Error message from system_error_monitor during planning-simulation #3950

🗨 Closed   ⬭ Unanswered   **felixf4xu** asked this question in **Q&A**

felixf4xu on Nov 1, 2023

Hi,

I'm trying planning simulation by instructions at
https://autowarefoundation.github.io/autoware-documentation/main/tutorials/ad-hoc-simulation/planning-simulation/ and I
run:

```
ros2 launch autoware_launch planning_simulator.launch.xml
map_path:=$HOME/autoware_map/sample-map-planning
vehicle_model:=sample_vehicle sensor_model:=sample_sensor_kit
```

In the terminal, I got several error messages:

```
[system_error_monitor-16] [ERROR] [1698828110.660675931]
[system_error_monitor
/autoware/control/autonomous_driving/node_alive_monitoring]:
[Single Point Fault]: Error
[system_error_monitor-16] [ERROR] [1698828110.660702997]
[system_error_monitor
/autoware/control/autonomous_driving/node_alive_monitoring/topic_st
control_topic_status]: [Single Point Fault]: Error
[system_error_monitor-16] [ERROR] [1698828110.660709785]
[system_error_monitor
/autoware/control/autonomous_driving/node_alive_monitoring/topic_st
control_topic_status]: [Single Point Fault]: Error
[system_error_monitor-16] [ERROR] [1698828110.660714491]
[system_error_monitor /autoware/planning/node_alive_monitoring]:
[Single Point Fault]: Error
[system_error_monitor-16] [ERROR] [1698828110.660719102]
[system_error_monitor
/autoware/planning/node_alive_monitoring/topic_status/topic_state_m
planning_topic_status]: [Single Point Fault]: OK
[system_error_monitor-16] [ERROR] [1698828110.660723480]
[system_error_monitor
/autoware/planning/node_alive_monitoring/topic_status/topic_state_m
planning_topic_status]: [Single Point Fault]: Error
[system_error_monitor-16] [ERROR] [1698828110.660727858]
[system_error_monitor
/autoware/planning/performance_monitoring/trajectory_validation]:
[Single Point Fault]: Error
[system_error_monitor-16] [ERROR] [1698828110.660732596]
[system_error_monitor
/autoware/planning/performance_monitoring/trajectory_validation/tra
trajectory_validation_acceleration]: [Single Point Fault]:
acceleration is too large
[system_error_monitor-16] [ERROR] [1698828110.660785034]
```

Category

🙏 Q&A

Labels

None yet

3 participants

```
[system_error_monitor
/autoware/planning/performance_monitoring/trajectory_validation/tra
trajectory_validation_curvature]: [Single Point Fault]: curvature
is too large
[system_error_monitor-16] [ERROR] [1698828110.660790761]
[system_error_monitor
/autoware/planning/performance_monitoring/trajectory_validation/tra
trajectory_validation_deceleration]: [Single Point Fault]:
deceleration is too large
[system_error_monitor-16] [ERROR] [1698828110.660794815]
[system_error_monitor
/autoware/planning/performance_monitoring/trajectory_validation/tra
trajectory_validation_finite]: [Single Point Fault]: infinite
value is found
[system_error_monitor-16] [ERROR] [1698828110.660799487]
[system_error_monitor
/autoware/planning/performance_monitoring/trajectory_validation/tra
trajectory_validation_interval]: [Single Point Fault]: points
interval is too long
[system_error_monitor-16] [ERROR] [1698828110.660804158]
[system_error_monitor
/autoware/planning/performance_monitoring/trajectory_validation/tra
trajectory_validation_lateral_acceleration]: [Single Point
Fault]: lateral acceleration is too large
[system_error_monitor-16] [ERROR] [1698828110.660808695]
[system_error_monitor
/autoware/planning/performance_monitoring/trajectory_validation/tra
trajectory_validation_relative_angle]: [Single Point Fault]:
relative angle is too large
[system_error_monitor-16] [ERROR] [1698828110.660813396]
[system_error_monitor
/autoware/planning/performance_monitoring/trajectory_validation/tra
trajectory_validation_steering]: [Single Point Fault]: expected
steering is too large
[system_error_monitor-16] [ERROR] [1698828110.660817686]
[system_error_monitor
/autoware/planning/performance_monitoring/trajectory_validation/tra
trajectory_validation_steering_rate]: [Single Point Fault]:
expected steering rate is too large
[system_error_monitor-16] [ERROR] [1698828110.660821689]
[system_error_monitor
/autoware/planning/performance_monitoring/trajectory_validation/tra
trajectory_validation_steering_rate]: [Single Point Fault]:
expected steering rate is too large
[system_error_monitor-16] [ERROR] [1698828110.660826018]
[system_error_monitor
/autoware/planning/performance_monitoring/trajectory_validation/tra
trajectory_validation_velocity_deviation]: [Single Point Fault]:
velocity deviation is too large
```

How to read and explain this error message?

```
system_error_monitor
/autoware/control/autonomous_driving/node_alive_monitoring/top___ta
control_topic_status]: [Single Point Fault]: Error
```

I guess `topic_state_monitor_control_command_control_cmd` is a node
name, but what's `Single Point Fault` ?

```
[Single Point Fault]: Error
```

In the same terminal, I have several additional message:

```
[component_container_mt-35] [INFO] [1698828105.978490946]
[default_ad_api.node.operation_mode]: control, planning compon...
state is unhealthy. Autonomous is not available.
[component_container-34] [INFO] [1698828106.091265498]
[control.trajectory_follower.controller_node_exe]: Waiting for
trajectory.
[component_container-34] [INFO] [1698828106.091300094]
[control.trajectory_follower.controller_node_exe]: Control is
skipped since input data is not ready.
[component_container_mt-35] [INFO] [1698828108.978990938]
[default_ad_api.node.operation_mode]: control, planning component
state is unhealthy. Autonomous is not available.
[component_container-34] [INFO] [1698828110.559280915]
[control.trajectory_follower.lane_departure_checker_node]:
waiting for reference_trajectory msg...
```

My `AUTO` button is greyed out, so I can't proceed along with the document
to start simulation.

(the screenshot is from the document, where AUTO button is enabled.

↑ 1

2 comments

Oldest | Newest | Top

isamu-takagi on Nov 8, 2023 Maintainer

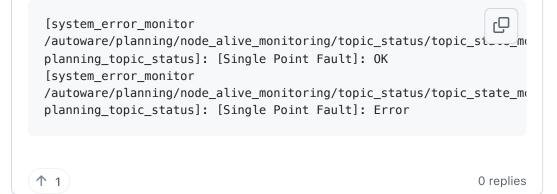> How to read and explain this error message?
> I guess topic_state_monitor_control_command_control_cmd is a node
> name, but what's Single Point Fault?

Yes, `topic_state_monitor_control_command_control_cmd` is the name of the
node that monitors the topic rate. And that node is detecting and reporting
an error in the topic rate.
Single Point Fault indicates that the error has been classified as requiring an
emergency stop. (It is based on the word in ISO 26262, but it is used with a
different meaning in Autoware.)

> My AUTO button is greyed out, so I can't proceed along with the
> document to start simulation.

From the log below, it seems that the route is being output, but the trajectory
is not. There is probably an error occurring on the nodes between them
(such as behavior_path_planner, behavior_velocity_planner). Please check if
these nodes are working properly.

```
[system_error_monitor
/autoware/planning/node_alive_monitoring/topic_status/topic_st___m
planning_topic_status]: [Single Point Fault]: OK
[system_error_monitor
/autoware/planning/node_alive_monitoring/topic_status/topic_state_m
planning_topic_status]: [Single Point Fault]: Error
```

↑ 1   0 replies

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kyoichi-sugahara on Jan 16 (Collaborator)

@isamu-takagi Thank you so much for answering
@felixf4xu If you still have question please open another discussion, I will
close this discussion for now.

↑ 1   0 replies