cmake\_minimum\_required(VERSION 3.5.1)

project(grid\_map\_ros)

set(CMAKE\_CXX\_FLAGS "-std=c++11 ${CMAKE\_CXX\_FLAGS}")

add\_compile\_options(-Wall -Wextra -Wpedantic)

set(CMAKE\_EXPORT\_COMPILE\_COMMANDS ON)

## Find catkin macros and libraries

find\_package(catkin REQUIRED COMPONENTS

roscpp

grid\_map\_core

grid\_map\_msgs

grid\_map\_cv

sensor\_msgs

nav\_msgs

std\_msgs

geometry\_msgs

cv\_bridge

rosbag

tf

visualization\_msgs

)

## System dependencies are found with CMake's conventions

#find\_package(Eigen3 REQUIRED)

###################################

## catkin specific configuration ##

###################################

## The catkin\_package macro generates cmake config files for your package

## Declare things to be passed to dependent projects

## INCLUDE\_DIRS: uncomment this if you package contains header files

## LIBRARIES: libraries you create in this project that dependent projects also need

## CATKIN\_DEPENDS: catkin\_packages dependent projects also need

## DEPENDS: system dependencies of this project that dependent projects also need

catkin\_package(

INCLUDE\_DIRS

include

LIBRARIES

${PROJECT\_NAME}

CATKIN\_DEPENDS

roscpp

grid\_map\_core

grid\_map\_msgs

grid\_map\_cv

sensor\_msgs

nav\_msgs

std\_msgs

geometry\_msgs

cv\_bridge

rosbag

tf

visualization\_msgs

DEPENDS

)

###########

## Build ##

###########

## Specify additional locations of header files

include\_directories(

include

SYSTEM

${catkin\_INCLUDE\_DIRS}

${EIGEN3\_INCLUDE\_DIR}

)

## Declare a cpp library

add\_library(${PROJECT\_NAME}

src/GridMapRosConverter.cpp

src/GridMapMsgHelpers.cpp

src/PolygonRosConverter.cpp

)

target\_link\_libraries(${PROJECT\_NAME}

${catkin\_LIBRARIES}

)

add\_dependencies(${PROJECT\_NAME}

${catkin\_EXPORTED\_TARGETS}

)

#############

## Install ##

#############

# Mark executables and/or libraries for installation

install(

TARGETS ${PROJECT\_NAME}

ARCHIVE DESTINATION ${CATKIN\_PACKAGE\_LIB\_DESTINATION}

LIBRARY DESTINATION ${CATKIN\_PACKAGE\_LIB\_DESTINATION}

RUNTIME DESTINATION ${CATKIN\_PACKAGE\_BIN\_DESTINATION}

)

# Mark cpp header files for installation

install(

DIRECTORY include/${PROJECT\_NAME}/

DESTINATION ${CATKIN\_PACKAGE\_INCLUDE\_DESTINATION}

FILES\_MATCHING PATTERN "\*.hpp"

)

#############

## Testing ##

#############

if(CATKIN\_ENABLE\_TESTING)

set(CMAKE\_CXX\_FLAGS "${CMAKE\_CXX\_FLAGS} -pthread")

## Add gtest based cpp test target and link libraries

catkin\_add\_gtest(${PROJECT\_NAME}-test

test/test\_grid\_map\_ros.cpp

test/GridMapRosTest.cpp

)

target\_include\_directories(${PROJECT\_NAME}-test PRIVATE

include

)

target\_include\_directories(${PROJECT\_NAME}-test SYSTEM PUBLIC

${catkin\_INCLUDE\_DIRS}

${EIGEN3\_INCLUDE\_DIR}

)

target\_link\_libraries(${PROJECT\_NAME}-test

${PROJECT\_NAME}

)

###################

## Code\_coverage ##

###################

find\_package(cmake\_code\_coverage QUIET)

if(cmake\_code\_coverage\_FOUND)

add\_gtest\_coverage(

TEST\_BUILD\_TARGETS

${PROJECT\_NAME}-test

)

endif()

endif()

#################

## Clang\_tools ##

#################

find\_package(cmake\_clang\_tools QUIET)

if(cmake\_clang\_tools\_FOUND)

add\_default\_clang\_tooling(

DISABLE\_CLANG\_FORMAT

)

endif(cmake\_clang\_tools\_FOUND)