ROS 2 Persistent Parameter Server

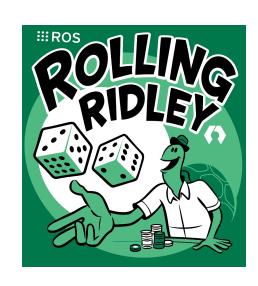
- inspired by ROS 1 parameter server.
- can set/get any parameters in this global server.
- can save/load the parameters in storage.











Why we need this?

- Global configuration that many nodes share (e.g. RTOS priorities, vehicle dimensions, ...)
- Generic ROS 2 system or localhost wide parameter server.
- Persistent storage support to re-initialize the system.
 - parameters are modified in runtime and cached into persistent volume as well. and next boot or next re-spawn, modified parameters will be loaded at initialization. (parameter lifetime is dependent on use case, sometimes system lifetime, sometimes node lifetime.)
- Using ROS 1 based application with Parameter Server.

Global Parameter Server **Architecture** Global Parameter Client ROS2 System(DDS Domain) System#A System#C System#B ROS2 System Parameter Global (Global) Global Parameter System#A Parameter Global Server System#C Parameter Server Parameter Parameter Server System#B Parameter Global Parameter Server Node Node (Client) (Client) Node (Client) Node Node (Client) Node (Client) (Client)

How to Run

Docker

```
$ docker run -it tomoyafujita/ros2_param_server:rolling /bin/bash
root@bf4d904e3800:~/colcon_ws# ros2 run persist_parameter_server server
```

Kubernetes

```
$ kubectl apply -f ./k8s/parameters.yaml
$ kubectl apply -f ./k8s/deployment.yaml
```



Issues and PRs are always welcome



https://github.com/fujitatomoya/ros2_persist_par ameter_server