ackermann_nav ROS Package

global_map_param

global_map

goal
> GoalMsg <

float64 goal_x
float64 goal_y
float64 goal_head
float64[] obs_x
float64[] obs_y

obstacles_new
> ObjectStateMsg <

float64[] obs_x
float64[] obs_y

obstacles_all_known
> ObjectStateMsg <

float64[] obs_x
float64[] obs_y

reading_lidar
> ObjectMsg <

float64[] head
float64[] dist

driver_lidar

global_plan_param

global_plan

obstacle_locations_param

obstacles_local
> ObjectStateMsg <

float64[] obs_x
float64[] obs_y

obstacle_locations

reading_stereocam
> ObjectMsg <

float64[] head
float64[] dist

driver_stereocam

ackermann_teleop_param

checkpoints
> CheckpointMsg <

float64[] ckpt_x
float64[] ckpt_y

local_plan

state_vehicle
> StateMsg <

float64 vel_k
float64 head_k
float64 x_k
float64 y_k

curr_position
> PositionMsg <

float64 x_k
float64 y_k

state_imu
> StateMsg <

float64 vel_k
float64 head_k
float64 x_k
float64 y_k

driver_imu

ackermann_teleop

control_teleop
> ControlMsg <

float64 accel_k_in
float64 head_k_in

local_plan_param

control_general
> ControlMsg <

float64 accel_k_in
float64 head_k_in

num_a, num_h, a_min, a_max, h_max, v_min, v_max

current_state

state_odom
> StateMsg <

float64 vel_k
float64 head_k
float64 x_k
float64 y_k

state_gps
> StateMsg <

float64 vel_k
float64 head_k
float64 x_k
float64 y_k

driver_gps

Note: ackermann_controller should only
subscribe to one topic at a time i.e. either
control_teleop or control_general

ackermann_controller

vehicle_length, vehicle_width,
control_scheme

ackermann_odom

vehicle_length, vehicle_width, wheel_radius

current_state_param

control_model
> TransmissionMsg <

float64 steer_front_l
float64 steer_front_r
float64 vel_rear

vehicle_param

ackermann_driver

node

driver node between
hardware/simulation interface

topic name
> message type <

type variable_name
type2 variable2_name

parameters file

specific parameters to pass

Included in ackermann_nav package