

## Map Display Nodes

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### Overview

This page documents two nodes that display maps during and after the mapping process:

- **ShowCurrentMap:** Displays the current map during the mapping process alongside a ground truth map.
- **ShowFinishedMap:** Displays the final saved map after the mapping task alongside the ground truth map.

### ShowCurrentMapNode

The **ShowCurrentMapNode** subscribes to the `/map` topic, which publishes the current occupancy grid during the mapping process. It visualizes the map side by side with the ground truth map using OpenCV.

- Subscribed Topics:
  - **/map** : Receives the current occupancy grid (`nav_msgs::msg::OccupancyGrid`).
- Key functionality:
  - Converts the occupancy grid into an OpenCV image.
  - Displays the current map and the ground truth map side by side using OpenCV.

Example usage:

```
ros2 run your_package_name show_current_map
```

### ShowFinishedMapNode

The **ShowFinishedMapNode** loads the final saved map after the mapping task is complete, along with the ground truth map. It displays both maps side by side using OpenCV.

- Key functionality:
  - Loads the ground truth map and final map from disk.
  - Displays both maps side by side using OpenCV.

Example usage:

```
ros2 run your_package_name show_finished_map
```