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Transition strategy to ROS 2 Humble

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Outline

- Background
- Proposal for the transition strategy
- Action items
- Requests to stakeholders

Background

REP 2000 says:

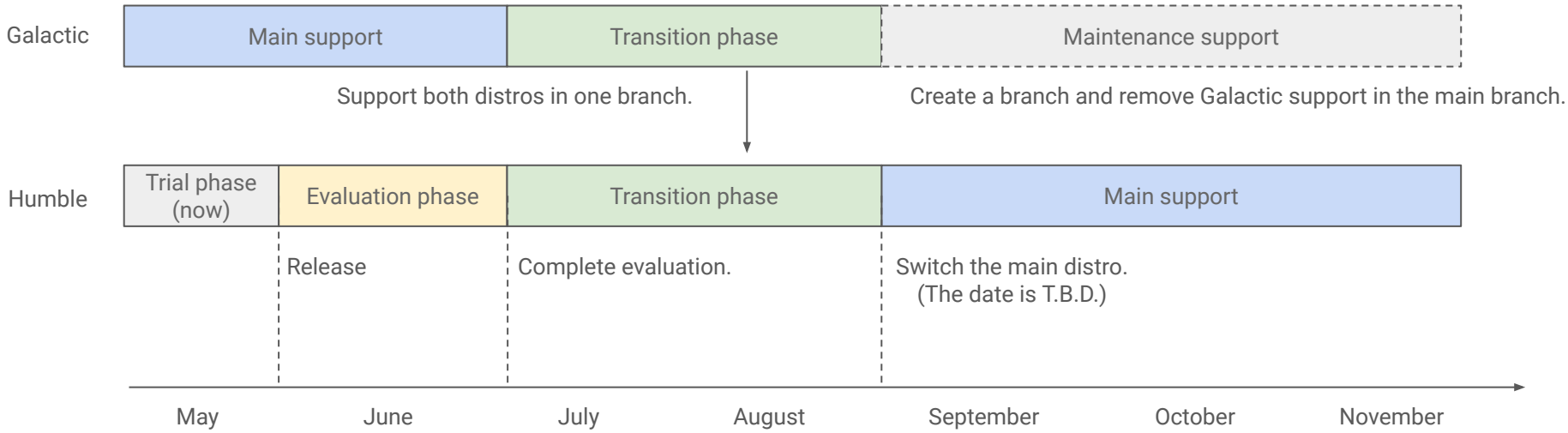
- ROS 2 Humble will be released at the end of May.
  - The main OS changes from Ubuntu 20.04 to 22.04.
  - Some APIs change as well.
- ROS 2 Galactic will be EOL at November 2022.
  - ROS 2 Foxy will be supported until 2023 but is still not supported by Autoware due to performance issues.

-> Transition is an upcoming issue.

For that:

- A transition trial is ongoing in advance.
  - https://github.com/autowarefoundation/autoware/pull/248
  - https://github.com/autowarefoundation/autoware.universe/issues/268
  - PR examples
- The transition strategy as the AWF is an open issue.
  - How long should we support Galactic?
  - When will we switch the main platform?

Proposal for the transition strategy



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Action items

For transition:

- Convert APIs for Humble.
  - Almost done in the trial.
- Determine the evaluation criteria, and evaluate as per the criteria.
  - Proposal: Scenario testing using TIER IV's platform and brief testing with real vehicles.
  - Reason:
    - Automated scenario testing is effective.
    - Few degradations are expected from Galactic to Humble.
- Determine the date to switch the main distro.
  - Proposal: Tentatively around the end of August. (If there are no special requests from stakeholders.)
  - Reason:
    - To reduce the maintenance cost.

For development efficiency:

- Prepare Docker images for each ROS distro.
- Support multiple distros in CI.
- Support releasing vendor packages.
  - It's because Autoware depends on a lot of vendor packages.
    - https://github.com/ANYbotics/grid_map/pull/347

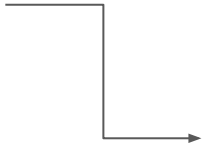
Requests to stakeholders

- Please give feedback on the action items.
  - Any missing items?
- Please provide your requirements for the transition strategy.
  - Timeline
    - Galactic support on the main branch can be extended to November at the longest.
  - Evaluation criteria
  - Development environment
  - Ubuntu 22.04 support in reference hardware
  - etc.

Shapes

Filled

Transparent



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