UF_GEXP_ask_angle_parms (view source)

Defined in: uf_gexp.h

Overview

Queries the given angle geometric expression feature and returns the referenced objects, transforms and qualifiers.

See Also

UF_GEXP_edit_angle
UF_GEXP_create_angle
UF_GEXP_qualifier_t

Environment

Internal and External

History

This function was originally released in V15.0.

Required License(s)

gateway

```
int UF_GEXP_ask_angle_parms
(
    tag_t feature_tag,
    tag_t * object1,
    UF_GEXP_qualifier_t * qualifier1,
    tag_t * xform1,
    tag_t * object2,
    UF_GEXP_qualifier_t * qualifier2,
    tag_t * xform2
)
```

tag_t	**feature_tag**	Input	Tag of angle expression feature to query.
tag_t *	**object1**	Output	Tag of referenced object 1 the angle was created from
UF_GEXP_qualifier_t *	**qualifier1**	Output	Qualifier for object1, only applicable to lines and edges.
tag_t *	**xform1**	Output	Tag of transformation for first object; if the object is in the same part the feature was created in, this would be NULL_TAG.
tag_t *	**object2**	Output	Tag of referenced object 2 the angle was created from.
UF_GEXP_qualifier_t *	**qualifier2**	Output	Qualifier for object2, only applicable to lines and edges.
tag_t *	**xform2**	Output	Tag of transformation for second object. This tag is NULL_TAG if the object is in the same part in which the feature was created.

UF_GEXP_ask_distance_parms (view source)

Defined in: uf_gexp.h

Overview
Queries the given distance expression feature and returns its object references and transforms

See Also
UF_GEXP_create_distance
UF_GEXP_edit_distance

Environment
Internal and External

History
This function was originally released in V15.0.

Required License(s)
gateway

```
int UF_GEXP_ask_distance_parms
(
    tag_t feature_tag,
    tag_t * ref1,
    tag_t * xform1,
    tag_t * ref2,
    tag_t * xform2
)
```

tag_t	**feature_tag**	Input	Tag of distance expression feature to query.
tag_t *	**ref1**	Output	Tag of first referenced object
tag_t *	**xform1**	Output	Tag of transformation for first object. The transformation is NULL_TAG for objects in the same part in which the feature was created.
tag_t *	**ref2**	Output	Tag of second referenced object
tag_t *	**xform2**	Output	Tag of transformation for second object. The transformation is NULL_TAG for objects in the same part in which the feature was created.

UF_GEXP_ask_length_parms (view source)

Defined in: uf_gexp.h

Overview
Queries the given length expression feature and returns its referenced object and transform.

See Also
UF_GEXP_create_length
UF_GEXP_edit_length

Environment
Internal and External

History
This function was originally released in V15.0.

Required License(s)
gateway

```
int UF_GEXP_ask_length_parms
(
    tag_t feature_tag,
    tag_t * ref_object,
    tag_t * xform
)
```

tag_t	**feature_tag**	Input	Tag of length expression feature to edit.
tag_t *	**ref_object**	Output	Tag of referenced object
tag_t *	**xform**	Output	Tag of transformation for the referenced object. The transformation is NULL_TAG for an object in the same part in which the feature was created.

UF_GEXP_create_angle (view source)

Defined in: uf_gexp.h

Overview
Creates an angle geometric expression feature. An angle between from_object and to_object is computed and stored in an expression. In the event that from_object is a line or a solid edge, qualifier1 is used to determine which endpoint to use for computation. The same is true for qualifier2 and to_object. If object1_xform is not NULL_TAG, then this is used to get the correct part occurrence tag for from_object. The same is true for object2_xform and to_object. The feature and the expression are created in the work part. The measured angle is in degrees.

NOTE The output expression's value may not be edited as you would normal expressions. It may only be used as a reference, and only of features created after the geometric expression feature.

See Also
UF_GEXP_edit_angle
UF_GEXP_ask_angle_parms
Refer to the example

Environment
Internal and External

History

This function was originally released in V15.0.

Required License(s)

gateway

```
int UF_GEXP_create_angle
(
    tag_t from_object,
    UF_GEXP_qualifier_t qualifier1,
    tag_t object1_xform,
    tag_t to_object,
    UF_GEXP_qualifier_t qualifier2,
    tag_t object2_xform,
    tag_t * feature_tag,
    tag_t * exp_tag
)
```

tag_t	**from_object**	Input	Tag of object to create the angle from. Valid object types are: UF_line_type, UF_datum_plane_type, UF_datum_axis_type, UF_solid_type. A solid edge should be linear and a solid face should be planar. Occurrence tags are not allowed. Use the prototype tag instead.
UF_GEXP_qualifier_t	**qualifier1**	Input	Qualifier for object1, only applicable to lines and edges.
tag_t	**object1_xform**	Input	Tag of transformation for first object. The tag is NULL_TAG if the object is in the same part in which the feature is created.
tag_t	**to_object**	Input	Tag of object to create angle from. Valid object types are: UF_line_type, UF_datum_plane_type, UF_datum_axis_type, UF_solid_type. A solid edge should be linear and a solid face should be planar. Occurrence tags are not allowed. Use the prototype tag instead.
UF_GEXP_qualifier_t	**qualifier2**	Input	Qualifier for object2,only applicable to lines and edges.
tag_t	**object2_xform**	Input	Tag of transformation for second object. The tag is NULL_TAG if the object is in the same part in which the feature is created.
tag_t *	**feature_tag**	Output	Tag of the created feature
tag_t *	**exp_tag**	Output	Tag of the created expression

UF_GEXP_create_distance (view source)

Defined in: uf_gexp.h

Overview

Create a distance geometric expression feature.
This function computes and stores the minimum distance between from_object and to_object in an expression. If object1_xform is not NULL_TAG, then this transform is used to compute the transformation for from_object. If object2_xform is not NULL_TAG, then this transform is used to compute the transformation for to_object. The created feature and the expression are stored in the current work part. The distance is in terms of the units of the work part, and is converted during ug_part_convert.

NOTE: The output expression's value may not be edited as you would normal expressions. It may only be used as a reference, and only of features created after the geometric expression feature.

See Also

UF_GEXP_edit_distance
UF_GEXP_ask_distance_parms
Refer to the example

Environment

Internal and External

History

This function was originally released in V15.0.

Required License(s)

gateway

```
int UF_GEXP_create_distance
(
    tag_t from_object,
    tag_t object1_xform,
    tag_t to_object,
    tag_t object2_xform,
    tag_t * feature_tag,
    tag_t * exp_tag
)
```

tag_t	**from_object**	Input	Tag of object to create the distance from. Valid object types are: UF_point_type, UF_line_type, UF_circle_type, UF_spline_type, UF_conic_type, UF_solid_type, and UF_datum_plane_type. Occurrence tags are not allowed. Use the prototype tag instead.
tag_t	**object1_xform**	Input	Tag of transformation for first object. This tag is NULL_TAG if the object is in the same part in which the feature is created.

tag_t	**to_object**	Input	Tag of object to create distance to. Valid object types are: UF_point_type, UF_line_type, UF_circle_type, UF_spline_type, UF_conic_type, UF_solid_type, and UF_datum_plane_type. Occurrence tags are not allowed. Use the prototype tag instead.
tag_t	**object2_xform**	Input	Tag of transformation for second object. This tag is NULL_TAG if the object is in the same part in which the feature is created.
tag_t *	**feature_tag**	Output	Tag of the created feature
tag_t *	**exp_tag**	Output	Tag of the created expression

UF_GEXP_create_length (view source)

Defined in: uf_gexp.h

Overview

Creates a length expression feature. This function computes and stores the length of object in an expression. If object_xform is not NULL_TAG, then this transform is used to compute any scale factors and units conversion for the object's length.
The resulting feature and expression are created in the work part. The length is in terms of the units of the work part and is converted during ug_part_convert.

NOTE The output expression's value may not be edited as you would normal expressions. It may only be used as a reference, and only of features created after the geometric expression feature.

See Also

UF_GEXP_edit_length
UF_GEXP_ask_length_parms
Refer to the example

Environment

Internal and External

History

This function was originally released in V15.0.

Required License(s)

gateway

```
int UF_GEXP_create_length
(
    tag_t object,
    tag_t xform,
```

```
    tag_t * feature_tag,
    tag_t * exp_tag
)
```

tag_t	**object**	Input	Tag of object for which to create the length. Valid object types are: UF_line_type UF_circle_type UF_spline_type UF_conic_type UF_solid_type Occurrence tags are not allowed. Use the prototype tag instead.
tag_t	**xform**	Input	Tag of transformation for the object. The tag is NULL_TAG if the object is in the same part in which the feature is created.
tag_t *	**feature_tag**	Output	Tag of the created feature
tag_t *	**exp_tag**	Output	Tag of the created expression

UF_GEXP_edit_angle (view source)

Defined in: uf_gexp.h

Overview

Edits the angle expression feature by passing in new referenced objects, qualifiers, and transforms. The recomputed angle then propagates to the expression which updates all objects which reference its value. The calling routine must call UF_MODL_update() to have the edit take effect.

See Also

UF_GEXP_create_angle
UF_GEXP_ask_angle_parms
Refer to the example

Environment

Internal and External

History

This function was originally released in V15.0.

Required License(s)

gateway

```
int UF_GEXP_edit_angle
(
    tag_t feature_tag,
    tag_t new_from_object,
    UF_GEXP_qualifier_t qualifier1,
    tag_t new_xform1,
    tag_t new_to_object,
    UF_GEXP_qualifier_t qualifier2,
    tag_t new_xform2
```

)

tag_t	**feature_tag**	Input	Tag of angle expression feature to edit.
tag_t	**new_from_object**	Input	Tag of object to use for newly edited angle. Valid object types are: UF_line_type UF_datum_plane_type UF_datum_axis_type UF_solid_type Solid edge should be linear and solid face should be planar. Occurrence tags are not allowed. Use the prototype tag instead.
UF_GEXP_qualifier_t	**qualifier1**	Input	Qualifier for object1, only applicable to lines and edges.
tag_t	**new_xform1**	Input	Tag of transformation for first object. This is NULL_TAG if the object is in the same part in which the feature is created.
tag_t	**new_to_object**	Input	Tag of object to use for newly edited angle. Valid object types are: UF_line_type UF_datum_plane_type UF_datum_axis_type UF_solid_type Solid edge should be linear and solid face should be planar. Occurrence tags are not allowed. Use the prototype tag instead.
UF_GEXP_qualifier_t	**qualifier2**	Input	Qualifier for object2,only applicable to lines and edges.
tag_t	**new_xform2**	Input	Tag of transformation for second object. This is NULL_TAG if the object is in the same part in which the feature is created.

UF_GEXP_edit_distance (view source)

Defined in: uf_gexp.h

Overview

Edits the distance expression feature by passing in new referenced objects. The newly calculated distance is stored in the expression and all objects which reference the expression's value are then updated to reflect the new value. The calling routine must call UF_MODL_update() to have the edit take effect.

See Also

UF_GEXP_create_distance
UF_GEXP_ask_distance_parms
Refer to the example

Environment

Internal and External

History
This function was originally released in V15.0.

Required License(s)
gateway

int UF_GEXP_edit_distance
(
tag_t feature_tag,
tag_t new_from_object,
tag_t new_xform1,
tag_t new_to_object,
tag_t new_xform2
)

tag_t	**feature_tag**	Input	Tag of distance expression feature to edit.
tag_t	**new_from_object**	Input	Tag of object to use for newly edited distance. Occurrence tags are not allowed. Use the prototype tag instead.
tag_t	**new_xform1**	Input	Tag of transformation for first object. This tag is NULL_TAG if the object is in the same part in which the feature is created.
tag_t	**new_to_object**	Input	Tag of object to use for newly edited distance. Occurrence tags are not allowed. Use the prototype tag instead.
tag_t	**new_xform2**	Input	Tag of transformation for second object. This tag is NULL_TAG if the object is in the same part in which the feature is created.

UF_GEXP_edit_length (view source)

Defined in: uf_gexp.h

Overview
Edits the length expression feature by passing in a new referenced object and a new xform, if needed. The recomputed length propagates into the expression, and all objects which reference its value are updated to the correct value. The calling routine must call UF_MODL_update() to have the edit take effect.

See Also
UF_GEXP_create_length
UF_GEXP_ask_length_parms
Refer to the example

Environment

Internal and External

History

This function was originally released in V15.0.

Required License(s)

gateway

int UF_GEXP_edit_length
(
tag_t feature_tag,
tag_t new_object,
tag_t new_xform
)

tag_t	**feature_tag**	Input	Tag of length expression feature to edit.
tag_t	**new_object**	Input	Tag of object to use for newly edited length. Valid object types are: UF_line_type UF_circle_type UF_spline_type UF_conic_type UF_solid_type Occurrence tags are not allowed. Use the prototype tag instead.
tag_t	**new_xform**	Input	Tag of transformation for object. This tag is NULL_TAG if the object is in the same part in which the feature is created.