*Chapter 7.*
# Enumerations

Topic: Ignore

In C++, an enumeration (enumerated data type) defines a list of constant integer values, each with a unique identifier name. Enumerations are defined using the enum keyword. Refer to the *3D ACIS Online Help User's Guide* for a description of the fields in the reference template.

## blend_transition

Enumeration: Blending

Purpose: Defines the kind of transition blending is required to make when the blend runs off an underlying entity.

Filename: blnd/blend/kernbool/entent/bl_trans.hxx

Values:

| | |
|---|---|
| blend_unknown=0 | unknown blend |
| blend_runout=1 | run the blend out |
| blend_cap=2 | cap the blend |
| blend_rollon=3 | roll on over the entity |

## bl_convexity

Enumeration: Blending, SAT Save and Restore

Purpose: Defines the convexity of a blend.

Filename: blnd/blend/kernbool/entent/bl_cxty.hxx

Values:

| | |
|---|---|
| bl_convexity_unknown=0 | unknown convexity |
| bl_convex=1 | blend is convex |
| bl_concave=2 | blend is concave |

## bl_cvxty_ents

Enumeration: SAT Save and Restore, Blending

Purpose: Text specifies blending convexity.

Filename: blnd/blend/kernbool/blending/blnattri.cxx

| Values: | | |
|---|---|---|
| | bl_ed_undefined_cvxty=“undefined” | convexity is unknown |
| | bl_ed_convex=“convex” | blend is convex |
| | bl_ed_concave=“concave” | blend is concave |
| | bl_ed_convex_smooth=“convex_smooth” | blend is convex and smooth |
| | bl_ed_concave_smooth=“concave_smooth” | blend is concave and smooth |
| | bl_ed_smooth=“smooth” | blend is smooth |
| | bl_ed_convex_cusp=“convex_cusp” | blend is convex and cusp |
| | bl_ed_concave_cusp=“concave_cusp” | blend is concave and cusp |
| | bl_ed_cusp=“cusp” | blend is cusp |

# bl_ed_sense

Enumeration: Blending

Purpose: Defines the sense of the blend spring curve along the edge to help define where the blend goes.

Filename: blnd/blend/kernbool/entent/bl_sup_e.hxx

| Values: | | |
|---|---|---|
| | bl_forward=0 | The spring curve moves always forwards along the edge, possibly with momentary stationary points. |
| | bl_reversed=1 | The spring curve always goes backwards along the edge, possibly with momentary stationary points. |
| | bl_stationary=2 | The spring curve is actually a point on the edge and does not move at all along it. Note that a further field, edge_stat_cw, indicating the direction of the pivoting about the edge, MUST also be set in this case. |
| | bl_sense_unset=3 | Not yet set. Geometry construction MUST set it. |

# bl_how_ents

Enumeration: SAT Save and Restore, Blending

Purpose: Text specifies what type of blending is to be performed at ends.

Filename: blnd/blend/kernbool/blending/blnattri.cxx

| Values: | | |
|---|---|---|
| | bl_how_default=“default” | follow default behavior |
| | bl_how_cap=“cap” | cap or mitre regardless of edge convexity |
| | bl_how_roll_on=“roll_on” | roll-on regardless of edge convexity |
| | bl_error=“error” | used to prevent a blend from spreading too far |

# bl_v_property

Enumeration: Blending

Purpose: Specifies blend behavior at a vertex attached to one or more blended edges.

Filename: blnd/blend/kernbool/blending/vbl_enum.hxx

| Values: | | |
|---|---|---|
| | bl_v_unset=0 | vertex blend |
| | bl_v_bi_blend=1 | used internally to mark an interior vertex of a blend sequence for which more blend sheet faces will be made. |
| | bl_v_cusp=2 | notes that two blended edges meeting in a cusp at the vertex and zero, one or more unblended smooth edges meet in the vertex, for which a special vertex blend boundary must be made. |
| | bl_v_blend=3 | vertex blend. |
| | bl_v_cap=4 | means cap or mitre at a vertex joined to one or two blended edges (same as default behavior with no attribute on the vertex at the end of a blend sequence.) |
| | bl_v_roll_on=5 | means close off the open end using edge–face or edge–edge blends. |
| | bl_v_runout=6 | means close off the open end using a variable–radius blend. |

# rad_form_ents

Enumeration: SAT Save and Restore, Blending

Purpose: Text specifies the type of radius blending.

Filename: blnd/blend/sg_husk/vrbln/at_b_bl.cxx

| Values: | | |
|---|---|---|
| | RADIUS_UNSET="unknown" | radius is unset |
| | TWO_ENDS="two_ends" | radius at two ends |
| | FUNCTIONAL="functional" | radius is functional |
| | FIXED_WIDTH="fixed_width" | radius has fixed width |

# point_support_containment

Enumeration: Blending

Purpose: Indicates for variable radius blends where the blend is in relation to the entity on which the blend lies.

Filename: blnd/blend/kernbool/entent/bl_sup.hxx

| Values: | | |
|---|---|---|
| | point_unknown_support=0 | unknown |
| | point_inside_support=1 | blend is inside the entity |
| | point_boundary_support=2 | blend is on boundary of the entity |
| | point_outside_support=3 | blend is outside the entity |

# sec_form_ents

Enumeration: SAT Save and Restore, Blending

Purpose: Text specifies the form of section.

Filename: blnd/blend/sg_husk/vrbln/at_b_bl.cxx

| Values: | | |
|---|---|---|
| | XSECT_UNKNOWN="unknown" | cross section is unknown |
| | CIRCULAR="circular" | cross section is circular |
| | THUMBWEIGHTS="thumbweights" | cross section thumbweights |