

Performance Analysis Report with CARET

#2822

takeshi-iwanari started this conversation in **Show and tell**



takeshi-iwanari on Aug 29, 2022

edited ▾

Hi,

Do you remember [CARET](#), which is a performance analysis tool my colleague introduced [before](#) ?

I analyzed Autoware using CARET and would like to share the result report.
This time, the followings are analyzed:

- Path analysis: Message flow and response time of a path
- Node analysis: Callback function details (Frequency, Period and Latency time)
- Node problem detection: Check if each callback function runs appropriately

Anyway, please open [THIS PAGE](#) to see the report !!

Also, I made [an explanation](#) of how to analyze Autoware with CARET, so that anybody can perform the same analysis.

If you have any comment or thought, please let me know.
(I actually would like to know whether the pathes I analyzed here are appropriate. I'd be happy if you suggest other pathes to be analyzed)

Thanks!!

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Category



Show and tell

Labels

None yet

4 participants



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Autostone-c on Oct 17, 2023

hi Can I record data on a machine and use caret_report to analyze the process of autoware and visualized on another machine?

↑ 1

5 replies



takeshi-iwanari on Oct 18, 2023 **Author**

Sure! I usually create a report on another machine.



Autostone-c on Oct 23, 2023

hi How can I record the callback_scheduling as an indicator? Have you ever done this job



takeshi-iwanari on Oct 24, 2023 Author

edited ▼

Sorry, I didn't try it.



Autostone-c on Oct 24, 2023

hi, this is necessary(`export LD_PRELOAD=$(readlink -f
~/ros2_caret_ws/install/caret_trace/lib/libcaret.so)`
) when record data .

and Is this necessary when I am analyzing data on another machine

```
dell@dell-Precision-3600:~$ source crayon-masp/install/setup.bash
dell@dell-Precision-3600:~$ source ros2_caret_ws/install/local_setup.bash
dell@dell-Precision-3600:~$ ros2 caret check_ctd -d session-202310241
session-20231024161101/ session-20231024190423/
dell@dell-Precision-3600:~$ ros2 caret check_ctd -d session-20231024190423/
usage: ros2 caret [-h] Call 'ros2 caret <command> -h' for more detailed usage. ...
ros2 caret: error: argument call: 'ros2 caret <command> -h' for more detailed usage.: invalid choice: 'check_ctd' (choose from 'check_caret_rclcpp', 'check_ctf',
summary', 'record', 'topic_summary', 'trace_point_summary', 'verify_paths', 'version')
dell@dell-Precision-3600:~$ ros2 caret check_ctf -d session-20231024190423/
Succeded to find record_cpp_impl. the C++ version will be used.
Traceback (most recent call last):
  File "/home/dell/crayon-masp/install/ros2cli/bin/ros2", line 33, in <module>
    sys.exit(load_entry_point('ros2cli', 'console_scripts', 'ros2')())
  File "/home/dell/crayon-masp/build/ros2cli/ros2cli/cli.py", line 89, in main
    rc = extension.main(parser=parser, args=args)
  File "/home/dell/ros2_caret_ws/build/ros2caret/ros2caret/command/caret.py", line 32, in main
    return extension.main(args=args)
  File "/home/dell/ros2_caret_ws/build/ros2caret/ros2caret/verb/check_ctf.py", line 36, in main
    lttnng(args.trace_dir)
  File "/home/dell/ros2_caret_ws/build/caret_analyze/caret_analyze/infra/lttnng/lttnng.py", line 284, in __init__
    data, events, begin, end = self.parse_lttnng_data()
  File "/home/dell/ros2_caret_ws/build/caret_analyze/caret_analyze/infra/lttnng/lttnng.py", line 315, in parse_lttnng_data
    event_collection = EventCollection()
  File "/home/dell/ros2_caret_ws/build/caret_analyze/caret_analyze/infra/lttnng/lttnng.py", line 71, in __init__
    self.iterable_events = CtfEventCollection(trace_dir)
  File "/home/dell/ros2_caret_ws/build/caret_analyze/caret_analyze/infra/lttnng/lttnng.py", line 206, in __init__
    assert begin_msg is not None
AssertionError
dell@dell-Precision-3600:~$
```



takeshi-iwanari on Oct 25, 2023 Author

No.

You only need `source ros2_caret_ws/install/local_setup.bash`
when analyzing data.



ralwing on Sep 4

edited ▼

Anyway, please open [THIS PAGE](#) to see the report !!

This site is unavailable :-(

↑ 1

1 reply



iwatake2222 on Sep 4

[@ralwing](#)

Thank you for telling me. I fixed the URL.

https://tier4.github.io/caret_report/

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