

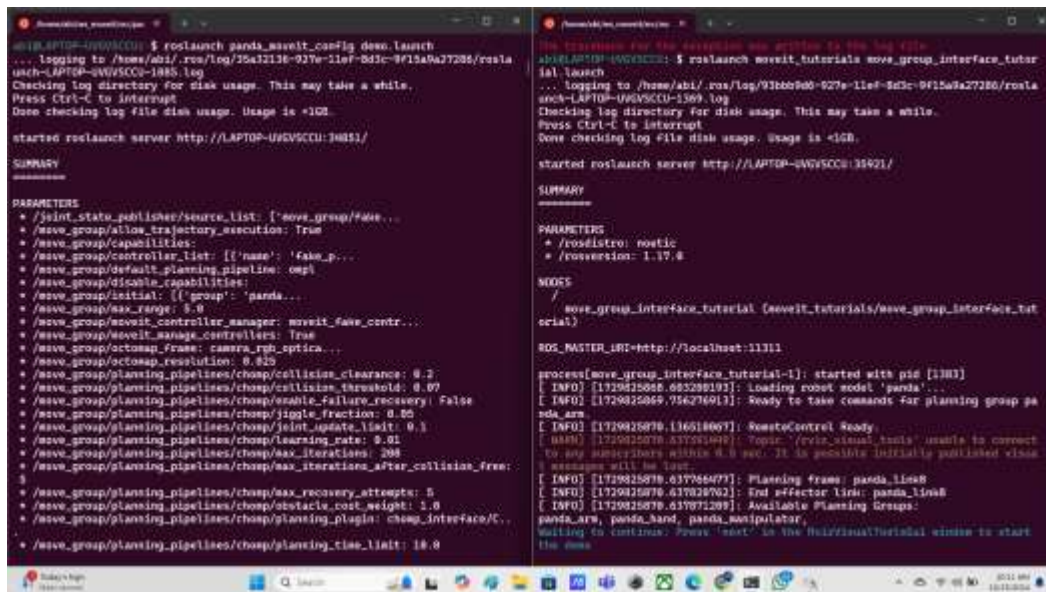
Nama : Ketut Satria Wibisana

NIM : 1103213148

Kelas : TK-45-G09

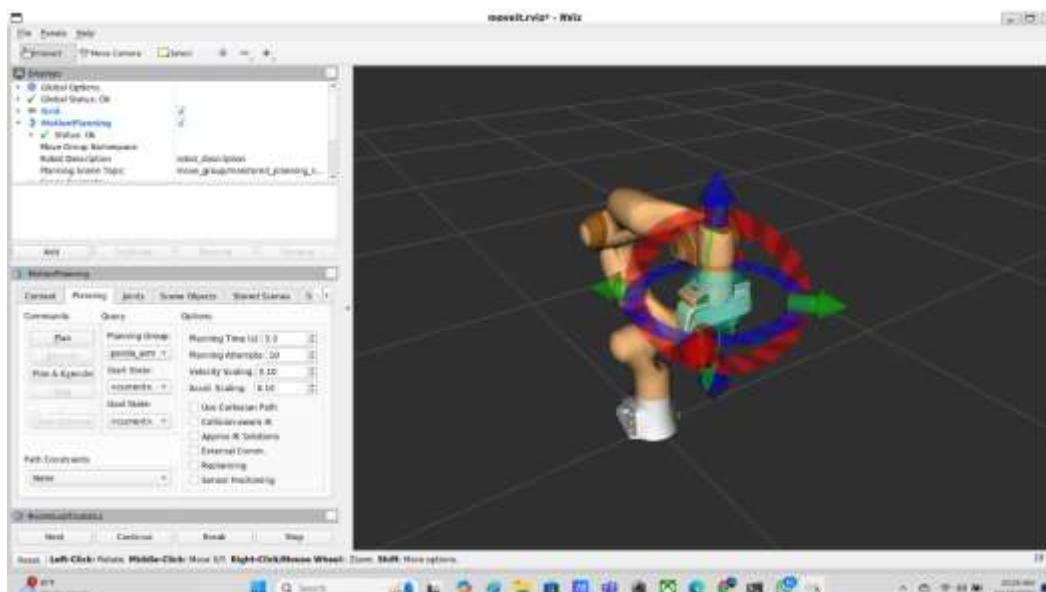
Move Group C++ Interface (MoveIt 1 Noetic)

1. Jalankan syntax `roslaunch panda_moveit_config demo.launch` untuk menjalankan simulasi robot panda di Rviz dan `roslaunch moveit_tutorials move_group_interface_tutorial.launch` untuk memberitahu bagaimana cara untuk menggunakan MoveGroupInterface menggunakan C++.



The image shows two terminal windows side-by-side. The left window displays the output of `roslaunch panda_moveit_config demo.launch`, showing logging to `/home/abi/.ros/log/5a12136-917e-11ef-8d3c-9f13a27286/roslaunch-LAPTOP-UWVSCC-1085.log` and starting the `roslaunch` server at `http://LAPTOP-UWVSCC:11311/`. It lists various parameters for the MoveIt configuration, including joint state publishers, trajectory execution, and planning pipelines. The right window displays the output of `roslaunch moveit_tutorials move_group_interface_tutorial.launch`, showing logging to `/home/abi/.ros/log/93bb9d0-927e-11ef-8d3c-9f13a27286/roslaunch-LAPTOP-UWVSCC-1085.log` and starting the `roslaunch` server at `http://LAPTOP-UWVSCC:11311/`. It lists parameters for the Noetic interface and shows the process `move_group_interface_tutorial-1` starting with PID 1103. Log messages indicate the loading of the robot model 'panda' and the readiness of the `MoveItControl` and `MoveItPlanning` components.

2. Setelah Rviz terbuka, klik Next di bagian RvizVisualToolsGui.



```
[ INFO] [1729827067.242048351]: Computed Cartesian path with 79 points (followed 100.000000% of requested trajectory)
[ INFO] [1729827070.15250624]: Planning request received for MoveGroup action. Forwarding to planning pipeline.
[ INFO] [1729827070.155395809]: Planner configuration 'panda_arm' will use p-lanner 'geometric::RRTConnect'. Additional configuration parameters will be set when the planner is constructed.
[ INFO] [1729827070.156049699]: panda_arm/panda_arm: Starting planning with 1 states already in datastructure
[ INFO] [1729827070.172856151]: panda_arm/panda_arm: Created 5 states (2 start + 3 goal)
[ INFO] [1729827070.173330459]: Solution found in 0.817088 seconds
[ INFO] [1729827070.223832263]: SimpleSetup: Path simplification took 0.809092 seconds and changed from 4 to 3 states
[ INFO] [1729827162.5509701935]: Planning request received for MoveGroup action. Forwarding to planning pipeline.
[ INFO] [1729827162.552591787]: Planner configuration 'panda_arm' will use p-lanner 'geometric::RRTConnect'. Additional configuration parameters will be set when the planner is constructed.
[ INFO] [1729827162.553681652]: panda_arm/panda_arm: Starting planning with 1 states already in datastructure
[ INFO] [1729827162.587794167]: panda_arm/panda_arm: Created 4 states (2 start + 2 goal)
[ INFO] [1729827162.588105458]: Solution found in 0.035294 seconds
[ INFO] [1729827162.614785373]: SimpleSetup: Path simplification took 0.026572 seconds and changed from 3 to 3 states
[ INFO] [1729827167.856388316]: Planning request received for MoveGroup action. Forwarding to planning pipeline.
[ INFO] [1729827167.856567967]: Planner configuration 'panda_arm' will use p-lanner 'geometric::RRTConnect'. Additional configuration parameters will be set when the planner is constructed.
[ INFO] [1729827167.856291288]: panda_arm/panda_arm: Starting planning with 1 states already in datastructure
[ INFO] [1729827167.879488180]: panda_arm/panda_arm: Created 5 states (2 start + 3 goal)
[ INFO] [1729827167.879638438]: Solution found in 0.823749 seconds
[ INFO] [1729827167.140182349]: SimpleSetup: Path simplification took 0.06436 seconds and changed from 4 to 4 states

Waiting to continue: Press 'next' in the RvizVisualToolsGui window to continue... Press 'continue'
[ INFO] [1729827070.235604712]: Visualizing plan 5 (with no obstacles)

Waiting to continue: next step... continuing
[ INFO] [1729827089.742896391]: Add an object into the world

Waiting to continue: Press 'next' in the RvizVisualToolsGui window to once the collision object appears in Rviz... continuing
[ INFO] [1729827182.517821853]: Visualizing plan 6 (pose goal move around cuboid)

Waiting to continue: Press 'next' in the RvizVisualToolsGui window once the plan is complete... continuing
[ INFO] [1729827139.659496884]: Attach the object to the robot

Waiting to continue: Press 'next' in the RvizVisualToolsGui window once the new object is attached to the robot... continuing
[ INFO] [1729827176.156161268]: Visualizing plan 7 (move around cuboid with cylinder)

Waiting to continue: Press 'next' in the RvizVisualToolsGui window once the plan is complete... continuing
[ INFO] [1729827387.769888040]: Detach the object from the robot

Waiting to continue: Press 'next' in the RvizVisualToolsGui window once the new object is detached from the robot... continuing
[ INFO] [1729827321.535481854]: Remove the objects from the world

Waiting to continue: Press 'next' in the RvizVisualToolsGui window to once the collision object disappears... continuing
[move_group_interface tutorial-1] process has finished cleanly
log file: /home/abir/.ros/log/44090206-027f-11ef-8dc1-9415a9a272e5/move_group_interface tutorial-1.log
all processes on machine have died, roslaunch will exit
shutting down processing monitor...
... shutting down processing monitor complete
done
[abir@LAPTOP-UNV5CCU: ~]$
```