

3D Transformations

hom_mat3d_identity
hom_mat3d_translate
hom_mat3d_translate_local
hom_mat3d_rotate
hom_mat3d_rotate_local
hom_mat3d_compose
hom_mat3d_invert
affine_trans_point_3d

create_pose
hom_mat3d_to_pose
pose_to_hom_mat3d
convert_pose_type
set_origin_pose
pose_invert
pose_compose

write_pose
read_pose

vector_to_pose

Object Model 3D

gen_empty_object_model_3d
gen_object_model_3d_from_points
gen_box_object_model_3d
gen_sphere_object_model_3d
gen_cylinder_object_model_3d
gen_plane_object_model_3d

read_object_model_3d

set_object_model_3d_attrib
set_object_model_3d_attrib_mod
get_object_model_3d_params

rigid_trans_object_model_3d
affine_trans_object_model_3d
projective_trans_object_model_3d

xyz_to_object_model_3d
triangulate_object_model_3d
surface_normals_object_model_3d

prepare_object_model_3d
sample_object_model_3d

fit_primitives_object_model_3d
segment_object_model_3d

area_object_model_3d
distance_object_model_3d

max_diameter_object_model_3d
smallest_bounding_box_object_model_3d
smallest_sphere_object_model_3d
intersect_plane_object_model_3d

select_points_object_model_3d
select_object_model_3d

connection_object_model_3d
union_object_model_3d

visualize_object_model_3d
disp_3d_coord_system

Camera Calibration

gen_cam_par_area_scan_division

create_calib_data
set_calib_data_cam_param
set_calib_data_calib_object
get_calib_data

find_calib_object
set_calib_data_observ_points
get_calib_data_observ_contours
get_calib_data_observ_points

calibrate_cameras
get_calib_data

write_cam_par

project_3d_point
image_to_world_plane
image_points_to_world_plane

gen_image_to_world_plane_map
map_image

Stereo Reconstruction: Calibration

get_calib_data
create_camera_setup_model
set_camera_setup_param
get_camera_setup_param

write_camera_setup_model
read_camera_setup_model

intersect_lines_of_sight

Stereo Reconstruction: Binocular

binocular_disparity
binocular_distance
binocular_disparity_mg
binocular_distance_mg
binocular_disparity_ms
binocular_distance_ms

gen_binocular_rectification_map
map_image

disparity_image_to_xyz
xyz_to_object_model_3d

Stereo Reconstruction: Multi-View

create_camera_setup_model

create_stereo_model
set_stereo_model_param

reconstruct_surface_stereo
reconstruct_points_stereo

Shape-Based Matching

prepare_object_model_3d

create_shape_model_3d

find_shape_model_3d

project_shape_model_3d

write_shape_model_3d
read_shape_model_3d

Surface-Based Matching

create_surface_model
set_surface_model_param

find_surface_model
refine_surface_model_pose

debug_find_surface_model
get_surface_matching_result

write_surface_model
read_surface_model