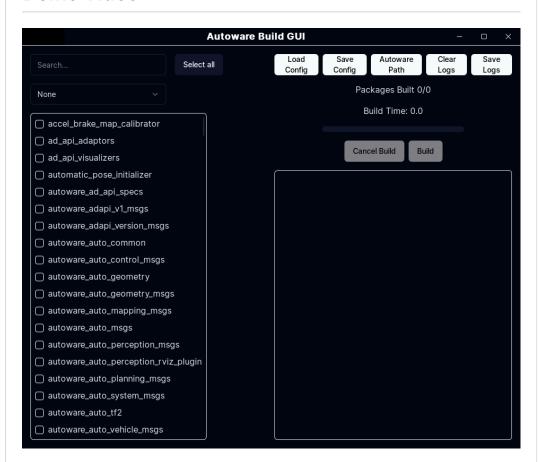# Introducing Autoware Build GUI: A User-Friendly Interface for Building Autoware Packages #3844

KhalilSelyan started this conversation in **Show and tell**
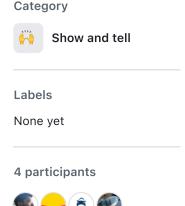

👤 **KhalilSelyan** on Sep 18, 2023   `Collaborator`

Hello Autoware Community!

I'm excited to introduce the **Autoware Build GUI**, a Tauri / NextJS application designed to simplify the process of building Autoware packages. With this GUI, users no longer need to rely solely on command prompts. Instead, they can utilize a user-friendly graphical interface to streamline their workflow.

Demo Video

Key Points:

- **User-Friendly Interface:** A graphical interface that's intuitive and easy to navigate.
- **Simplified Building Process:** Build Autoware packages with just a few clicks.

Key Features:

Category

🙌 Show and tell

Labels

None yet

---

4 participants

1. **Autoware Folder Path Setting:** Easily set the Autoware folder path, allowing the app to locate available packages.
2. **Automatic `src` Folder Creation:** If there's no `src` folder, the app will create one, clone the repos inside of `autoware.repos`, and run `rosdep install`.
3. **Config File Management:** Save a configuration file with all selected packages and load it whenever needed.
4. **Build Log Saving:** Preserve your build logs by saving them to a file for future reference.
5. **Minimal Setup Selections:** Choose from setups like AWSIM, Planning Simulator, and Logging Simulator to tailor your build process.
6. **Build Cancel:** In case the user forgot a specific package, they can always cancel the build and re-do as needed.

Getting Started:

Prerequisite:
Before using the Autoware Build GUI, ensure you have completed the initial setup as outlined in the Autoware Development Environment Setup Guide. This step is crucial for the smooth functioning of the GUI, as it does assume you've gone through that specific step.

1. **For general users:** Download and install the provided `.deb` file for a quick start.
2. **For Developers:** Developers can clone the repository, install the required packages, and run the development version of the app.

Autoware Build GUI Repository

Feedback & Contributions:

This tool was created to make the package building process more accessible and efficient for all Autoware users. Your feedback is invaluable! Whether it's a feature suggestion, a bug report, or general feedback, we're all ears. If you're a developer, feel free to dive into the code and make contributions. Together, we can make this tool even better for the entire Autoware community.

↑ 3   🚀 7

---

2 comments · 3 replies   Oldest   Newest | Top

xmfcx on Sep 19, 2023   Maintainer

https://github.com/orgs/autowarefoundation/discussions/2581 could be utilized to find the dependencies automatically.

↑ 2   2 replies

liuXinGangChina on Sep 19, 2023 · Collaborator

Great work!

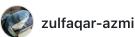**KhalilSelyan** on Sep 20, 2023 · Collaborator · Author   edited ▾

@xmfcx @mitsudome-r
When using the package above for planning simulator as an example, I wrote a small python script to parse the json file that gets output and extract the packages from it, After i run a build command using those packages these packages came out as missing from the necessary things to run planning simulator. as they didn't show up in the json file but were still needed to launch planning simulator (tried as well for logging simulator and it was the same result, these packages were missing)

```python
missing_packages = [
    "sample_sensor_kit_description",
    "sample_sensor_kit_launch",
    "sample_vehicle_description",
    "sample_vehicle_launch",
    "imu_description",
    "camera_description",
    "vls_description",
    "individual_params",
    "autoware_auto_perception_rviz_plugin",
    "bag_time_manager_rviz_plugin",
    "rtc_manager_rviz_plugin",
    "tier4_automatic_goal_rviz_plugin",
    "tier4_calibration_rviz_plugin",
    "tier4_control_rviz_plugin",
    "tier4_datetime_rviz_plugin",
    "tier4_debug_rviz_plugin",
    "tier4_localization_rviz_plugin",
    "tier4_perception_rviz_plugin",
    "tier4_planning_rviz_plugin",
    "tier4_screen_capture_rviz_plugin",
    "tier4_simulated_clock_rviz_plugin",
    "tier4_state_rviz_plugin",
    "tier4_traffic_light_rviz_plugin",
    "tier4_vehicle_rviz_plugin"
]
```

- the rviz plugins aren't necessary to actually launch but it does launch an rviz that is missing all the autoware plugins which i assume are also necessary for a normal use of autoware
- the other packages were required as the launch command would fail without them

zulfaqar-azmi-t4 on Sep 20, 2023 (Collaborator)

Thank you very much, the GUI is very useful in my opinion.
This is my suggestions for the improvement

1. Allow user to add build flag. For example, having a text box and user can add the related build flag.
2. Allow selection of build type, for example Release or Debug etc.

↑ 1   1 reply

KhalilSelyan on Oct 4, 2023 (Collaborator) (Author)

I've added these features in the latest update, you can let me know if you have any feedback towards this
https://github.com/leo-drive/autoware-build-gui/releases/tag/v1.0.1

❤️ 1