

Ubuntu opencv 笔记

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第一部分：安装与卸载 opencv

本部分目的：

- 1、查看 opencv 版本
- 2、安装 opencv
- 3、多个 opencv 版本切换
- 4、卸载 opencv

1.1 查看 opencv 版本

```
pkg-config --modversion opencv
```

1.2 安装 opencv

写的比较好的博客：

<https://blog.csdn.net/junmuzi/article/details/49888123>

<https://blog.csdn.net/bojackhosreman/article/details/78498522>

<https://blog.csdn.net/u013831198/article/details/72518867>

下面演示同时安装两个 opencv 版本，先安装 2.4.9 再安装 3.2.0

(1) 安装 opencv2.4.9

下载 opencv2.4.9

点击 [Sources](#) 下载 opencv2.4.9

将 opencv-2.4.9.zip 文件解压，并切换到 opencv2.4.9 目录下

```
unzip opencv-2.4.9.zip -d ~/
```

```
cd opencv-2.4.9/
```

默认配置编译安装，默认安装路径/usr/local

```
mkdir build

cd build

cmake ..

make

sudo make install
```

(2) 安装 opencv3.2.0 作为备用版本

下载 opencv3.2.0

点击 [Sources](#) 下载 opencv3.2.0

将 opencv-3.2.0.zip 文件解压到家目录下，并切换到 opencv-3.2.0 目录下

```
unzip opencv-3.2.0.zip -d ~/

cd opencv-3.2.0/
```

自定义编译安装，自定义安装路径/usr/local/opencv3.2.0（注意不要将自定义路径设为/usr，亲试无效）一定要改 cmake 的路径（后面会提到）

```
mkdir build

cd build

cmake -D CMAKE_INSTALL_PREFIX=/usr/local/opencv3.2.0 ..

make

sudo make install
```

(3) 安装新的 opencv 需要注意两件事

1、更改 cmake 的路径

2、更改指令 `cmake -D CMAKE_INSTALL_PREFIX=/usr/local/opencv3.2.0 ..`

更改 opencv 安装路径：这一步很重要，尤其对于多个版本 opencv 切换 不然会覆盖 ros 自带的 opencv

更改 cmake 的路径 17 到 30 行

```
if(NOT CMAKE_TOOLCHAIN_FILE)
    # it _must_ go before project(OpenCV) in order to work
    if(WIN32)
        set(CMAKE_INSTALL_PREFIX "${CMAKE_BINARY_DIR}/install" CACHE PATH
"Installation Directory")
    else()
        set(CMAKE_INSTALL_PREFIX "/usr/local" CACHE PATH "Installation Directory")
    endif()
else(NOT CMAKE_TOOLCHAIN_FILE)
    #Android: set output folder to ${CMAKE_BINARY_DIR}
    set( LIBRARY_OUTPUT_PATH_ROOT ${CMAKE_BINARY_DIR} CACHE PATH "root for
library output, set this to change where android libs are compiled to" )
    # any crosscompiling
    set(CMAKE_INSTALL_PREFIX "/usr/local/opencv248" CACHE PATH "Installation
Directory")    #更改 opencv 安装路径

    #set(CMAKE_INSTALL_PREFIX "${CMAKE_BINARY_DIR}/install" CACHE PATH
"Installation Directory")
endif(NOT CMAKE_TOOLCHAIN_FILE)
```

更改 make 的地址

```
mkdir build

cd build

cmake -D CMAKE_INSTALL_PREFIX=/usr/local/opencv3.2.0 ..    //更改一下路径

make

sudo make install
```

1.3 卸载 opencv

```
sudo rm -r /usr/local/include/opencv2 /usr/local/include/opencv /usr/include/opencv /usr/include/opencv2 /usr/local/share/opencv /usr/local/share/OpenCV /usr/share/opencv /usr/share/OpenCV /usr/local/bin/opencv* /usr/local/lib/libopencv*
```

运行程序，提示没有的文件，删除即可 指令中的路径即可

删除文件 opencv.pc ，路径如下：

```
:/usr/local/lib/pkgconfig
```

1.4 opencv 版本切换

更改 cmake 文件

```
# cmake version
cmake_minimum_required(VERSION 2.8)
# project name
project(test)

# find opencv
find_package(OpenCV REQUIRED)
include_directories(${OpenCV_INCLUDE_DIRS})
//下面的是特定的 cpp 文件
# add cpp file
add_executable(test test.cpp)
target_link_libraries(test ${OpenCV_LIBS})
```

或者 使用 3.2

```
# cmake version
cmake_minimum_required(VERSION 2.8)

# find opencv3 OpenCVConfig.cmake
set(OpenCV_DIR "/usr/local/opencv3.2.0/share/OpenCV")

# project name
project(test)
```

```
# find opencv
find_package(OpenCV 3.2.0 REQUIRED)
include_directories(${OpenCV_INCLUDE_DIRS})

# add cpp file
add_executable(test test.cpp)
target_link_libraries(test ${OpenCV_LIBS})
```