

KBLD183002 RPLidar

SDKRPLidar

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-
- SDK
 - Ultra_simple_multi_touch
 - rplidar_multi_touch
 - Calibration application
- SDK
 - SDK
 - SDK

1. RPLidar



2. RPlidar_multi_touch SDK :



SDKRPLiDAR A2 256000A3multi_touch.json

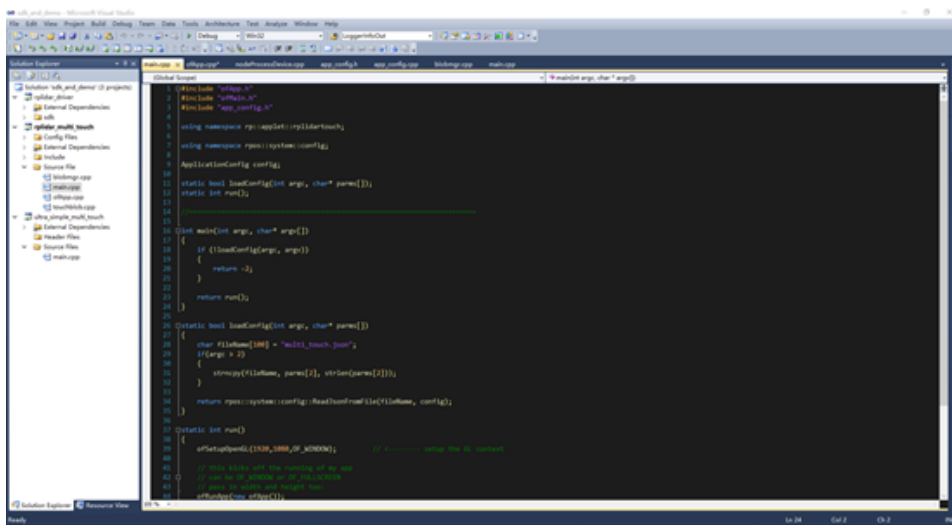
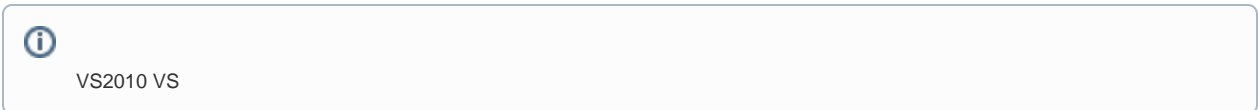
1. USBRPLidarRPLidar0.3mUSB
2. cp210x[RPLidar](#)
3. IP
<https://wiki.slamtec.com/pages/viewpage.action?pageId=10354801>

IPIP192.168.0.7, IP

multi_touch.jsonconnect_pathTCPSDK



1. workspaces\vc10 VS sdk_and_demo.sln



2. Solution Explorer Solution"sdk_and_demo"(5 projects), rebuild solution
3. workspaces\vc10\sdk_project\multiTouch_sdk\output multiTouch_sdk.dllmultiTouch_sdk.dll2Solution

4. workspaces\vc10\demo_project 3demo\bin3demo app

obj

output

sdk

workspaces

makefile

obj

vc10

demo_project

calibration_app

rplidar_multi_touch

bin

Debug

ultra_simple_multi_touch

ipch

sdk_project

名称

data

Assimp32.dll

fmodex.dll

fmodexL.dll

FreeImage.dll

FreeType-6.dll

glut32.dll

multi_touch.json

multiTouch_sdk.dll

rplidar_multi_touch_debug.exe

rplidar_multi_touch_debug.exp

rplidar_multi_touch_debug.ilc

rplidar_multi_touch_debug.lib

rplidar_multi_touch_debug.pdb

Zlib.dll

修改日期

2018/3/6 11:29

2017/3/14 13:50

2017/3/14 13:50

2017/3/14 13:50

2017/3/14 13:50

2017/3/14 13:50

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2018/3/6 11:49

2018/3/6 14:40

2018/3/6 14:40

2018/3/6 14:40

2018/3/6 14:40

2017/3/14 13:50

类型

文件夹

应用程序扩展

应用程序扩展

应用程序扩展

应用程序扩展

应用程序扩展

JSON 文件

应用程序扩展

应用程序

Exports Library ...

Incremental Link...

Object File Library

Program Debug...

应用程序扩展

大小

4,519 KB

283 KB

323 KB

2,650 KB

357 KB

232 KB

1 KB

511 KB

5,164 KB

45 KB

12,043 KB

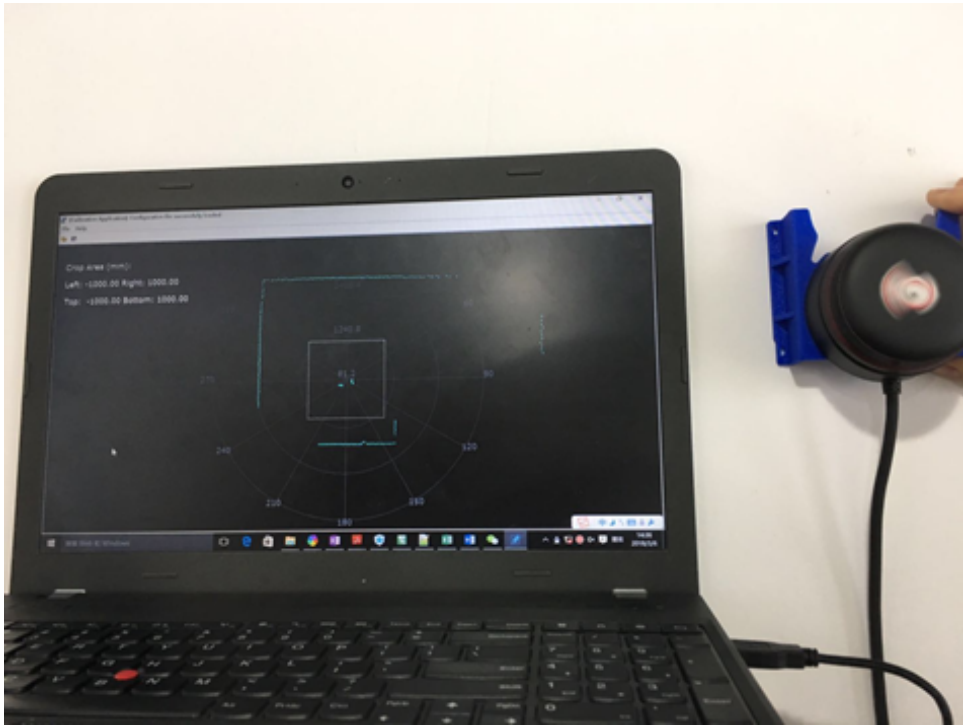
81 KB

17,363 KB

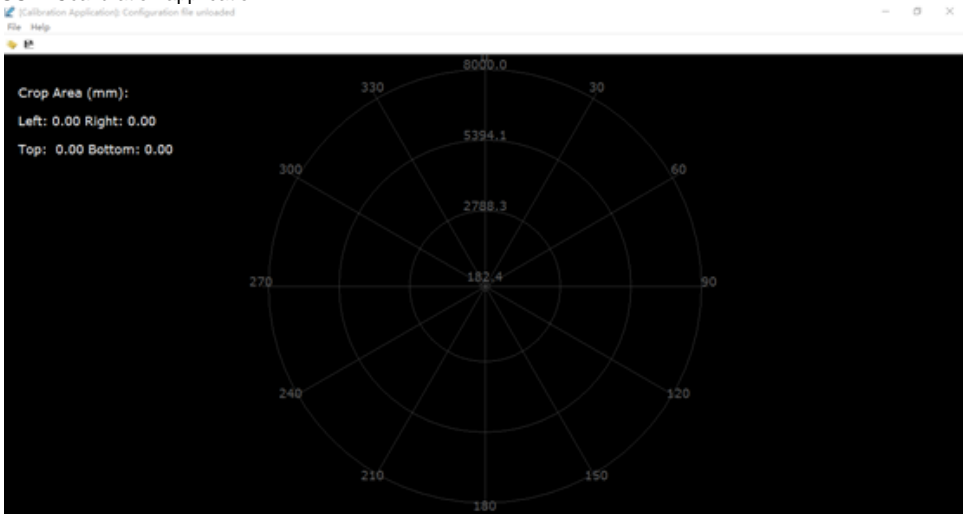
68 KB

rplidar_multi_touchapp\bin2multiTouch_sdk.dll

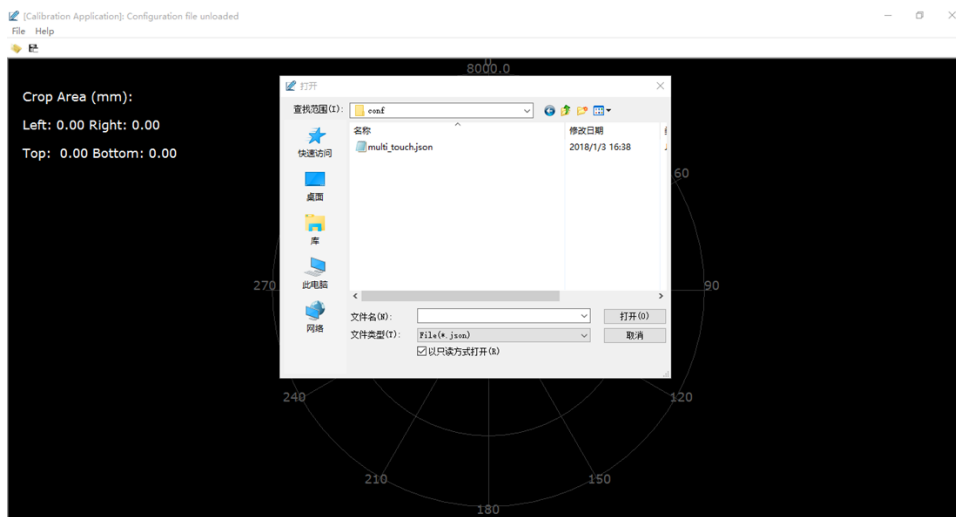
5. RPLidar 180



6. USBPCcalibration application

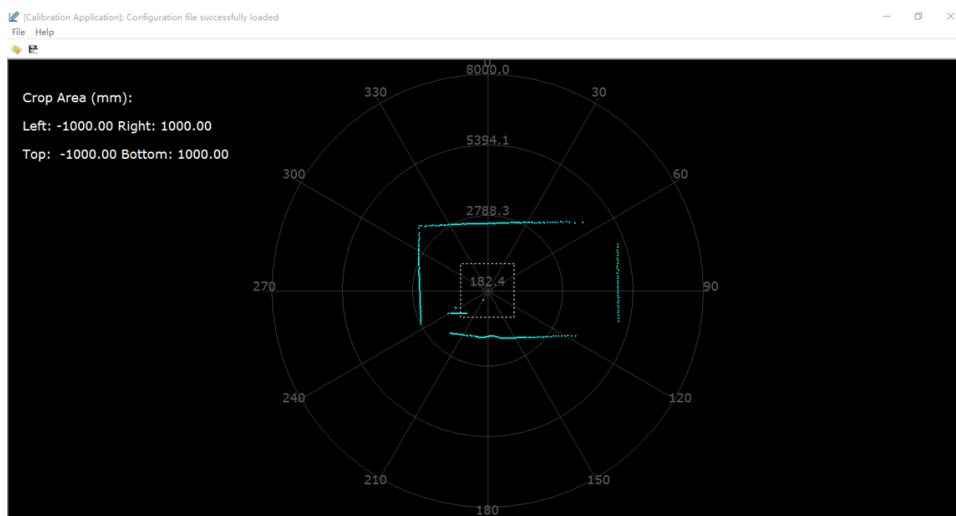


fileload configuration



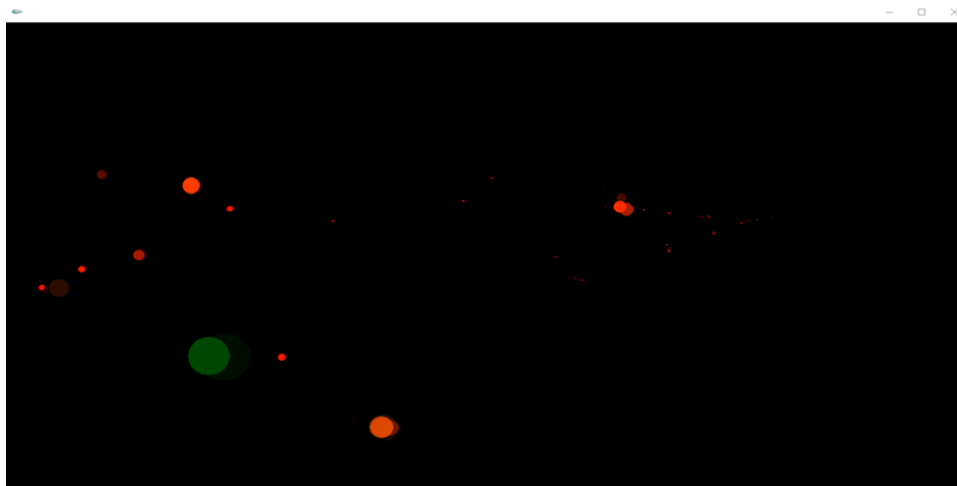
multi_touch.json, Debug..\confRelease\workspaces\vc10\demo_project\rplidar_multi_touch\bin

7.



confmulti_touch.json15

8. workspaces\vc10\demo_project\rplidar_multi_touch\bin\rplidar_multi_touch_debug.exeTouchPoints1m*1m1920*1080





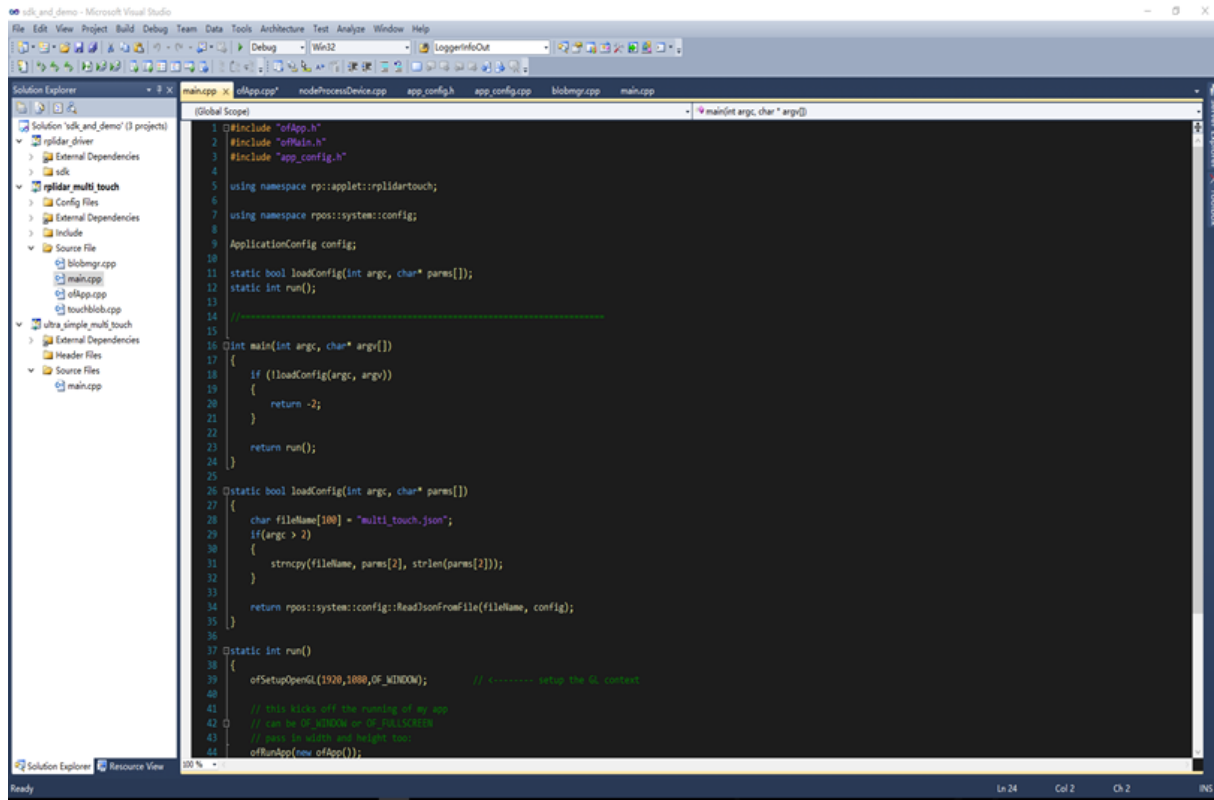
TouchPoints?

Rplidar_multi_touch0.05m (BlobCombinationThreshold)xy0.05m0.05.

TouchPoints

SDK

Windowsworkspaces\vc10 VS sdk_and_demo.sln SDK



VS SDK Debug Release output\win32\Debug output\win32\Release

Ultra_simple_multi_touch

PC RPLIDAR RPLIDAR

1) USB RPLIDAR PC USB

2)workspace\vs10\demo_project\ultra_simple_multi_touch \binultra_rplidar_multi_touch.exe

COM COM3

```
选择ultra_simple_multi_touch.exe
C:\multi_touch_demo_1215\multi_touch_demo_1215\demoapps\multi_touch\workspaces\vs10\ultra_simple_multi_touch\bin>ultra_s
imple_multi_touch.exe
Successfully create and connect to the rplidar device
Scan frequency: 0
the touch point x: 1212, y: 830, radius: 91.86
the touch point x: 886, y: 753, radius: 1.00
the touch point x: 678, y: 592, radius: 1.00
the touch point x: 843, y: 539, radius: 19.18
the touch point x: 905, y: 394, radius: 1.00
the touch point x: 1195, y: 66, radius: 6.30
the touch point x: 1210, y: 269, radius: 14.17
the touch point x: 1168, y: 411, radius: 3.82
the touch point x: 1408, y: 400, radius: 21.45
the touch point x: 1578, y: 386, radius: 1.00
the touch point x: 1545, y: 546, radius: 22.95
the touch point x: 1252, y: 683, radius: 1.00
the touch point x: 1423, y: 757, radius: 1.00
the touch point x: 1168, y: 736, radius: 1.00
the touch point x: 1114, y: 729, radius: 1.00
the touch point x: 1212, y: 830, radius: 91.86
the touch point x: 886, y: 753, radius: 1.00
the touch point x: 678, y: 592, radius: 1.00
the touch point x: 843, y: 539, radius: 19.18
the touch point x: 905, y: 394, radius: 1.00
the touch point x: 1195, y: 66, radius: 6.30
the touch point x: 1210, y: 269, radius: 14.17
the touch point x: 1168, y: 411, radius: 3.82
the touch point x: 1545, y: 546, radius: 22.59
```

rplidar_multi_touch

PC RPLIDAR GUI

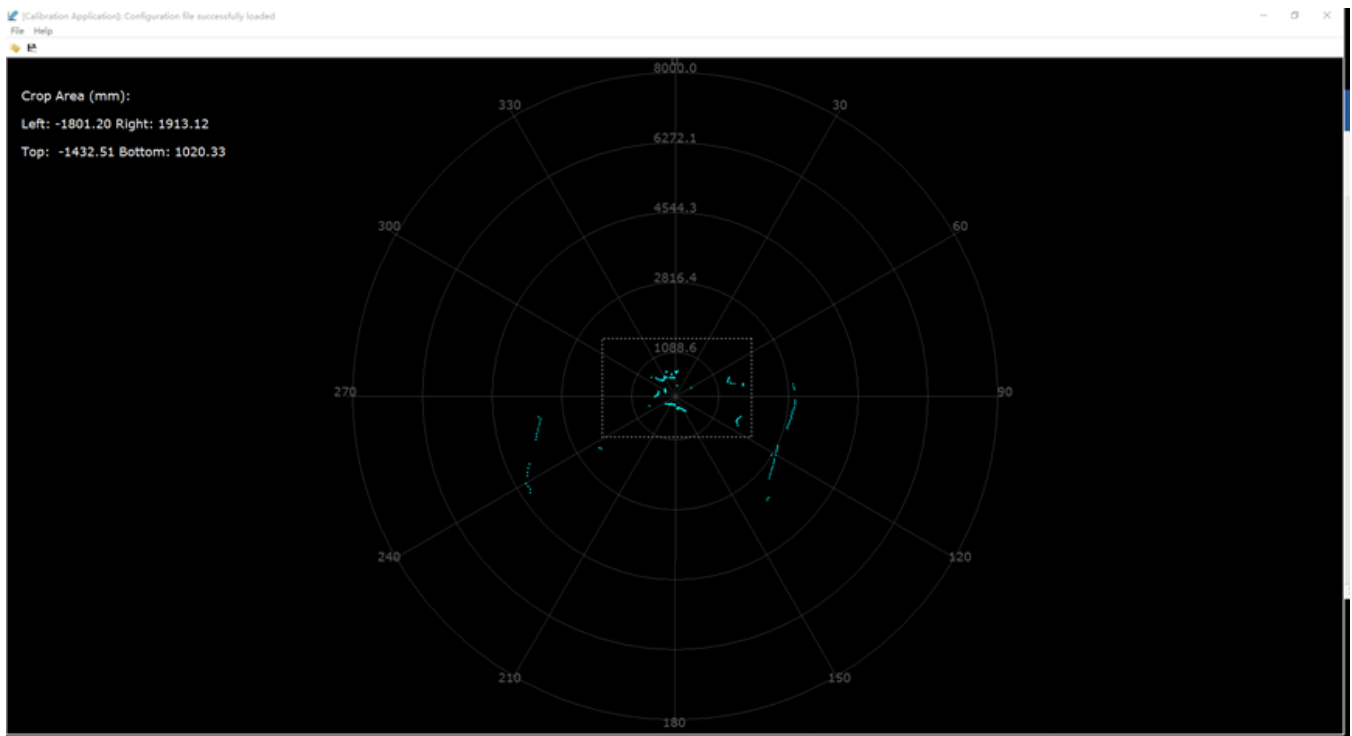
- 1) USB RPLIDAR PC USB
 - 2) workspace\vs10\demo_project\rplidar_multi_touch\bin\rplidar_multi_touch_debug.exe
- 8

Calibration application

PC RPLIDAR GUI ,.

- 1) USB RPLIDAR PC USB
 - 2) workspace\vs10\demo_project\calibration_app\bin\rplidar_multi_touch_debug.exe
- 3fileload configuration..\confDebugworkspace\vs10\demo_project\calibration_app\binReleasejsonfilesave configuration





SDK

SDK:

- conf
- demo_app
 - calibration_application
 - rplidar_multi_touch
 - ultra_simple_multi_touch
- obj
- output
- sdk
 - MultiTouch_SDK
 - RPLIDAR_SDK
- workspaces
 - makefile
 - obj
 - vc10
 - xcode

SDK

- Jsoncpp Json
- Open frameworks

confjson

- "connect path"TCP
- "touch_area"
- "show_lidar_scan"
- "show_touch_point_coordination"touchpoint
- "angle_offset"180

demo_app

- rplidar_multi_touch

win32GUI

- Ultra_simple_multi_touch

SDKmulti_touchincludeSDKsrc

WorkspaceSDKVS

SDK 2 obj output output SDK (.lib .a) (exe elf) obj

SDKRPLIDARMulti_touch SDKrplidar_multi_touchTouchPoints

Multi_touch SDKSDK

SDK

app_config.h

Json

message.h

nodeProcessDevice.h

NodeProcessDevice

rplidar.h

RPLidar SDK

rplidar_driver.h

RPLidar SDK: RPLidarDriver

rplidar_protocol.h

RPLidar

rplidar_cmd.h

RPLidar /

rptypes.h

SDK

SDK

RPLidarNodeProcessDevice rplidar_multi_touchofAppNodeProcessDevice proDev_ .

RPLidar

NodeProcessDevicecreateAndStartRPLidar()RPLidar(serial)TCPtrue

startUp(JsonCropArea

setLidarPwm()66060%1023.

getLidarScan()RPLidar_drivergrabScanData()processScan()

setScreenSize1920*1080.

getTouchPoints().

getScanNodeDrawPoints()