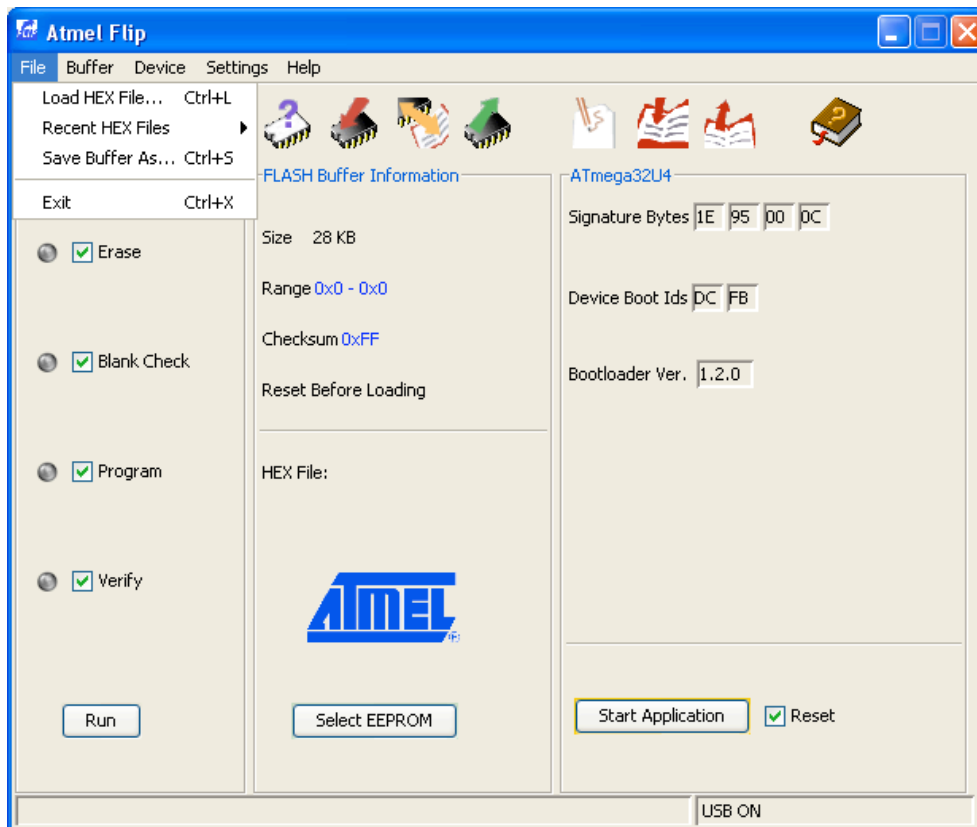
3. Click Settings -> Communications -> USB.



4. In the "USB Port Connection" window click "Open".

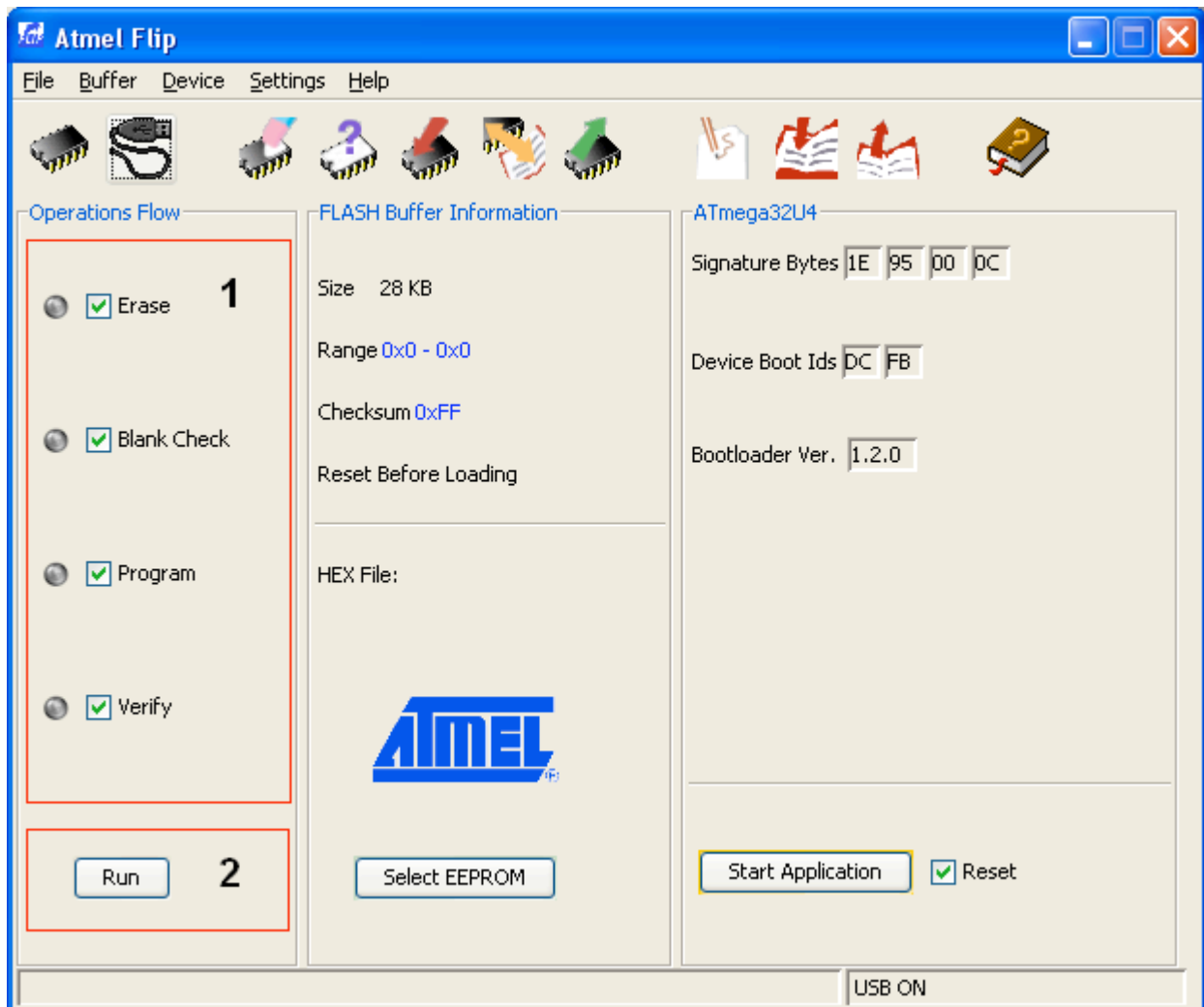


5. Click File -> Load Hex File. Browse to the PS360+.hex firmware file and click "OK".

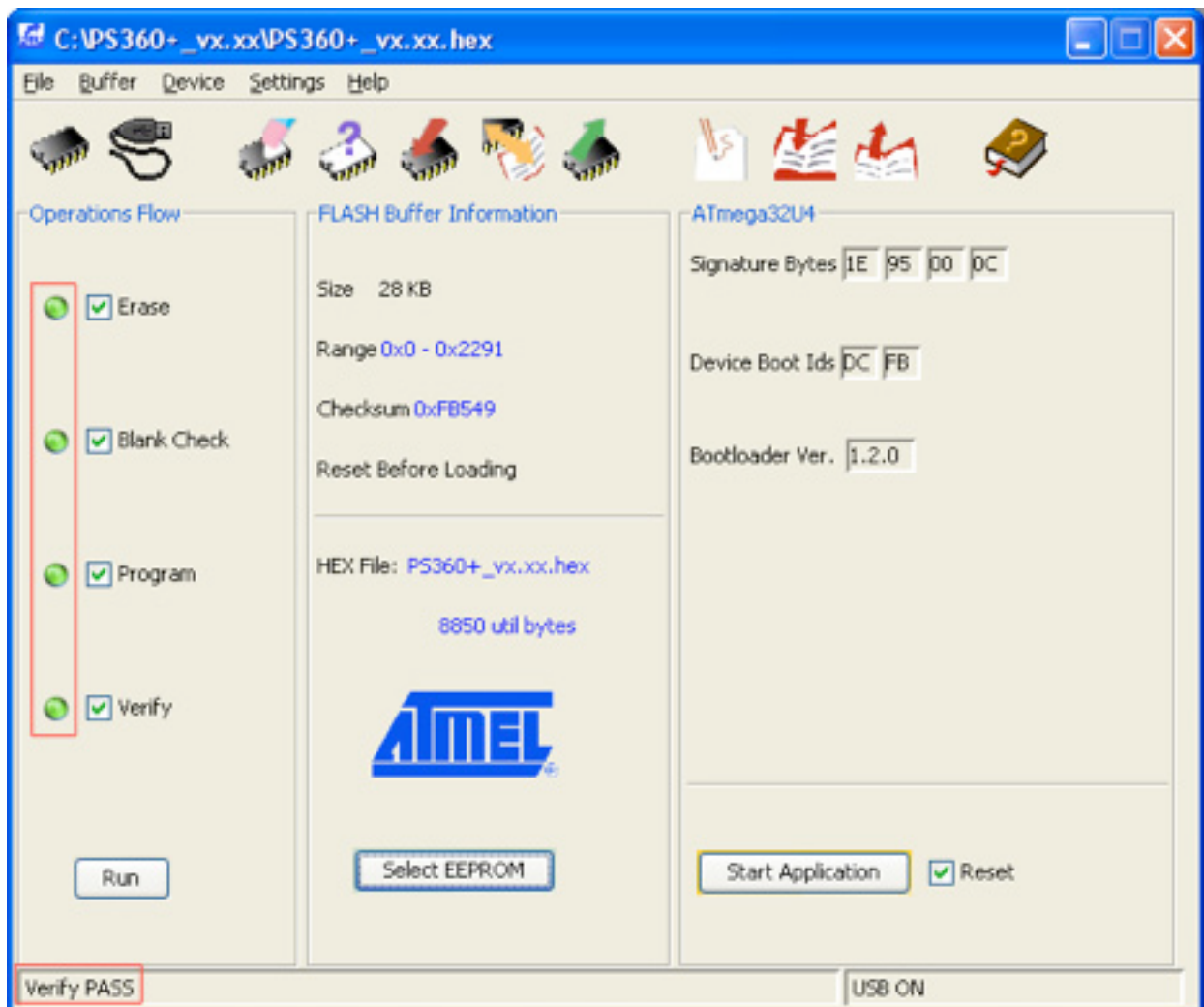


6.1 On the left side, verify that the 4 boxes are checked, they should already be by default: "**Erase**" "**Blank Check**" "**Program**" "**Verify**".

6.2 Click "Run". You will see a dialog pop up with status messages of the update, you will also see all 4 player LEDs on the PS360+ become solid during this time, indicating activity.



7. Once complete, you will see the bubbles next to the check boxes become **green**, and at the bottom “**Verify PASS**” should be present to indicate the final step was completed. After this, close out of the program and unplug the stick from the PC.



Pre-Update Procedure (Mac Version)

NOTE: It is sometimes hard to get the dfu-programmer working without some tweaking but on the majority of setups it works right away.

Before you can update anything on the PS360+ with the Mac you need to install a few things first.

1. Download XCode from here (you need to register but it is free):

<http://developer.apple.com/technologies/xcode.html>

When you have registered:

1. Log in to **developer.apple.com**

2. Click the **Resources** link at the top of the page.

3. Under Mac OS X, click **Mac OS X Downloads**.

4. Uncheck all categories except **Developer Tools** on the left side of the page. All versions of XCode will be listed so find the correct one for you.

XCode on different OS X versions:

OS X Lion: 4.1 to 4.3.

OS X Snow Leopard: 3.2 to 4.2

OSX Leopard: 3.1 to 3.1.x.

OSX Tiger: 2.0 to 2.x

2. Download MacPorts:

<http://www.macports.org/install.php>

3. Install XCode.

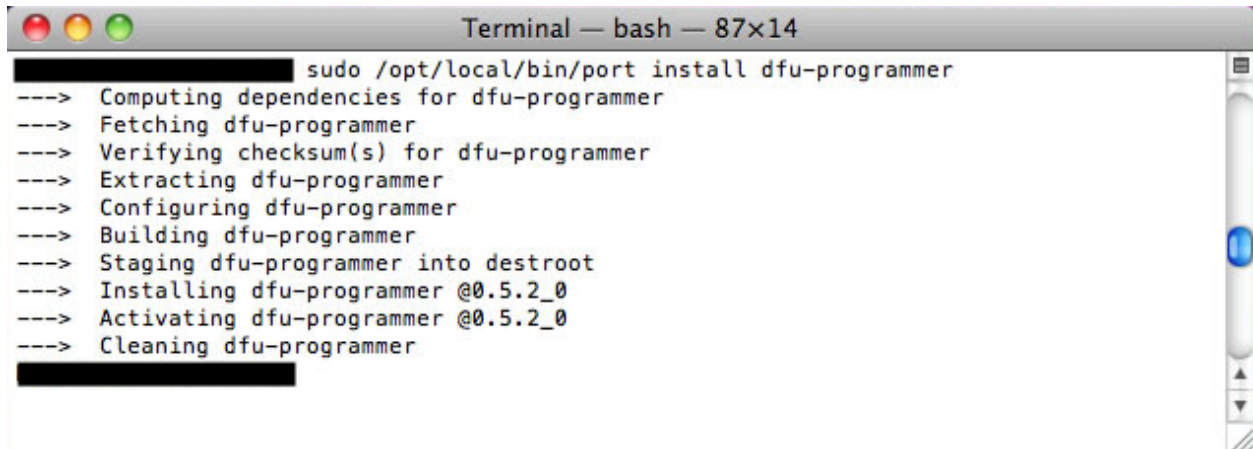
4. Install MacPorts.

Updating your PS360+ Firmware (Mac Version)

1. Go to the Terminal and write (and afterwards hit enter):

```
sudo /opt/local/bin/port install dfu-programmer
```

Now the programmer should get installed and you should see around 10 rows with text.

A screenshot of a Mac Terminal window titled "Terminal — bash — 87x14". The window shows the command `sudo /opt/local/bin/port install dfu-programmer` being executed. The output consists of ten lines of status messages, each preceded by "---->". The messages are: "Computing dependencies for dfu-programmer", "Fetching dfu-programmer", "Verifying checksum(s) for dfu-programmer", "Extracting dfu-programmer", "Configuring dfu-programmer", "Building dfu-programmer", "Staging dfu-programmer into destroot", "Installing dfu-programmer @0.5.2_0", "Activating dfu-programmer @0.5.2_0", and "Cleaning dfu-programmer". The terminal has a standard Mac OS X window interface with red, yellow, and green window control buttons in the top-left corner and a vertical scrollbar on the right side.

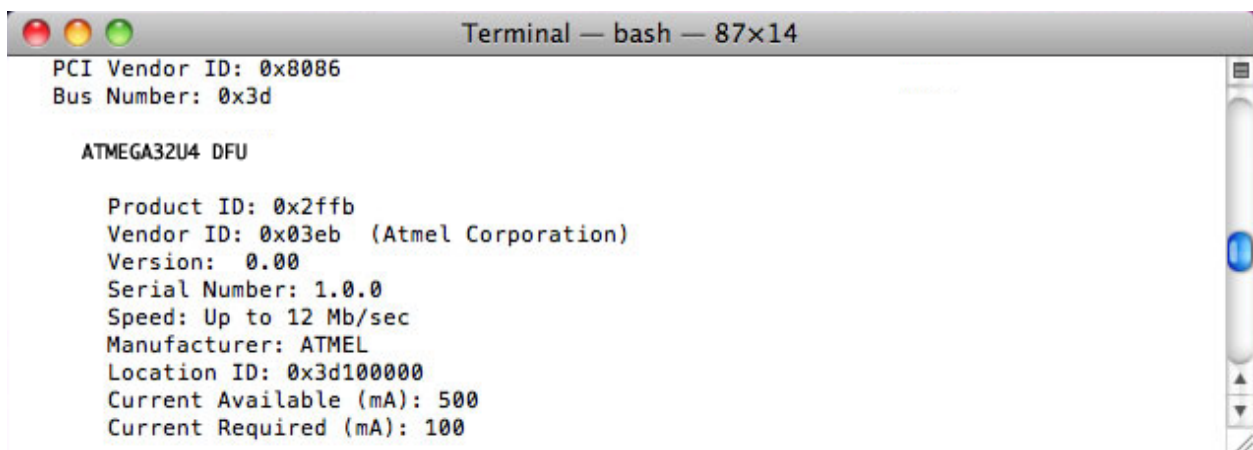
```
Terminal — bash — 87x14
----> sudo /opt/local/bin/port install dfu-programmer
----> Computing dependencies for dfu-programmer
----> Fetching dfu-programmer
----> Verifying checksum(s) for dfu-programmer
----> Extracting dfu-programmer
----> Configuring dfu-programmer
----> Building dfu-programmer
----> Staging dfu-programmer into destroot
----> Installing dfu-programmer @0.5.2_0
----> Activating dfu-programmer @0.5.2_0
----> Cleaning dfu-programmer
```

2. Restart the Terminal

3. Put PS360+ in Bootloader Mode by inserting the USB cable with Start held down.

You can check so it is correct by writing in the Terminal (and afterwards hit enter):

```
system_profiler SPUSBDataType
```

A screenshot of a Mac Terminal window titled "Terminal — bash — 87x14". The window shows the output of the command `system_profiler SPUSBDataType`. The output is organized into sections. The first section is "PCI Vendor ID: 0x8086" and "Bus Number: 0x3d". The second section is "ATMEGA32U4 DFU", which contains several lines of information: "Product ID: 0x2fffb", "Vendor ID: 0x03eb (Atmel Corporation)", "Version: 0.00", "Serial Number: 1.0.0", "Speed: Up to 12 Mb/sec", "Manufacturer: ATMEL", "Location ID: 0x3d100000", "Current Available (mA): 500", and "Current Required (mA): 100". The terminal has a standard Mac OS X window interface with red, yellow, and green window control buttons in the top-left corner and a vertical scrollbar on the right side.

```
Terminal — bash — 87x14
PCI Vendor ID: 0x8086
Bus Number: 0x3d

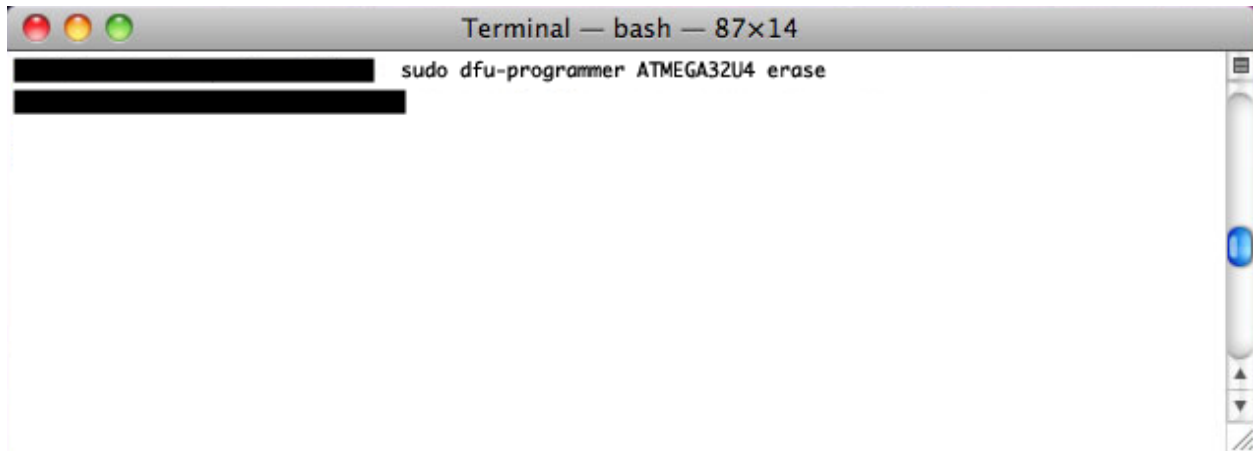
ATMEGA32U4 DFU

Product ID: 0x2fffb
Vendor ID: 0x03eb (Atmel Corporation)
Version: 0.00
Serial Number: 1.0.0
Speed: Up to 12 Mb/sec
Manufacturer: ATMEL
Location ID: 0x3d100000
Current Available (mA): 500
Current Required (mA): 100
```

4. Erase the PS360+:

Write in the Terminal (and afterwards hit enter):

sudo dfu-programmer atmega32u4 erase

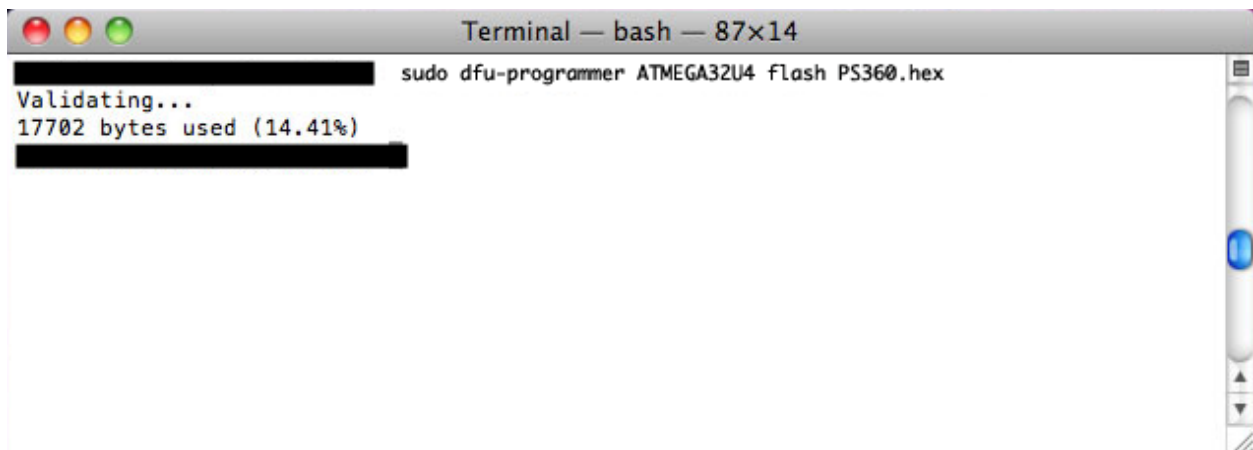
A screenshot of a macOS Terminal window titled "Terminal — bash — 87x14". The window shows a black rectangular redaction box covering the user's name and the command "sudo dfu-programmer ATMEGA32U4 erase" has been entered. The cursor is at the end of the command line. The terminal has standard macOS window controls (red, yellow, green buttons) and a scrollbar on the right.

5. Flash the PS360+:

Write in the Terminal (and afterwards hit enter):

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

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

A screenshot of a macOS Terminal window titled "Terminal — bash — 87x14". The window shows a black rectangular redaction box covering the user's name. The command "sudo dfu-programmer ATMEGA32U4 flash PS360.hex" has been entered. The output of the command is visible: "Validating..." followed by "17702 bytes used (14.41%)". The terminal has standard macOS window controls and a scrollbar on the right.

6. Done.

AKISHOP CUSTOMS

Updating your PS360+ Firmware (Ubuntu Version)

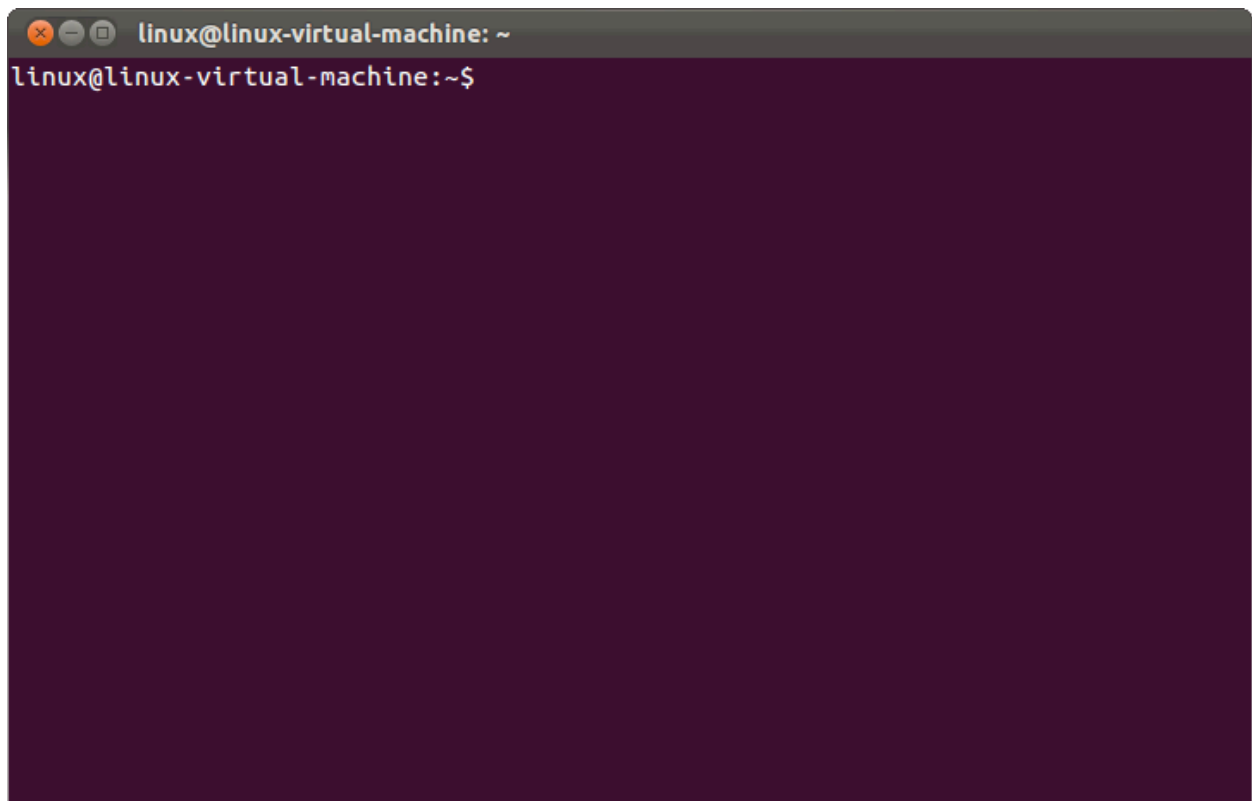
Linux (Ubuntu v9.10 or higher)

(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).

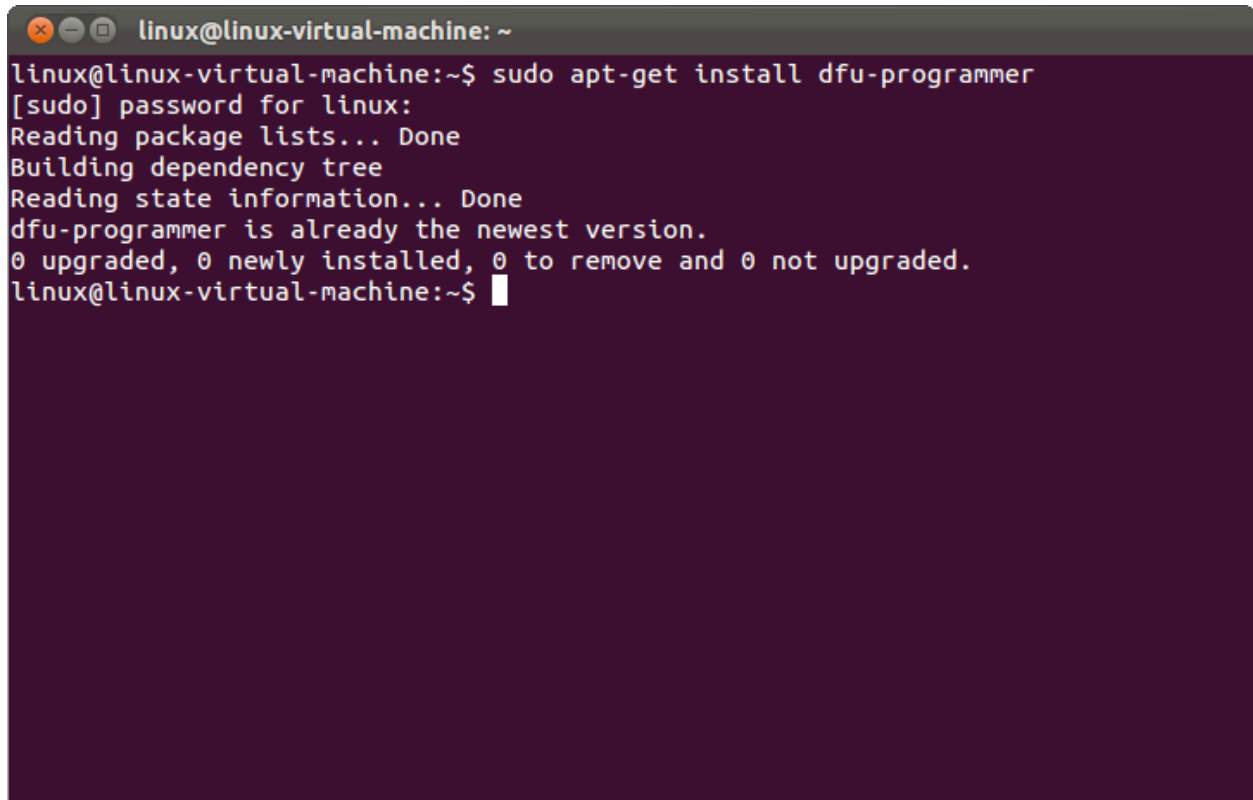
1. Download DFU-Programmer:
<http://dfu-programmer.sourceforge.net/>

Extract the file to the desktop.

2. Start the terminal by clicking: Ctrl + Alt + T.



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 white cursor at the end.

```
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:~$
```

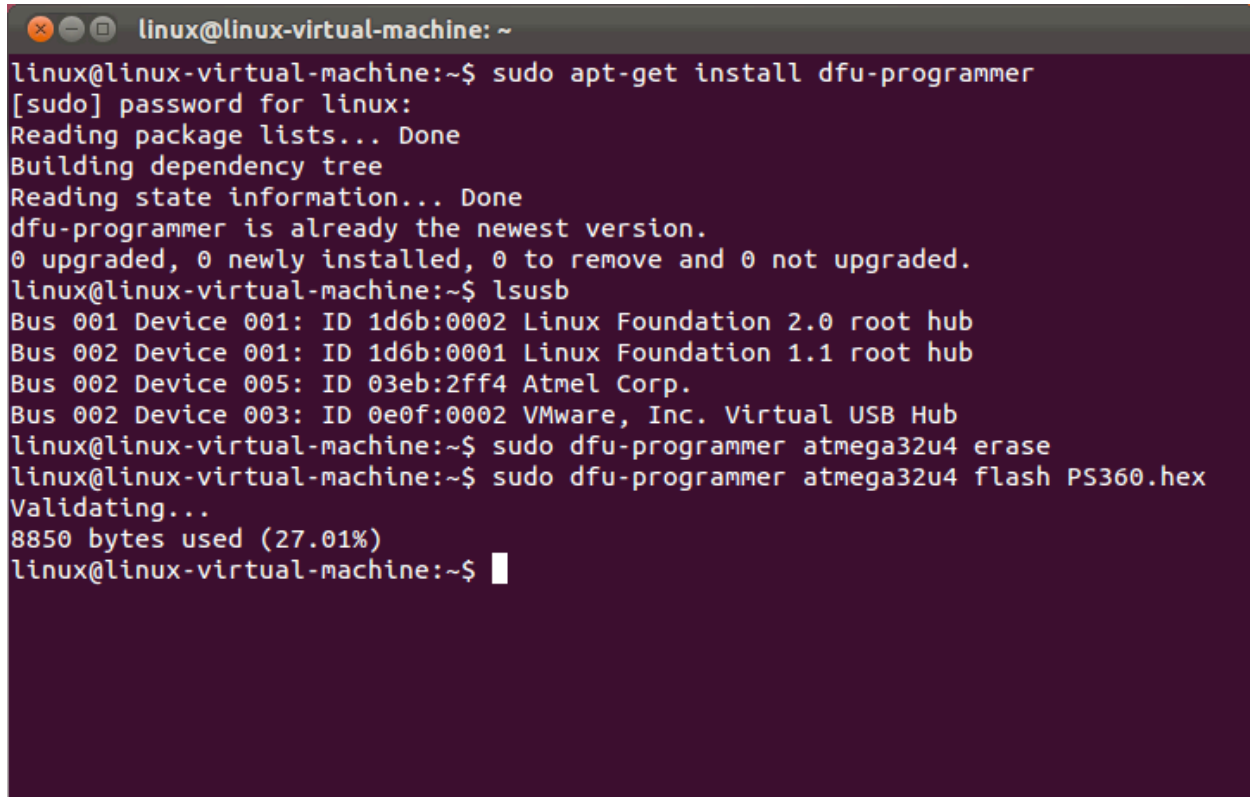
5. Erase the PS360+ first by typing this in the Terminal:
sudo dfu-programmer atmega32u4 erase

```
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 terminal 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.