

OpenCV 4.0.1

RaspberryPi3 B+ , Jetson Nano , Jetson TX2 の各種環境でビルド .
それぞれ ,

```
dd if=/dev/zero of=swapfile bs=1M count=2048
sudo mkswap swapfile
sudo swapon swapfile
```

で , スワップ領域を用意 .

必要そうなものをいろいろインストール

```
sudo apt-get install -y build-essential cmake pkg-config
sudo apt-get install -y libjpeg-dev libtiff5-dev libjasper-dev libpng12-dev libjpeg-dev
sudo apt-get install -y libavcodec-dev libavformat-dev libswscale-dev libv4l-dev
sudo apt-get install -y libxvidcore-dev libx264-dev
sudo apt-get install -y libgtk2.0-dev
sudo apt-get install -y libatlas-base-dev gfortran
sudo apt-get install -y python2.7-dev python3-dev
sudo apt-get install -y python-pip python3-pip
sudo pip install numpy
sudo pip3 install numpy
```

ソースコードを用意して ,

```
wget -O opencv.zip https://github.com/Itseez/opencv/archive/4.0.1.zip
unzip opencv.zip
wget -O opencv_contrib.zip https://github.com/Itseez/opencv_contrib/archive/4.0.1.zip
unzip opencv_contrib
```

RaspberryPi3 の場合 ,

```
cmake -DCMAKE_BUILD_TYPE=Release ¥
-DCMAKE_INSTALL_PREFIX=/usr/local ¥
-DOPENCV_EXTRA_MODULES_PATH=../../opencv_contrib-4.0.1/modules ¥
-DENABLE_VFPV3=ON ¥
-DENABLE_NEON=ON ¥
-DBUILD_TESTS=OFF ¥
-DWITH_TBB=OFF ¥
-DINSTALL_PYTHON_EXAMPLES=ON ¥
-DOPENCV_SKIP_PYTHON_LOADER=ON ¥
-DOPENCV_PYTHON2_INSTALL_PATH=/usr/local/lib/python2.7/dist-packages ¥
-DOPENCV_PYTHON3_INSTALL_PATH=/usr/local/lib/python3.5/dist-packages ¥
-DOPENCV_GENERATE_PKGCONFIG=ON ¥
-DBUILD_EXAMPLES=ON ¥
..
```

Jetson Nano , Jetson TX2 の場合 ,

```
sudo apt install opencv-headers ocl-icd-libopencv11
```

を追加でいれて ,

```
cmake -DCMAKE_BUILD_TYPE=Release ¥
-DCMAKE_INSTALL_PREFIX=/usr/local ¥
-DOPENCV_EXTRA_MODULES_PATH=../../opencv_contrib-4.0.1/modules ¥
-DOPENCV_ENABLE_NONFREE=true ¥
-DBUILD_EXAMPLE=ON ¥
-DWITH_CUDA=ON ¥
-DCUDA_ARCH_BIN=6.2 ¥
-DCPU_BASELINE=FP16 ¥
..
```

として

```
make  
sudo make install
```

さて、ビルドは成功する、かな？

...RaspberryPi3 ではうまくビルドできたけど、
Jetson Nano と Jetson TX2 はビルド中にディスクが不足して失敗してた。

打合せ

北参道 巢鴨 四谷