

Fedora 15 Compile OpenCV-2.2.0 From Source

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Fedora Linux 15

Scope

This is a brief guide to compiling OpenCV on Fedora 15, since the package included with Fedora does not work with video, which makes it rather useless.

The biggest problem is finding a combination of software versions that work together and then a few small bugs need to be fixed which arose due to changes in the Linux kernel video drivers.

Read my other guides on X264 and FFmpeg and compile them first.

Download

It is important to use the correct old version of FFmpeg-0.6.3. Newer FFmpeg versions do not work with OpenCV versions 2.1, 2.2 or 2.3. The latest OpenCV version 2.3 has even more problems with CUDA and Sphinx and other stuff, so I gave up with that one and went one version back to 2.2.

Go to Source Forge and download the older version 2.2.0 of OpenCV:
<http://sourceforge.net/projects/opencvlibrary/files/opencv-unix/>

Unpack it:

```
$ tar -jxvf OpenCV-2.2.0.tar.bz2
$ cd OpenCV-2.2.0
$ mkdir release
$ cd release
```

Configure

Make an initial configuration file using cmake so that the GUI configuration tool ccmake won't just crash immediately:

```
$ cmake -D WITH_FFMPEG=ON -D CMAKE_INSTALL_PREFIX=/usr /home/data/
OpenCV/Source/OpenCV-2.2.0/release
```

In my case, ccmake didn't crash, but it also didn't work. However, the above parameters with cmake should be sufficient for FFmpeg support.

Build and Bug Fixes

Build OpenCV:

```
$ make
```

Bug fix for error: 'ptrdiff_t' does not name a type

```
$ gedit ../include/opencv/cxcore.hpp &
```

Above the other includes add:

```
#include <stddef.h>
```

Bug fix for /home/data/OpenCV/Source/OpenCV-2.2.0/modules/highgui/src/cap_v4l.cpp *fatal error: linux/videodev.h: No such file or directory*

Make sure that lib4vl-devel is installed, then:

```
$ gedit /home/data/OpenCV/Source/OpenCV-2.2.0/modules/highgui/src/cap_v4l.cpp &
```

and fix the following:

```
//#include <linux/videodev.h>
```

```
#include <libv4l1-videodev.h>
```

Install

Finally, if all went well so far:

```
$ su
```

```
password
```

```
# make install
```

La voila!

-- Herman