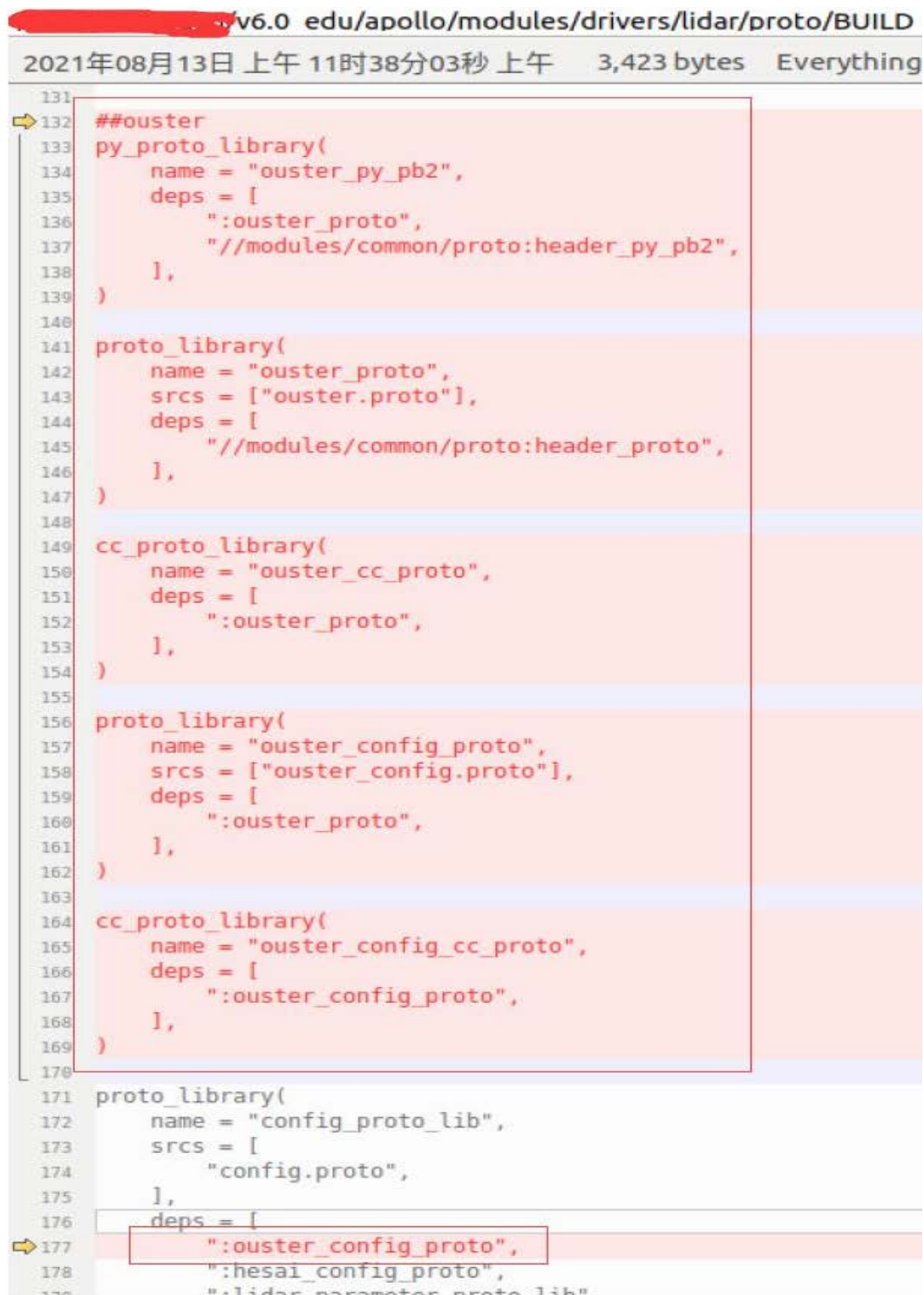


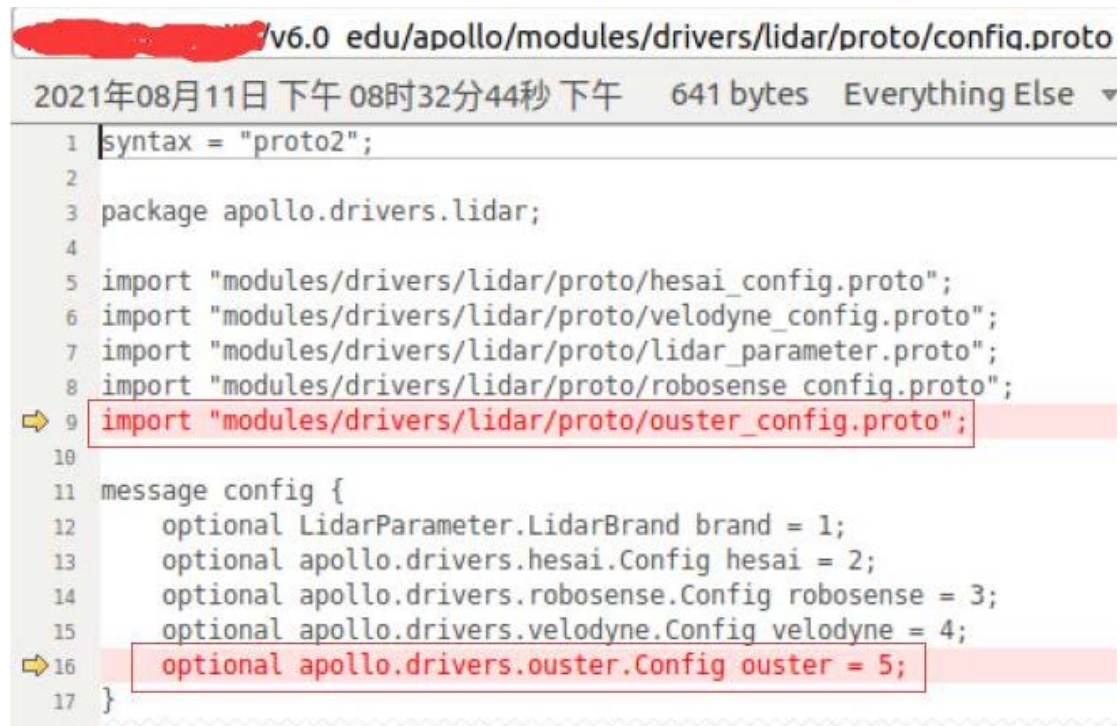
- 1、解压 “ouster_pps_apollo_v6_edu_v1_20210813.tgz” ,在 apollo 中添加文件和内容如下:
 - a,将文件夹"ouster"拷贝到 apollo 的 “modules/drivers/lidar” 目录下;
 - b,将文件"ouster_config.proto"和"ouster.proto"拷贝到 apollo 的 “modules/drivers/lidar/proto” 目录下;
 - c, 在文件 “modules/drivers/lidar/proto/BUILD” 中增加 ouster 内容，具体参见"BUILD"文件和图 1 的红框部分。



```
131
132 ##ouster
133 py_proto_library(
134     name = "ouster_py_pb2",
135     deps = [
136         ":ouster_proto",
137         "//modules/common/proto:header_py_pb2",
138     ],
139 )
140
141 proto_library(
142     name = "ouster_proto",
143     srcs = ["ouster.proto"],
144     deps = [
145         "//modules/common/proto:header_proto",
146     ],
147 )
148
149 cc_proto_library(
150     name = "ouster_cc_proto",
151     deps = [
152         ":ouster_proto",
153     ],
154 )
155
156 proto_library(
157     name = "ouster_config_proto",
158     srcs = ["ouster_config.proto"],
159     deps = [
160         ":ouster_proto",
161     ],
162 )
163
164 cc_proto_library(
165     name = "ouster_config_cc_proto",
166     deps = [
167         ":ouster_config_proto",
168     ],
169 )
170
171 proto_library(
172     name = "config_proto_lib",
173     srcs = [
174         "config.proto",
175     ],
176     deps = [
177         ":ouster_config_proto",
178         ":hesai_config_proto",
179         ":lidar_parameter_proto_lib"
```

图 1

d, 在文件 “modules/drivers/lidar/proto/config.proto” 中增加 ouster 内容, 具体参见 "config.proto"文件和图 2 的红框部分。



```
1 syntax = "proto2";
2
3 package apollo.drivers.lidar;
4
5 import "modules/drivers/lidar/proto/hesai_config.proto";
6 import "modules/drivers/lidar/proto/velodyne_config.proto";
7 import "modules/drivers/lidar/proto/lidar_parameter.proto";
8 import "modules/drivers/lidar/proto/robosense_config.proto";
9 import "modules/drivers/lidar/proto/ouster_config.proto";
10
11 message config {
12     optional LidarParameter.LidarBrand brand = 1;
13     optional apollo.drivers.hesai.Config hesai = 2;
14     optional apollo.drivers.robosense.Config robosense = 3;
15     optional apollo.drivers.velodyne.Config velodyne = 4;
16     optional apollo.drivers.ouster.Config ouster = 5;
17 }
```

图 2

- 2、修改 “ouster/conf/ouster128.pb.txt” 中的配置, “udp_dest_host” 是工控机的 IP, “hostname” 为 Lidar 的 IP。
- 3、“apollo.sh build_opt_gpu”编译成功后启动 “cyber_launch start /apollo/modules/drivers/lidar/ouster/launch/ouster128.launch”, 然后通过 cyber 中查看相关的输出信息。