Lio-Sam algorithm compilation

1、Install dependencies

ROS(ubuntu 18.04 melodic)

Ceres solver

GTSAM

ndt_omp

2、Source code path

imuCalibEx：

```
src/imuCalibEx
```

Lio-Sam:

```
src/Lio_Sam
```

3、compile

Here we take Jetson nano as an example. The installation environment is ubuntu 18.04 and the ROS version is melodic. ROS (ubuntu 18.04 melodic), Ceres solver, GTSAM and other dependencies have been installed by default.

compile

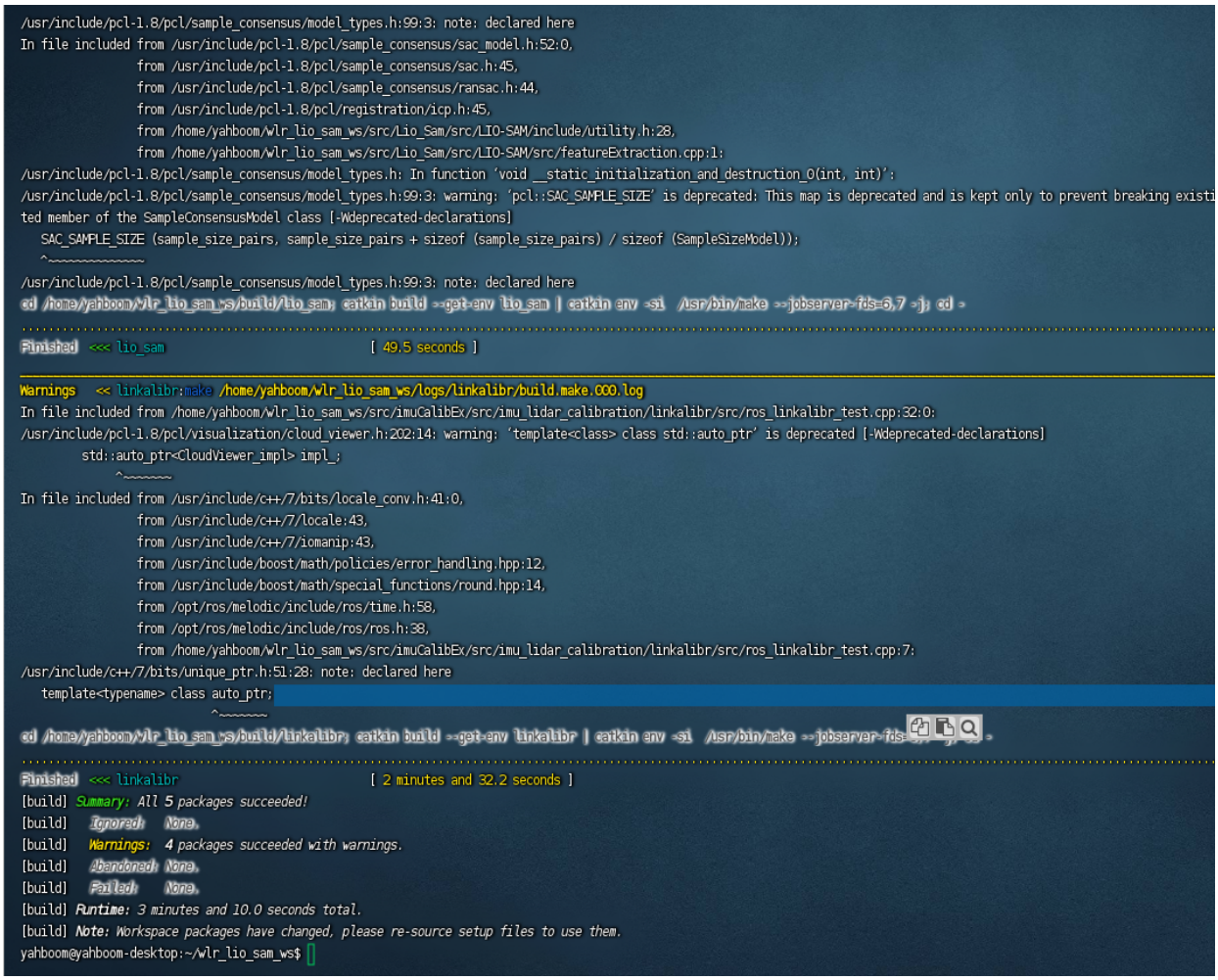
If it is the first time to compile, please enter the following command：

```
sudo mv /usr/include/flann/ext/lz4.h /usr/include/flann/ext/lz4.h.bak

sudo mv /usr/include/flann/ext/lz4hc.h /usr/include/flann/ext/lz4.h.bak

sudo ln -s /usr/include/lz4.h /usr/include/flann/ext/lz4.h

sudo ln -s /usr/include/lz4hc.h /usr/include/flann/ext/lz4hc.h
```

Then enter Lio_Sam's workspace to compile

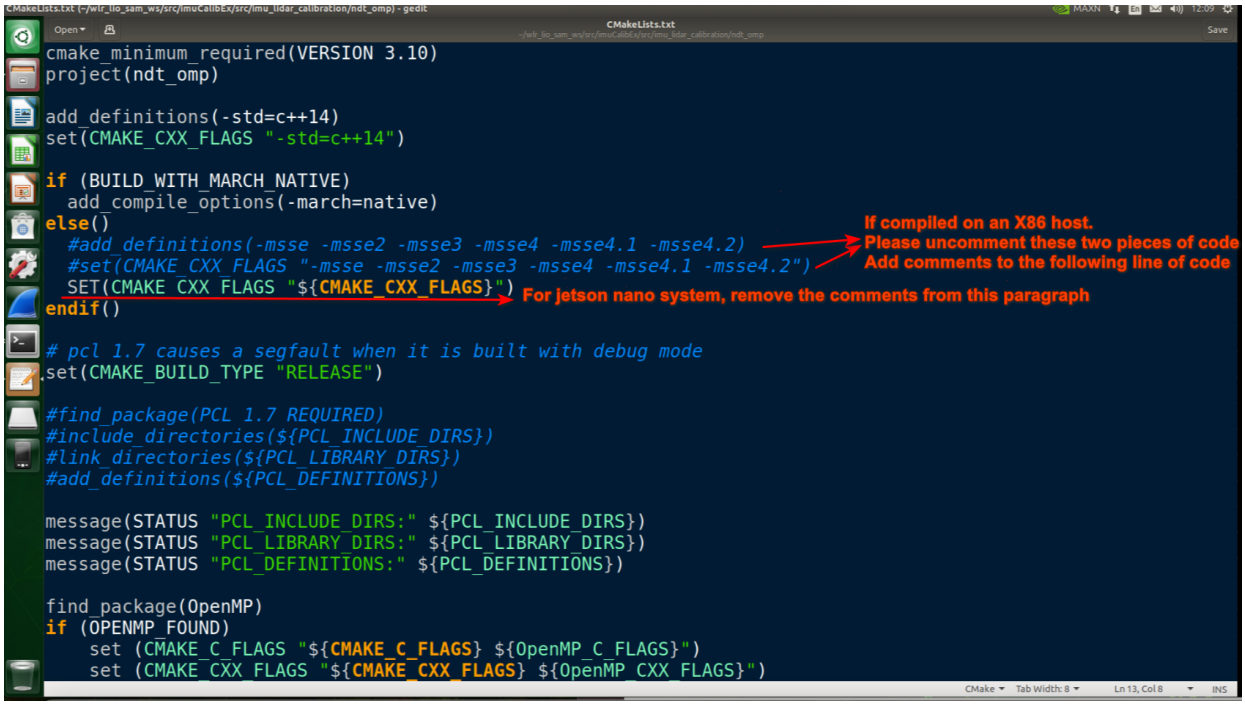
```
cd ~/lio_sam_ws

catkin build
```

Compilation completed effect：



What you need to pay attention to is that when compiling imuCalibEx, if you are using a Jetson nano class arm motherboard. You need to modify the src/imuCalibEx/src/imu_lidar_calibration/ndt_omp/CMakeLists.txt file, refer to the location shown in the example picture below

```
SET(CMAKE_CXX_FLAGS "${CMAKE_CXX_FLAGS}")
```



You also need to modify the src/imuCalibEx/src/imu_lidar_calibration/linkalibr/CMakeLists.txt file as shown below.

```
set(LIB_TBB_DIR /usr/lib/aarch64-linux-gnu)
```