# ROS 2 TSC Contribution Report 2023-06-15

#### Guidelines

- Each TSC representative: Please fill in your organization's section with the engineering activities and other contributions that your organisation has made to ROS 2.
- Please fill your section prior to our next meeting on 2023-06-15.
- This report covers work done since the previous TSC meeting: **2023-05-18 2023-06-15**. Don't include work done earlier or planned for the future.
- Contributions may come from you, your colleagues, and/or external collaborators that you're funding to do the work that's reported.
- Each package to which you're contributing should be included on the list of <u>ROS 2</u> <u>Common Packages</u>.
- When possible, provide links to your contributions (e.g., pull requests).
- Provide enough detail for everyone to understand what was done.
- •
- These reports will be included in the published meeting minutes.
- Example:
  - o foo\_org/bar\_pkg
    - Implemented the whizbang feature (<u>PR</u>)
    - Investigated and reported on the superbad bug (<u>comment</u>)

#### Reports

- Amazon: Aaron Blasdel
  - 0
- Apex.Al: Lyle Johnson
  - ros2/rcl
    - <u>Use TRACETOOLS\_prefix for tracepoint-related macros</u> Christophe Bedard (merged 2023-06-08)
  - ros2/rclcpp
    - <u>Use TRACETOOLS prefix for tracepoint-related macros</u> Christophe Bedard (merged 2023-06-08)
  - ros2/rmw\_cyclonedds
    - <u>Use TRACETOOLS\_prefix for tracepoint-related macros</u> Christophe Bedard (merged 2023-06-08)
  - ros2/rmw\_fastrtps
    - <u>Use TRACETOOLS prefix for tracepoint-related macros</u> Christophe Bedard (merged 2023-06-08)
  - ros2/ros2\_documentation
    - Mention not needing to source workspace before running tests -
    - Christophe Bedard (merged 2023-05-24)
  - ros2/ros2\_tracing
    - Add TRACETOOLS prefix to tracepoint-related public macros -Christophe Bedard (merged 2023-06-08)

- ros2/rosbag2
  - [humble] Add recorder stop() API (backport #1300) Michael Orlov (merged 2023-06-13)
  - Gracefully handle SIGINT and SIGTERM in rosbag2 recorder Michael Orlov (merged 2023-06-13)
  - Fix for possible freeze in Recorder::stop() Michael Orlov (merged 2023-06-10)
  - <u>Bump humble to 0.15.6</u> Michael Orlov (merged 2023-06-06)
  - <u>Set CPU affinity for producers and recorder in</u> rosbag2\_performance\_benchmarking - Michael Orlov (merged 2023-05-31)
  - [Foxy] revert #1198 "rosbag2\_storage\_mcap: merge into rosbag2" -Michael Orlov (merged 2023-05-26)
  - Add CPU usage to rosbag2\_performance\_benchmarking results report -Michael Orlov (merged 2023-05-26)
  - Add extra checks in execute and wait until completion(..) Michael Orlov (merged 2023-05-26)
  - [foxy] Disable test record qos profiles tests on Windows Michael Orlov (merged 2023-05-25)
- Bosch: Christian Henkel
  - ros/diagnostics
    - Self test publishes the service under the node name, again
    - Empty default aggregator base\_path
  - ros2/rclc
    - Cl updates
    - Data structures interfaces for multi-threaded executor
- Canonical: Jeremie Deray
  - 0
- eProsima: Jaime Martin Losa
  - Fast DDS Spy
  - WIP: Better X-Types support.
  - Micro-ROS irwin release.
- Foxglove: Adrian Macneil
  - foxglove/mcap
    - <u>Update copy on MCAP home page</u> Esther S. Weon (merged 2023-06-12)
    - Add live demo to website Jacob Bandes-Storch (merged 2023-06-06)
    - <u>fix footnotes in feature matrix</u> Jacob Bandes-Storch (merged 2023-06-09)
    - <u>Make demo copy more concise</u> Esther S. Weon (merged 2023-06-08)
    - <u>Docs: rearrange record ordering more logically</u> Wyatt Alt (merged 2023-06-08)
    - <u>Use 'API reference' for consistency with previously made changes</u> -Esther S. Weon (merged 2023-06-07)
    - <u>Use sentence case in footer</u> Esther S. Weon (merged 2023-06-07)
    - <u>CLI: Add capability to specify attachment name</u> Wyatt Alt (merged 2023-06-06)

- <u>Website: Another icon fix</u> Adrian Macneil (merged 2023-05-31)
- <u>fix link</u> james-rms (merged 2023-05-31)
- cpp: bump to 1.1.0 Emerson Knapp (merged 2023-05-30)
- <u>CPP: add getter for metadata indices</u> Emerson Knapp (merged 2023-05-30)
- <u>Auto detect Go version in GitHub Actions</u> Adrian Macneil (merged 2023-05-24)
- <u>Website fixes</u> Adrian Macneil (merged 2023-05-24)
- <u>New website</u> Adrian Macneil (merged 2023-05-23)
- <u>CLI: remove MCAP doctor on chunks with no messages, schemaless</u> <u>channels</u> - james-rms (merged 2023-05-17)
- <u>cpp: fix header parsing</u> james-rms (merged 2023-05-16)
- foxglove/rosmsg
  - Update readme to have valid ros 1 schema Sam Nosenzo (merged 2023-06-09)
- o foxglove/rosmsg2-serialization
  - Fix serde of empty message definition Hans-Joachim Krauch (merged 2023-06-07)
- foxglove/studio
  - 104 commits
- ros-tooling/setup-ros-docker
  - Add Iron and remove Galactic Emerson Knapp (merged 2023-05-24)
- ros2/rclpy
  - Include type hash in topic endpoint info (rep2011) Hans-Joachim Krauch (merged 2023-06-13)
- ros2/ros2\_documentation
  - [Iron] Add release notes for REP-2011 features Emerson Knapp (merged 2023-06-06)
- o ros2/ros2cli
  - Add marshalling functions for rclpy.type\_hash.TypeHash (rep2011) -Hans-Joachim Krauch (merged 2023-06-13)
- ros2/rosbag2
  - [humble] Don't crash when type definition cannot be found, and find srv defs if available - Emerson Knapp (merged 2023-06-15)
  - <u>Don't crash when type definition cannot be found</u> Emerson Knapp (merged 2023-05-25)
  - [iron] Add ROS\_DISTRO metadata record to mcap file when opening for writing - Emerson Knapp (merged 2023-06-12)
  - When using sim time, wait for /clock before beginning recording -Emerson Knapp (merged 2023-06-12)
  - Rewrite TimeControllerClockTest.unpaused\_sleep\_returns\_true to be correct - Emerson Knapp (merged 2023-06-12)
  - Update iron branch action CI to target Iron distro Emerson Knapp (merged 2023-06-07)
  - <u>Don't record sim-time messages before first /clock</u> Emerson Knapp (merged 2023-06-07)
  - <u>Revert "Don't record sim-time messages before first /clock (#1354)"</u> -Emerson Knapp (merged 2023-06-07)

- Implement storing and loading ROS\_DISTRO from metadata.yaml and mcap files - Emerson Knapp (merged 2023-06-03)
- [Humble] Deconstruct compression classloader factory in correct order with classes loaded - Emerson Knapp (merged 2023-05-31)
- <u>Update mcap to v1.1.0</u> Emerson Knapp (merged 2023-05-30)
- [foxy] Fix YAML\_CPP\_DLL warnings on Windows Emerson Knapp (merged 2023-05-26)
- [Iron] (pre-backport #1337) Change subscriptions from GenericSubscripton to SubscriptionBase - Emerson Knapp (merged 2023-05-18)
- <u>Change subscriptions from GenericSubscripton to SubscriptionBase</u> -Emerson Knapp (merged 2023-05-18)
- o ros2/rosidl
  - Fix deprecation warnings for message constants Emerson Knapp (merged 2023-06-07)
- ros2/rosidl\_typesupport
  - <u>Don't override user provided compile definitions</u> Emerson Knapp (merged 2023-06-07)
- ros2/rosidl\_typesupport\_fastrtps
  - <u>PR 104 (backport 102->humble) Resolve merge conflict</u> Emerson Knapp (merged 2023-06-13)
  - Avoid redundant declarations in generated code for services and actions -Emerson Knapp (merged 2023-06-07)
- Intel: Harold Yang
  - 0

## • Intrinsic: Chris Lalancette

- 216 contributions to the ament, catkin, colcon, ros, ros-drivers, ros-drivers-gbp, ros-gbp, ros-geographic-info, ros-infrastructure, ros-perception, ros-planning, ros-simulation, ros-tooling, ros-visualization, ros2, ros2-gbp organizations
- Iron release
- Work on speeding up test times: <u>https://github.com/ros2/demos/pull/641</u>
- Follow-up work on REP-2011
- Follow-up work on closing out <u>https://github.com/osrf/ros2\_test\_cases</u> for the Iron release
- Planning for the Jazzy release

## • iRobot: Alberto Soragna

- Fix ament-clang-tidy linter https://github.com/ament/ament\_lint/pull/441
- Add support for asynchronous "change state" callbacks in lifecycle nodes https://github.com/ros2/rclcpp/pull/2214
- Clarify and improve separation of concerns in rclcpp lifecycle repository https://github.com/ros2/rclcpp/pull/2211
- $\circ$   $\;$  Work on ros2 compilation time improvement  $\;$
- Microsoft: Lou Amadio
  - VSCode ROS Extension
    - 0.9.6 Pre-release update coming soon.
    - Replacing the broken RobotWebTools based URDF Editor
    - Joint, Link position and orientation visualization
    - Grid & Background Color customizations

### • PickNik: Henning Kayser

- ros-planning/moveit2
  - Set response planner id in planner plugins and warn if it is not set -Sebastian Jahr (merged 2023-06-15)
  - Add stomp default config to moveit\_config\_utils Sebastian Jahr (merged 2023-06-15)
  - Fix the launching of Servo as a node component AndyZe (merged 2023-06-02)
  - Fix Servo suddenHalt() to halt at original state, not commanded -Sebastian Castro (merged 2023-06-06)
  - <u>Cleanup move\_group CMake</u> Tyler Weaver (merged 2023-06-05)
  - <u>Simplify controller manager namespacing</u> Stephanie Eng (merged 2023-06-05)
  - <u>Suppress redundant error message in CSM</u> Henning Kayser (merged 2023-06-05)
  - Warn if optimization objective does not match expected values -Stephanie Eng (merged 2023-06-02)
  - <u>Revert central differencing calculation in servo</u> Sebastian Castro (merged 2023-06-02)
  - Fix servo speed scaling YAML parameters Sebastian Castro (merged 2023-05-30)
  - <u>Cleanup to ros\_control\_interface and trajectory execution</u> Stephanie Eng (merged 2023-05-30)
  - <u>Reset filters when starting Movelt Servo calculations</u> Sebastian Castro (merged 2023-05-24)
  - Ensure that planner id is set Sebastian Jahr (merged 2023-05-24)
  - <u>Use isnan in DepthImageOctomapUpdater</u> Ezra Brooks (merged 2023-05-23)
  - Ignore more common tooling-generated folders Ezra Brooks (merged 2023-05-23)
  - <u>Use gcov instead of lcov for sonar</u> Tyler Weaver (merged 2023-05-23)
  - Add @brief descriptions for plan\_request\_adapters Sebastian Jahr (merged 2023-05-23)
  - Enhance pilz can service request Sebastian Jahr (merged 2023-05-23)
  - <u>Run SonarCloud only on push</u> Tyler Weaver (merged 2023-05-22)
  - <u>Change servo collision checking parameters to dynamically update</u> -Sebastian Castro (merged 2023-05-22)
  - Add sonar cloud testing to CI Tyler Weaver (merged 2023-05-19)
  - <u>Make loggers static or move into anonymous namespace</u> Sebastian Jahr (merged 2023-05-19)
  - Parse xacro args from .setup\_assistant config in Movelt Configs Builder -Anthony Baker (merged 2023-05-15)
  - Add documentation and cleanups for PlanningRequestAdapter and <u>PlanningRequestAdapterChain classes</u> - Sebastian Jahr (merged 2023-05-12)
  - <u>Migrate STOMP from ros-planning/stomp\_moveit</u> Henning Kayser (merged 2023-05-11)
- ros-planning/moveit2\_tutorials

- Fix typos and formatting in Getting Started and Python API tutorials -Sebastian Castro (merged 2023-06-06)
- <u>Bulleted list of ros instasll instructions</u> Tyler Weaver (merged 2023-05-25)
- <u>Python fix execute() API</u> Henning Kayser (merged 2023-05-25)
- Fix broken link formatting on start page Henning Kayser (merged 2023-05-25)
- Prepare for World Movelt Day 2023 Tyler Weaver (merged 2023-05-25)
- Main is the default branch Tyler Weaver (merged 2023-05-24)
- Update STOMP Tutorial for Movelt 2 version Henning Kayser (merged 2023-05-16)
- <u>Add moveit msgs to repos file</u> Tyler Weaver (merged 2023-05-12)
- Remove deprecated call to moveitcpp->execute() Stephanie Eng (merged 2023-05-12)
- ros-planning/moveit\_resources
  - Create Panda URDF Xacro, restore URDF for RobotModelTestUtils -Henning Kayser (merged 2023-06-02)
  - Fix Panda description for Gazebo Sim Henning Kayser (merged 2023-05-31)
  - Migrate benchmarking package to separate repo Henning Kayser (merged 2023-05-18)
  - Add stomp config Sebastian Jahr (merged 2023-05-14)
- ros-planning/moveit\_tutorials
  - <u>Remove redundant closing tag</u> Henning Kayser (merged 2023-05-22)
  - Add documentation for the Ruckig planning request adapter AndyZe (merged 2023-05-19)
- ros-tooling/action-ros-ci
  - Add optional ref arg for branch to pull Alex Moriarty (merged 2023-05-31)
  - Add Iron to valid distros Alex Moriarty (merged 2023-05-30)

C

- ROBOTIS: Will Son
  - TurtleBot3 ROS2 Humble manual updates
    - https://github.com/ROBOTIS-GIT/emanual/pull/1543
  - Updating turtlebot3 humble package to use ROS2 control
    - https://github.com/ROBOTIS-GIT/turtlebot3/tree/hotfix-humble
- ROS Industrial: Matt Robinson
  - Community/Promotional
    - Co-hosted open robotics meeting in May co-located with Automate in collaboration with Foxglove, PickNik, and Intrinsic.
    - Hosted ROS-Industrial Americas Annual Meeting in Detroit on May 25. Community live stream was available. Recordings of all talks will be presented and available on the ROS-I YouTube channel for the community.
    - Updated Industrial Training Repo Documentation and Training Exercises:
      - <u>https://github.com/ros-industrial/industrial\_training/pull/394</u>
    - Official release of ROS 2 Yaskawa Motoman Driver

- Shared blog post on basics of utilizing ROS 2 on Windows -<u>https://rosindustrial.org/news/2023/5/10/the-basics-of-getting-up-and-runn</u> <u>ing-with-ros-2-in-windows</u>
- Technical
  - Ported and reachitected ROS Reach for ROS 2
    - https://github.com/ros-industrial/reach/pull/43
    - https://github.com/ros-industrial/reach/pull/44
    - Initial IK Seed: <u>https://github.com/ros-industrial/reach/pull/46</u>
  - Ros2\_canopen: Sync humble with Beta (0.2.0) release https://github.com/ros-industrial/ros2\_canopen/pull/144
  - Reviews
    - https://github.com/ros2/ros2 documentation/pull/3659
  - Issues
    - <u>https://github.com/ros-planning/moveit2/issues/2182</u>
    - <u>https://github.com/Yaskawa-Global/motoros2/issues/18</u> DX200 support
- Samsung: ???
- Sony: Tomoya Fujita
  - eProsima/Fast-DDS-Gen
    - "call register message type once" | Chen Lihui | https://github.com/eProsima/Fast-DDS-Gen/pull/185 (merged 2023-05-31)
  - ros2/demos
    - "fix readme for topic\_monitor." | Tomoya Fujita | https://github.com/ros2/demos/pull/630 (merged 2023-05-19)
  - o ros2/rcl
    - "test publisher/subscription with the c/cpp typesupport for test\_msgs::msg::array" | Chen Lihui | https://github.com/ros2/rcl/pull/1074 (merged 2023-06-14)
    - "validation result should be used to print the error message." | Tomoya Fujita | https://github.com/ros2/rcl/pull/1077 (merged 2023-06-13)
    - "fix comment" | Chen Lihui | https://github.com/ros2/rcl/pull/1073 (merged 2023-06-02)
  - ros2/rclcpp
    - "remove nolint since ament\_cpplint updated for the c++17 header" | Chen Lihui | https://github.com/ros2/rclcpp/pull/2198 (merged 2023-05-23)
  - ros2/ros2\_documentation
    - "to fix warning and use jammy" | Chen Lihui | https://github.com/ros2/ros2\_documentation/pull/3679 (merged 2023-06-05)
    - "Improve handling of dynamic discovery." | Tomoya Fujita | https://github.com/ros2/ros2\_documentation/pull/3596 (merged 2023-06-10)
    - "Fast-DDS uses SHM transport by default, so network traffic cannot be …" | Tomoya Fujita | https://github.com/ros2/ros2\_documentation/pull/3683 (merged 2023-06-05)

- "use jammy instead of focal for iron" | Chen Lihui | https://github.com/ros2/ros2\_documentation/pull/3684 (merged 2023-05-25)
- "update doc for the building ros2 package with eclipse" | Chen Lihui | https://github.com/ros2/ros2\_documentation/pull/3643 (merged 2023-05-20)
- ros2/rosbag2
  - "Fix wrong descritpion for '--ignore-leaf-topics'" | Barry Xu | https://github.com/ros2/rosbag2/pull/1344 (merged 2023-05-23)

0

## • GVSC: Jerry Towler (SwRI)

- Rust WG back in action with GVSC support: <u>https://discourse.ros.org/t/april-2023-rust-meeting-2023-04-10/30738/4?u=jhdcs</u>
- Various pull requests and reviews
  - https://github.com/swri-robotics/marti\_common/pull/705
  - https://github.com/swri-robotics/swri\_console/pull/58
  - <u>https://github.com/swri-robotics/gps\_umd/pull/71</u>
  - https://github.com/swri-robotics/gps\_umd/pull/72
  - https://github.com/ros/rosdistro/pull/36695
  - https://github.com/ros/rosdistro/pull/36702
  - https://github.com/ros/rosdistro/pull/36705
  - https://github.com/swri-robotics/geos\_cmake\_module/pull/1
  - <u>https://github.com/swri-robotics/marti\_common/pull/696</u>
  - https://github.com/swri-robotics/marti\_common/pull/694
  - https://github.com/swri-robotics/marti\_common/pull/704
  - https://github.com/swri-robotics/swri\_console/pull/57
  - <u>https://github.com/swri-robotics/marti\_common/pull/694 Makes our</u> <u>ROS2 transform behavior consistent with ROS1</u>
  - <u>https://github.com/swri-robotics/marti\_common/pull/696 Add ability to initialize origin in transformer from parameter</u>
  - <u>https://github.com/swri-robotics/marti\_common/pull/704 Try to fix</u> <u>dependencies export for Marti common. This is the ugly ament/cmake</u> <u>confusion</u>
  - <u>https://github.com/swri-robotics/marti\_messages/pull/124 This is similar</u> to the prior issue. Something in Humble broke our exports, and I'm fixing <u>it</u>
  - <u>https://github.com/swri-robotics/geos\_cmake\_module/pull/1 This is new</u> to ROS2. This is a CMake module we maintain so the Geos library can be found. We had it for ROS1, and now it's available for ROS2.
- Toyota Research Institute: Ian McMahon
  - Improve Handling of Dynamic Discovery (tracking issue ros2/ros2#1359)
    - ros2/ros2\_documentation#3519 (merged)
  - Porting RViz Plugins to ROS 2
    - Effort Visualization Plugin ros2/rviz#990 (in review)
    - TwistStamped and AccelStamped Plugins ros2/rviz#991 (in review)
- Wind River: Andrei Kholodnyi

- Ported humble release to the latest VxWorks 23.03, <u>https://github.com/razr/vxworks7-ros2-build/tree/humble-release-23.03</u>
- Ported Iron release to the latest VxWorks 23.03
- https://github.com/razr/vxworks7-ros2-build/tree/iron-release-23.03
- Zettascale: Angelo Corsaro
  - Cyclone DDS
    - Batched writes via QoS + support for flushing batches writes on Publisher or DomainParticipant
    - Support for building/using CDR serializer as a separate project
    - Option to control output directory in C++ backend of IDLC compiler
    - DurabilityService QoS policy support in C++
    - Fix for handling variably-sized data via IceOryx using C++ API
    - Set NODELAY when using TCP
    - Corrected handling of leading/trailing whitespace in distinguished names in certificates
    - Corrected handling of arrays with missing or 0 bounds
    - Fixes in creating type information for dynamically constructed types
    - Correct setting "default" flag on enumerated types in Python
    - Fix handling of uint8 bitmasks in assignability check
- Fix for "keyless" topic trait in inherited types in C++
  - Zenoh
    - Released Zenoh 0.7.2
    - Complete C++ API
    - Query payload
    - C++ API is now compatible with both zenoh-c and zenoh-pico
    - TLS supports now "Let's Encrypt" and IP-based certificates
    - Key formatters
    - Transport protocol whitelisting
    - Zenoh and ROS1 bridge
    - Liveliness assertion
    - Transparent compression
  - Community Rep: Olivier Michel
    - webots\_ros2 version 2023.0.4 (released 25.05.2023)
      - Dropped Foxy support (<u>https://github.com/cyberbotics/webots\_ros2/pull/756</u>).
      - Added Iron support (<u>https://github.com/cyberbotics/webots\_ros2/pull/756</u> & https://github.com/cyberbotics/webots\_ros2/pull/760)
    - webots\_ros2 version 2023.1.0 (to be released with Webots R2023b) with the following new updates:
      - Added a new WebotsController node that uses the extern controller launcher to start driver plugins (<u>https://github.com/cyberbotics/webots\_ros2/pull/746</u>).
      - Added installation of generic robot window library in the driver package (<u>https://github.com/cyberbotics/webots\_ros2/pull/742</u>).

- Fixed Camera and RangeFinder default topic names (<u>https://github.com/cyberbotics/webots\_ros2/pull/761</u>).
- Added VacuumGripper device (<u>https://github.com/cyberbotics/webots\_ros2/pull/771</u>).
- Fixed simulation reset in Navigation packages (<u>https://github.com/cyberbotics/webots\_ros2/pull/764</u>).
- Added new automatic synchronization workflow for master to develop branches (<u>https://github.com/cyberbotics/webots\_ros2/pull/753</u>).
- Added Iron tests (Industrial CI) (<u>https://github.com/cyberbotics/webots\_ros2/pull/760</u>).
- webots\_ros2 documentation:
  - Added new installation tutorials and split Setting up a robot simulation in two parts (<u>https://github.com/ros2/ros2\_documentation/pull/3357</u>).
  - Once version 2023.1.0 is out, the simulation tutorial will be updated and a new tutorial on simulation reset will be added.