UF_MOTION_3D_contact_force_e (view source)

Defined in: uf_motion_types.h

Also known as:

- UF_MOTION_3D_contact_force_t

Data Members

UF_MOTION_3D_CONTACT_IMPACT = 0

UF_MOTION_3D_CONTACT_POISSON

UF_MOTION_3D_contact_friction_e (view source)

Defined in: uf_motion_types.h

Also known as:

- UF_MOTION_3D_contact_friction_t

Data Members

UF_MOTION_3D_CONTACT_NO_FRICTION = 0
UF_MOTION_3D_CONTACT_DYNAMIC_FRICTION_ONLY No longer used(PR#4987406)

UF_MOTION_3D_CONTACT_ALL_FRICTION

UF_MOTION_3d_contact_method_e (view source)

Defined in: uf_motion_types.h

Also known as:

- UF_MOTION_3d_contact_method_t

Data Members

UF_MOTION_faceted_contact = 0
For Faceted Contact Algorithm

UF_MOTION_precise_contact
For Precise Contact Algorithm

UF_MOTION_unknown_contact_method
For Undefined type

UF_MOTION_angular_units_type_e (view source)

Defined in: uf_motion_types.h

Also known as:
- UF_MOTION_angular_units_type_t

Overview
UF_MOTION_angular_units_type_s defines the possible values of angular input values. This includes drives for joints and other motion inputs.

Data Members

UF_MOTION_degree_units
motion inputs are assumed to be in degrees

UF_MOTION_radian_units
motion inputs are assumed to be in radians

UF_MOTION_anl_geometry_format_e (view source)

Defined in: uf_motion_types.h

Also known as:
- UF_MOTION_anl_geometry_format_t

Data Members

UF_MOTION_stl_format = 0
For exporting the Adams data in STL Format

UF_MOTION_parasolid_format
For exporting the Adams data in Parasolid Format

UF_MOTION_no_format
For exporting the Adams data in No Format

UF_MOTION_unknown_geometry_format
Used in case of raising ERROR

UF_MOTION_disp_angle_e (view source)

Defined in: uf_motion_types.h

Also known as:

- UF_MOTION_disp_angle_t

Data Members

UF_MOTION_euler_one = 0
This is the first Euler angle displacement in the body 3-1-3 system. It is the rotation about the z axis of the original coordinate system.

UF_MOTION_euler_two
This is the second Euler angle displacement in the body 3-1-3 system. It is the rotation about the NEW x axis that exists after the first Euler angle rotation.

UF_MOTION_euler_three
This is the third Euler angle displacement in the body 3-1-3 system. It is the rotation about the NEW z axis that exists after the second Euler angle rotation.

UF_MOTION_func_component_type_t (view source)

Defined in: uf_motion_types.h

Overview

Motion result component type for derived function.

Data Members

UF_MOTION_func_linear_mag = 0
Linear magnitude component of result type for derived function.

UF_MOTION_func_x_comp
X component of result type for derived function.

UF_MOTION_func_y_comp
Y component of result type for derived function.

UF_MOTION_func_z_comp
Z component of result type for derived function.

UF_MOTION_func_angular_mag
Angular magnitude component of result type for derived function. This component is not allowed for UF_MOTION_func_displacement.

UF_MOTION_func_euler1_comp
First Euler angle component of result type for derived function. It is the rotation

about the z axis of the original coordinate system.

UF_MOTION_func_euler2_comp
Second Euler angle component of result type for derived function. It is the rotation about the NEW x axis that exists after the first Euler angle rotation.

UF_MOTION_func_euler3_comp
Third Euler angle component of result type for derived function. It is the rotation about the NEW z axis that exists after the second Euler angle rotation.

UF_MOTION_func_ref_frame_type_t (view source)

Defined in: uf_motion_types.h

Data Members

UF_MOTION_func_absolute_frame = 0
Derived function in absolute coordinate system.

UF_MOTION_func_relative_frame
Derived function is relative to j-marker of referenced motion object.

UF_MOTION_func_result_type_t (view source)

Defined in: uf_motion_types.h

Overview
Motion result type for a derived function.

Data Members

UF_MOTION_func_displacement = 0
Displacement result for derived function.

UF_MOTION_func_velocity
Velocity result for derived function.

UF_MOTION_func_acceleration
Acceleration result for derived function.

UF_MOTION_func_force
Force result for derived function.

UF_MOTION_joint_coupler_type_e (view source)

Defined in: uf_motion_types.h

Also known as:

- UF_MOTION_joint_coupler_type_t

Data Members

UF_MOTION_unknown_coupler = 0
This type is used to signify that the coupler type is not yet set.

UF_MOTION_rack_and_pinion_coupler
This coupler is used to couple a revolute and slider whose z axes will remain nearly prependicular throughout the motion.

UF_MOTION_gear_coupler
This coupler is used to couple two revolute joints.

UF_MOTION_cable_coupler
This coupler is used to couple two slider joints.

UF_MOTION_joint_motion_input_type_e (view source)

Defined in: uf_motion_types.h

Also known as:

- UF_MOTION_joint_motion_input_type_t

Data Members

UF_MOTION_unknown_input = 0
This type is used to signify that the motion input type is unset.

UF_MOTION_function_input
This type is a user-defined function that describes the position of the joint as a function of other measurable values.

UF_MOTION_constant_input
This type is a motion input of constant displacement, velocity, and/or acceleration.

UF_MOTION_harmonic_input
This type is a harmonic oscillating motion with specified amplitude, frequency, phase angle, and offset displacement.

UF_MOTION_articulation_input
This type is strictly for articulation and the motion input is defined incrmentally using the articulation functions.

UF_MOTION_joint_type_e (view source)

Defined in: uf_motion_types.h

Also known as:
- UF_MOTION_joint_type_t

Data Members

UF_MOTION_unknown_joint = 0
This type is used to signify that the type has not been set yet.

UF_MOTION_revolute_joint
This joint type is a single axis rotation. This joint removes 5 degrees of freedom. The origins of csys_1 and csys_2 are identical and the z axes of csys_1 and csys_2 are colinear and codirected.

UF_MOTION_slider_joint
This joint type is a single translation. This joint removes 5 degrees of freedom. The orientations of csys_1 and csys_2 are identical and the z axes are colinear and codirected.

UF_MOTION_cylinder_joint
This joint type is a single rotation and a single translation. This joint removes 4 degrees of freedom. The z axes of csys_1 and csys_2 are colinear and codirected.

UF_MOTION_screw_joint
This joint type is used to couple the rotation and translation of a cylindrical joint to remove one degree of freedom. It should be created on the same pair of links as the cylindrical joint. If the screw joint needs to be driven, it may be coupled with a revolute joint and a slider joint instead.

UF_MOTION_universal_joint
This joint type allows two rotations. It removes 4 degrees of freedom. The origins of csys_1 and csys_2 are identical. The rotations about the x axis of csys_2 are equal and opposite to the rotations about the x axis of csys_1.

UF_MOTION_spherical_joint
This joint type allows three rotations. It removes 3 degrees of freedom. The

origins of csys_1 and csys_2 are identical.

UF_MOTION_planar_joint
This joint type allows a single rotation and two translations. It removes three degrees of freedom. The z axes of csys_1 and csys_2 are parallel and codirected. The origins of csys_1 and csys_2 are in a common x-y plane.

UF_MOTION_fixed_joint
This Joint fixes a link or weld two links, It removes 6 degrees of freedom

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UF_MOTION_marker_type_e (view source)

Defined in: uf_motion_types.h

Also known as:
- UF_MOTION_marker_type_t

Data Members

UF_MOTION_undefined_marker = 0

UF_MOTION_inertia_marker
This type defines the center of inertia for a link. It will be automatically created for a link.

UF_MOTION_cofm_marker
This type defines the center of mass for a link. It will be automatically created for a link.

UF_MOTION_user_defined_marker
This is a user created marker. This marker can be attached to any mechanism object.

UF_MOTION_measurement_type_e (view source)

Defined in: uf_motion_types.h

Also known as:
- UF_MOTION_measurement_type_t

Data Members

UF_MOTION_unknown_measurement = 0
This type is used to signify that the measurement type is not set.

UF_MOTION_distance_measurement
This type is for measuring distances. If this type is used with solid bodies, the minimum distance between the body is calculated.

UF_MOTION_angle_measurement
This type is for measuring angles between lines or linear edges.

UF_MOTION_PV_export_type_e (view source)

Defined in: uf_motion_types.h

Also known as:
- UF_MOTION_PV_export_type_t

Data Members

UF_MOTION_PV_EXPORT_VFM = 0
This type is used to create vfm file only

UF_MOTION_PV_EXPORT_VFM_AND_JT
This type is used to create vfm and jt file

UF_MOTION_reference_frame_e (view source)

Defined in: uf_motion_types.h

Also known as:
- UF_MOTION_reference_frame_t

Data Members

UF_MOTION_absolute = 0
This type is used for objects and operations in the absolute coordinate system. This is the ground coordinate system and does not move with the mechanism.

UF_MOTION_first_link
This type is used for objects and operations in the coordinate system of the first link. This reference frame moves with the link.

UF_MOTION_second_link
This type is used for objects and operations in the coordinate system of the second link. This reference frame moves with the link.

UF_MOTION_solver_e (view source)

Defined in: uf_motion_types.h

Also known as:
- UF_MOTION_solver_t

Data Members

UF_MOTION_unknown_solver = 0
This type is used to signify that no solver has been set yet.

UF_MOTION_kinematic_solver
This is the solver for kinematic analysis.

UF_MOTION_static_dynamic_solver
This is the sovler for dynamic (inertial) and static analyses.

UF_MOTION_spring_damper_type_e (view source)

Defined in: uf_motion_types.h

Also known as:
- UF_MOTION_spring_damper_type_t

Overview
Enum definition for use with both springs and dampers.

Data Members

UF_MOTION_unknown_spring_damper = 0
This type is used to signify that the spring-damper type is not set yet.

UF_MOTION_revolute_spring_damper
This type of spring-damper is rotational and must be applied to a revolute joint.

UF_MOTION_slider_spring_damper
This type of spring-damper is translational and must be

applied to a slider joint.

UF_MOTION_link_spring_damper
This type of spring-damper is translational and can be applied generally to two independent links.

UF_MOTION_vector_component_e (view source)

Defined in: uf_motion_types.h

Also known as:
- UF_MOTION_vector_component_t

Data Members

UF_MOTION_magnitude = 0
This value represents the full magnitude of the vector in question. It is not a valid entry for functions that need to set the direction of the vector.

UF_MOTION_x_component
This value represents the x component of the vector.

UF_MOTION_y_component
This value represents the y component of the vector.

UF_MOTION_z_component
This value represents the z component of the vector.

UF_MOTION_vector_type_e (view source)

Defined in: uf_motion_types.h

Also known as:
- UF_MOTION_vector_type_t

Overview
Enum definition to designate vector force or vector torque.

Data Members

UF_MOTION_vector_force = 0

UF_MOTION_vector_torque

UF_MOTN_motion_type_e (view source)

Defined in: uf_motion_types.h

Also known as:

- UF_MOTION_motion_type_t

Data Members

UF_MOTION_translation = 0
The motion described by this type is a pure translation. It could be a translation of a joint or link or a component of the translation along an axis of a specific coordinate system.

UF_MOTION_rotation
The motion described by this type is a pure rotation. It could be a rotation of a joint or link or a component of the rotation about an axis of a specific coordinate system.