**Cartographer配置**

**1、安装依赖性**

sudo apt-get update

sudo apt-get install -y \

cmake \

g++ \

git \

google-mock \

libboost-all-dev \

libcairo2-dev \

libeigen3-dev \

libgflags-dev \

libgoogle-glog-dev \

liblua5.2-dev \

libprotobuf-dev \

libsuitesparse-dev \

libwebp-dev \

ninja-build \

protobuf-compiler \

**2、安装ceres solver**

git clone https://github.com/Tengyun-Mo/ceres-solver.git

cd ceres-solver

mkdir build

cd build

cmake ..

make -j4

sudo make install

**3、环境配置**

sudo apt-get update

sudo apt-get install -y python3-wstool python3-rosdep ninja-build stow

**4、初始化工作空间**

mkdir catkin\_google\_ws

cd catkin\_google\_ws

**5、设置下载地址**

wstool init src

wstool merge -t src https://raw.githubusercontent.com/cartographer-project/cartographer\_ros/master/cartographer\_ros.rosinstall

wstool update -t src

**6、下载功能包**

sudo rosdep init

rosdep update

如果报错无法执行，运行rosdepc

sudo pip install rosdepc

sudo rosdepc init

rosdepc update

**7、安装abseil cpp库**

src/cartographer/scripts/install\_abseil.sh

**8、编译功能包**

catkin\_make\_isolated --install --use-ninja

source install\_isolated/setup.bash #如果用zsh的话，把.bash替换成.zsh

**测试**

**2D demo**

wget -P ~/Downloads https://storage.googleapis.com/cartographer-public-data/bags/backpack\_2d/cartographer\_paper\_deutsches\_museum.bag

roslaunch cartographer\_ros demo\_backpack\_2d.launch bag\_filename:=${HOME}/Downloads/cartographer\_paper\_deutsches\_museum.bag

**3D demo**

wget -P ~/Downloads https://storage.googleapis.com/cartographer-public-data/bags/backpack\_3d/with\_intensities/b3-2016-04-05-14-14-00.bag

roslaunch cartographer\_ros demo\_backpack\_3d.launch bag\_filename:=${HOME}/Downloads/b3-2016-04-05-14-14-00.bag