ROS 2 Message Packages API Review

```
ROS 2 Message Packages API Review
   Process
   Repositories:
      common_interfaces
          actionlib msgs
          diagonstic_msgs
          geometry_msgs
          nav_msgs
          sensor msgs
          shape_msgs
          std_msgs
          std_srvs
          stereo_msgs
          trajectory_msgs
          visualization_msgs
      example interfaces
      rcl interfaces
      action msgs
          builtin interfaces
          composition interfaces
          <u>lifecycle_msgs</u>
          rcl interfaces
          rosgraph_msgs
          test_msgs
      unique identifier msgs
      navigation_msgs
          map_msgs
          move base actions
   <u>Uncategoriezed Suggested Changes or Comments</u>
      std msgs/Header
```

Process

Please read through the listed APIs and if you have any comments fill them out here: https://docs.google.com/forms/d/e/1FAIpQLSeNogqYD0tPe7CKBP0dpSqFmf54NzWpj8ksN8vuAq55Jupylg/viewform?usp=sf_link

These comments will be used as an starting point for the review.

Repositories:

common_interfaces

actionlib_msgs

Msg

- https://github.com/ros2/common interfaces/blob/master/actionlib msgs/msg/GoalID.msg
- https://github.com/ros2/common_interfaces/blob/master/actionlib_msgs/msg/GoalStatus.
 msg

diagonstic_msgs

Msg

- https://github.com/ros2/common_interfaces/blob/master/diagnostic_msgs/msg/DiagnosticcStatus.msg
- https://github.com/ros2/common_interfaces/blob/master/diagnostic_msgs/msg/KeyValue.msg

Srv

- https://github.com/ros2/common_interfaces/blob/master/diagnostic_msgs/srv/AddDiagnostic.srv
- https://github.com/ros2/common_interfaces/blob/master/diagnostic_msgs/srv/SelfTest.sr
 v

geometry msgs

Msg

https://github.com/ros2/common interfaces/blob/master/geometry msgs/msg/Accel.msg

- https://github.com/ros2/common_interfaces/blob/master/geometry_msgs/msg/AccelStam-ped.msg
- https://github.com/ros2/common_interfaces/blob/master/geometry_msgs/msg/AccelWith-Covariance.msg
- https://github.com/ros2/common_interfaces/blob/master/geometry_msgs/msg/AccelWithCovarianceStamped.msg
- https://github.com/ros2/common_interfaces/blob/master/geometry_msgs/msg/lnertia.ms
 g
- https://github.com/ros2/common_interfaces/blob/master/geometry_msgs/msg/InertiaSta
 mped.msg
- https://github.com/ros2/common interfaces/blob/master/geometry msqs/msq/Point.msq
- https://github.com/ros2/common_interfaces/blob/master/geometry_msgs/msg/Point32.m
 sg
- https://github.com/ros2/common_interfaces/blob/master/geometry_msgs/msg/PointStam
 ped.msg
- https://github.com/ros2/common_interfaces/blob/master/geometry_msgs/msg/Polygon.m
 sq
- https://github.com/ros2/common_interfaces/blob/master/geometry_msgs/msg/PolygonSt_amped.msg
- https://github.com/ros2/common interfaces/blob/master/geometry msgs/msg/Pose.msg
- https://github.com/ros2/common_interfaces/blob/master/geometry_msgs/msg/Pose2D.m
 sq
- https://github.com/ros2/common_interfaces/blob/master/geometry_msgs/msg/PoseArray
 .msg
- https://github.com/ros2/common_interfaces/blob/master/geometry_msgs/msg/PoseStam
 ped.msg
- https://github.com/ros2/common_interfaces/blob/master/geometry_msgs/msg/PoseWithCovariance.msg
- https://github.com/ros2/common_interfaces/blob/master/geometry_msgs/msg/PoseWith-CovarianceStamped.msg
- https://github.com/ros2/common_interfaces/blob/master/geometry_msgs/msg/Quaternio
 n.msg
- https://github.com/ros2/common_interfaces/blob/master/geometry_msgs/msg/Quaternio
 nStamped.msg
- https://github.com/ros2/common_interfaces/blob/master/geometry_msgs/msg/Transform.
 msg/msg/msg/msg/Transform.
- https://github.com/ros2/common_interfaces/blob/master/geometry_msgs/msg/Transform-
 https://github.com/ros2/common_interfaces/blob/master/geometry_msgs/msg/Transform-
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 https://github.com/ros2/common_interfaces/blob/msgs/msg/Transform-
 <a href="https://github.com/ros2/com/ros2/com/ros2/com
- https://github.com/ros2/common interfaces/blob/master/geometry msgs/msg/Twist.msg
- https://github.com/ros2/common_interfaces/blob/master/geometry_msgs/msg/TwistStam
 ped.msg
- https://github.com/ros2/common_interfaces/blob/master/geometry_msgs/msg/TwistWith
 Covariance.msg

- https://github.com/ros2/common_interfaces/blob/master/geometry_msgs/msg/TwistWith
 CovarianceStamped.msg
- https://github.com/ros2/common_interfaces/blob/master/geometry_msgs/msg/Vector3.m
 sg
- https://github.com/ros2/common_interfaces/blob/master/geometry_msgs/msg/Vector3St
 amped.msg
- https://github.com/ros2/common_interfaces/blob/master/geometry_msgs/msg/Wrench.m
 sq
- https://github.com/ros2/common_interfaces/blob/master/geometry_msgs/msg/WrenchSt
 amped.msg

nav_msgs

Msg

- https://github.com/ros2/common interfaces/blob/master/nav msgs/msg/GridCells.msg
- https://github.com/ros2/common_interfaces/blob/master/nav_msgs/msg/MapMetaData.m
 sq
- https://github.com/ros2/common_interfaces/blob/master/nav_msgs/msg/OccupancyGrid.
 msg
- https://github.com/ros2/common interfaces/blob/master/nav msgs/msg/Odometry.msg
- https://github.com/ros2/common interfaces/blob/master/nav msgs/msg/Path.msg

Srv

- https://github.com/ros2/common_interfaces/blob/master/nav_msgs/srv/GetMap.srv
- https://github.com/ros2/common interfaces/blob/master/nav msgs/srv/GetPlan.srv
- https://github.com/ros2/common_interfaces/blob/master/nav_msgs/srv/SetMap.srv

sensor msgs

Msg

- https://github.com/ros2/common_interfaces/blob/master/sensor_msgs/msg/BatteryState.
 msg
- https://github.com/ros2/common_interfaces/blob/master/sensor_msgs/msg/CameraInfo.
 msg
- https://github.com/ros2/common_interfaces/blob/master/sensor_msgs/msg/ChannelFloat32.msg
- https://github.com/ros2/common_interfaces/blob/master/sensor_msgs/msg/Compressed1
 mage.msg
- https://github.com/ros2/common_interfaces/blob/master/sensor_msgs/msg/FluidPressure.msg
 e.msg
- https://github.com/ros2/common_interfaces/blob/master/sensor_msgs/msg/Illuminance.
 msq
- https://github.com/ros2/common_interfaces/blob/master/sensor_msgs/msg/lmage.msg
- https://github.com/ros2/common interfaces/blob/master/sensor msgs/msg/lmu.msg

- https://github.com/ros2/common_interfaces/blob/master/sensor_msgs/msg/JointState.m
 sq
- https://github.com/ros2/common_interfaces/blob/master/sensor_msgs/msg/Joy.msg
- https://github.com/ros2/common_interfaces/blob/master/sensor_msgs/msg/JoyFeedback
 .msg
- https://github.com/ros2/common_interfaces/blob/master/sensor_msgs/msg/JoyFeedback
 Array.msg
- https://github.com/ros2/common_interfaces/blob/master/sensor_msgs/msg/LaserEcho.m
 sq
- https://github.com/ros2/common_interfaces/blob/master/sensor_msgs/msg/LaserScan.m
- https://github.com/ros2/common_interfaces/blob/master/sensor_msgs/msg/MagneticField.msg
 d.msg
- https://github.com/ros2/common_interfaces/blob/master/sensor_msgs/msg/MultiEchoLaserScan.msg
- https://github.com/ros2/common_interfaces/blob/master/sensor_msgs/msg/NavSatFix.m
 sq
- https://github.com/ros2/common_interfaces/blob/master/sensor_msgs/msg/NavSatStatus.msg
- https://github.com/ros2/common_interfaces/blob/master/sensor_msgs/msg/PointCloud.m
 sg
- https://github.com/ros2/common_interfaces/blob/master/sensor_msgs/msg/PointCloud2.
 msq
- https://github.com/ros2/common_interfaces/blob/master/sensor_msgs/msg/PointField.m
 sq
- https://github.com/ros2/common interfaces/blob/master/sensor msgs/msg/Range.msg
- https://github.com/ros2/common_interfaces/blob/master/sensor_msgs/msg/RegionOfInterest.msg
- https://github.com/ros2/common_interfaces/blob/master/sensor_msgs/msg/RelativeHumi dity.msg
- https://github.com/ros2/common_interfaces/blob/master/sensor_msgs/msg/Temperature.
 msg
- https://github.com/ros2/common_interfaces/blob/master/sensor_msgs/msg/TimeReference.msg

Srv

https://github.com/ros2/common_interfaces/blob/master/sensor_msgs/srv/SetCameraInf

 o.srv

Implementations

Distortion model constants:
 https://github.com/ros2/common_interfaces/blob/master/sensor_msgs/include/sensor_msgs/distortion_models.hpp

Fill image:

https://github.com/ros2/common_interfaces/blob/master/sensor_msgs/include/sensor_msgs/fill_image.hpp

• Image encodings:

https://github.com/ros2/common_interfaces/blob/master/sensor_msgs/include/sensor_msgs/image_encodings.hpp

Point cloud 2 iterator:

https://github.com/ros2/common_interfaces/blob/master/sensor_msgs/include/sensor_msgs/point_cloud2_iterator.hpp

Point cloud conversoin:

https://github.com/ros2/common_interfaces/blob/master/sensor_msgs/include/sensor_msgs/point_cloud_conversion.hpp

Point field conversoin:

https://github.com/ros2/common_interfaces/blob/master/sensor_msgs/include/sensor_msgs/point_field_conversion.hpp

shape msgs

Msg

- https://github.com/ros2/common interfaces/blob/master/shape msgs/msg/Mesh.msg
- https://github.com/ros2/common_interfaces/blob/master/shape_msgs/msg/MeshTriangle
 .msq
- https://github.com/ros2/common_interfaces/blob/master/shape_msgs/msg/Plane.msg
- https://github.com/ros2/common_interfaces/blob/master/shape_msgs/msg/SolidPrimitive
 _msg

std msgs

Msg

- https://github.com/ros2/common interfaces/blob/master/std msgs/msg/Bool.msg
- https://github.com/ros2/common interfaces/blob/master/std msgs/msg/Byte.msg
- https://github.com/ros2/common_interfaces/blob/master/std_msgs/msg/ByteMultiArray.m
 sq
- https://github.com/ros2/common_interfaces/blob/master/std_msgs/msg/Char.msg
- https://github.com/ros2/common interfaces/blob/master/std msgs/msg/ColorRGBA.msg
- https://github.com/ros2/common interfaces/blob/master/std msgs/msg/Empty.msg
- https://github.com/ros2/common interfaces/blob/master/std msgs/msg/Float32.msg
- https://github.com/ros2/common_interfaces/blob/master/std_msgs/msg/Float32MultiArra
 v.msq
- https://github.com/ros2/common_interfaces/blob/master/std_msgs/msg/Float64.msg
- https://github.com/ros2/common_interfaces/blob/master/std_msgs/msg/Float64MultiArra y.msg
- https://github.com/ros2/common_interfaces/blob/master/std_msqs/msg/Header.msg
- https://github.com/ros2/common_interfaces/blob/master/std_msgs/msg/Int16.msg

- https://github.com/ros2/common_interfaces/blob/master/std_msgs/msg/Int16MultiArray.
 msg
- https://github.com/ros2/common_interfaces/blob/master/std_msgs/msg/Int32.msg
- https://github.com/ros2/common_interfaces/blob/master/std_msgs/msg/Int32MultiArray.
 msg
- https://github.com/ros2/common_interfaces/blob/master/std_msgs/msg/Int64.msg
- https://github.com/ros2/common_interfaces/blob/master/std_msgs/msg/Int64MultiArray.
 msg
- https://github.com/ros2/common interfaces/blob/master/std msgs/msg/Int8.msg
- https://github.com/ros2/common_interfaces/blob/master/std_msgs/msg/Int8MultiArray.m
 sq
- https://github.com/ros2/common_interfaces/blob/master/std_msgs/msg/MultiArrayDimen_sion.msg
- https://github.com/ros2/common_interfaces/blob/master/std_msgs/msg/MultiArrayLayout .msg
- https://github.com/ros2/common interfaces/blob/master/std msgs/msg/String.msg
- https://github.com/ros2/common_interfaces/blob/master/std_msgs/msg/UInt16.msg
- https://github.com/ros2/common_interfaces/blob/master/std_msgs/msg/UInt16MultiArray

 .msg
- https://github.com/ros2/common interfaces/blob/master/std msqs/msq/UInt32.msq
- https://github.com/ros2/common_interfaces/blob/master/std_msgs/msg/UInt32MultiArray
 .msg
- https://github.com/ros2/common interfaces/blob/master/std msqs/msq/UInt64.msq
- https://github.com/ros2/common_interfaces/blob/master/std_msgs/msg/UInt64MultiArray

 .msg
- https://github.com/ros2/common_interfaces/blob/master/std_msgs/msg/UInt8.msg
- https://github.com/ros2/common_interfaces/blob/master/std_msgs/msg/UInt8MultiArray.
 msg

std srvs

Srv

- https://github.com/ros2/common interfaces/blob/master/std srvs/srv/Empty.srv
- https://github.com/ros2/common interfaces/blob/master/std srvs/srv/SetBool.srv
- https://github.com/ros2/common interfaces/blob/master/std srvs/srv/Trigger.srv

stereo msgs

Msg

https://github.com/ros2/common_interfaces/blob/master/stereo_msgs/msg/DisparityImage.msg
 e.msg

trajectory_msgs

Msg

- https://github.com/ros2/common_interfaces/blob/master/trajectory_msgs/msg/JointTrajectory_msg/JointTraje
- https://github.com/ros2/common_interfaces/blob/master/trajectory_msgs/msg/JointTrajectoryPoint.msg
- https://github.com/ros2/common_interfaces/blob/master/trajectory_msgs/msg/MultiDOFJ
 ointTrajectory.msg
- https://github.com/ros2/common_interfaces/blob/master/trajectory_msgs/msg/MultiDOFJ
 ointTrajectoryPoint.msg

visualization msgs

Msg

- https://github.com/ros2/common_interfaces/blob/master/visualization_msgs/msg/Image
 Marker.msg
- https://github.com/ros2/common_interfaces/blob/master/visualization_msgs/msg/InteractiveMarker.msg
- https://github.com/ros2/common_interfaces/blob/master/visualization_msgs/msg/InteractiveMarkerControl.msg
- https://github.com/ros2/common_interfaces/blob/master/visualization_msgs/msg/InteractiveMarkerFeedback.msg
- https://github.com/ros2/common_interfaces/blob/master/visualization_msgs/msg/InteractiveMarkerInit.msg
- https://github.com/ros2/common_interfaces/blob/master/visualization_msgs/msg/InteractiveMarkerPose.msg
- https://github.com/ros2/common_interfaces/blob/master/visualization_msgs/msg/InteractiveMarkerUpdate.msg
- https://github.com/ros2/common_interfaces/blob/master/visualization_msgs/msg/Marker.
 msq
- https://github.com/ros2/common_interfaces/blob/master/visualization_msgs/msg/Marker
 Array.msg

Srv

 https://github.com/ros2/common_interfaces/blob/master/visualization_msgs/srv/GetInter activeMarkers.srv

example_interfaces

Services

https://github.com/ros2/example interfaces/blob/master/srv/AddTwoInts.srv

Actions

https://github.com/ros2/example interfaces/blob/master/action/Fibonacci.action

rcl interfaces

action_msgs

Msg

- https://github.com/ros2/rcl_interfaces/blob/master/action_msqs/msq/GoalInfo.msq
- https://github.com/ros2/rcl_interfaces/blob/master/action_msgs/msg/GoalStatus.msg
- https://github.com/ros2/rcl_interfaces/blob/master/action_msgs/msg/GoalStatusArray.ms
 g

Srv

https://github.com/ros2/rcl_interfaces/blob/master/action_msgs/srv/CancelGoal.srv

builtin_interfaces

Msg

- https://github.com/ros2/rcl_interfaces/blob/master/builtin_interfaces/msg/Duration.msg
- https://github.com/ros2/rcl_interfaces/blob/master/builtin_interfaces/msg/Time.msg

composition_interfaces

Srv

- https://github.com/ros2/rcl_interfaces/blob/master/composition_interfaces/srv/ListNodes.
 srv
- https://github.com/ros2/rcl_interfaces/blob/master/composition_interfaces/srv/LoadNode.
 srv
- https://github.com/ros2/rcl_interfaces/blob/master/composition_interfaces/srv/UnloadNode.srv

lifecycle msgs

Msg

- https://github.com/ros2/rcl_interfaces/blob/master/lifecycle_msgs/msg/State.msg
- https://github.com/ros2/rcl_interfaces/blob/master/lifecycle_msgs/msg/Transition.msg
- https://github.com/ros2/rcl_interfaces/blob/master/lifecycle_msgs/msg/TransitionDescription.msg
- https://github.com/ros2/rcl_interfaces/blob/master/lifecycle_msgs/msg/TransitionEvent.m
 sq

Srv

- https://github.com/ros2/rcl_interfaces/blob/master/lifecycle_msqs/srv/ChangeState.srv
- https://github.com/ros2/rcl_interfaces/blob/master/lifecycle_msgs/srv/GetAvailableStates.
 srv
- https://github.com/ros2/rcl_interfaces/blob/master/lifecycle_msgs/srv/GetAvailableTransit ions.srv
- https://github.com/ros2/rcl_interfaces/blob/master/lifecycle_msqs/srv/GetState.srv

rcl interfaces

Msg

- https://github.com/ros2/rcl_interfaces/blob/master/rcl_interfaces/msg/FloatingPointRange
 .msq
- https://github.com/ros2/rcl_interfaces/blob/master/rcl_interfaces/msg/IntegerRange.msg
- https://github.com/ros2/rcl_interfaces/blob/master/rcl_interfaces/msg/IntraProcessMessage.msg
- https://github.com/ros2/rcl_interfaces/blob/master/rcl_interfaces/msg/ListParametersResult.msg
- https://github.com/ros2/rcl_interfaces/blob/master/rcl_interfaces/msg/Log.msg
- https://github.com/ros2/rcl_interfaces/blob/master/rcl_interfaces/msg/Parameter.msg
- https://github.com/ros2/rcl_interfaces/blob/master/rcl_interfaces/msg/ParameterDescript_or.msg
- https://github.com/ros2/rcl_interfaces/blob/master/rcl_interfaces/msg/ParameterEvent.m sg
- https://github.com/ros2/rcl_interfaces/blob/master/rcl_interfaces/msg/ParameterEventDescriptors.msg
- https://github.com/ros2/rcl_interfaces/blob/master/rcl_interfaces/msg/ParameterType.ms
 q
- https://github.com/ros2/rcl_interfaces/blob/master/rcl_interfaces/msg/ParameterValue.m
 sq
- https://github.com/ros2/rcl_interfaces/blob/master/rcl_interfaces/msg/SetParametersResult.msg

Srv

- https://github.com/ros2/rcl_interfaces/blob/master/rcl_interfaces/srv/DescribeParameters
 https://github.com/ros2/rcl_interfaces/blob/master/rcl_interfaces/srv/DescribeParameters
 https://github.com/ros2/rcl_interfaces/blob/master/rcl_interfaces/srv/DescribeParameters
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- https://github.com/ros2/rcl_interfaces/blob/master/rcl_interfaces/srv/GetParameterTypes.srv
- https://github.com/ros2/rcl interfaces/blob/master/rcl interfaces/srv/GetParameters.srv
- https://github.com/ros2/rcl interfaces/blob/master/rcl interfaces/srv/ListParameters.srv
- https://github.com/ros2/rcl_interfaces/blob/master/rcl_interfaces/srv/SetParameters.srv
- https://github.com/ros2/rcl_interfaces/blob/master/rcl_interfaces/srv/SetParametersAtomically.srv

rosgraph_msgs

Msg

• https://github.com/ros2/rcl_interfaces/blob/master/rosgraph_msgs/msg/Clock.msg

test_msgs

N/A

unique_identifier_msgs

Just one message to review

Messages

https://github.com/ros2/unique_identifier_msgs/blob/master/msg/UUID.msg

navigation msgs

map msgs

Messages

- https://github.com/ros-planning/navigation_msgs/blob/jade-devel/map_msgs/msg/Occup-ancyGridUpdate.msg
- https://github.com/ros-planning/navigation_msgs/blob/jade-devel/map_msgs/msg/PointC
 loud2Update.msg
- https://github.com/ros-planning/navigation_msgs/blob/jade-devel/map_msgs/msg/Project_edMap.msg
- https://github.com/ros-planning/navigation_msgs/blob/jade-devel/map_msgs/msg/Project_edMapInfo.msg

Services

- https://github.com/ros-planning/navigation_msgs/blob/jade-devel/map_msgs/srv/GetMap
 ROI.srv
- https://github.com/ros-planning/navigation_msgs/blob/jade-devel/map_msgs/srv/GetPoin tMap.srv
- https://github.com/ros-planning/navigation_msgs/blob/jade-devel/map_msgs/srv/GetPoin_ttmapROI.srv
- https://github.com/ros-planning/navigation_msgs/blob/jade-devel/map_msgs/srv/ProjectedmapsInfo.srv
- https://github.com/ros-planning/navigation_msgs/blob/jade-devel/map_msgs/srv/SaveMa
 https://github.com/ros-planning/navigation_msgs/blob/jade-devel/map_msgs/srv/SaveMa
 https://github.com/ros-planning/navigation_msgs/blob/jade-devel/map_msgs/srv/SaveMa
 https://github.com/ros-planning/navigation_msgs/srv/SaveMa
 https://github.com/ros-planning/navigation_msgs/srv/SaveMa
 https://github.com/ros-planning/navigation_msgs/srv/saveMa

 https://github.com/ros-planning/navigation_msg
- https://github.com/ros-planning/navigation_msgs/blob/jade-devel/map_msgs/srv/SetMap_Projections.srv

move base actions

• https://github.com/ros-planning/navigation_msgs/blob/jade-devel/move_base_msgs/actio n/MoveBase.action