Appendix B.
Syntax Summary

Topic: Ignore

This appendix provides a syntax summary of reference items defined in the Component Name. There is a separate section for each item type (Scheme extension, test harness command, etc.), and the items within each section are alphabetized. Just the syntax of each item is given; refer to the item's reference template for a complete description.

Functions

Topic: Ignore

```
outcome api_abh_chamfer_edges(const ENTITY_LIST& edgs, double r1,
   double r2 = –1, double r1_end = –1, double r2_end = –1, double
   R1 = 0, double R2 = 0, AcisOptions* ao = NULL)

outcome api_abh_edge_project(BODY* b, EDGE* e, logical sequence,
   double dist, logical left, SPAvector v, AcisOptions* ao =
   NULL)

outcome api_abh_imprint(BODY* int_wire, ENTITY_LIST& edge_list,
   AcisOptions* ao = NULL)

outcome api_abh_slice(BODY* tool, BODY* blank, BODY*& int_wire,
   AcisOptions* ao = NULL)

outcome api_abh_vblend(EDGE* in_ed, double r1, double r2,
   AcisOptions* ao = NULL)

outcome api_abh_vblend(ENTITY_LIST& in_eds, double r1, double r2,
   AcisOptions* ao = NULL)

outcome api_blend_edges_pos_rad(const ENTITY_LIST& eds, const int
   num_fixes, SPAposition fix_positions[], double fix_radii[],
   double* start_slope = NULL, double* end_slope = NULL,
   AcisOptions* ao = NULL)

outcome api_initialize_advanced_blending()
```

```
outcome api_make_radius_constant(double rad, var_radius*&
   rad_obj, AcisOptions* ao = NULL)

outcome api_make_radius_fixed_width(double width, var_radius*&
   rad_obj, AcisOptions* ao = NULL)

outcome api_make_radius_param_rads(int num_fixes, double*
   fix_params, double* fix_radii, var_radius*& rad_obj,
   AcisOptions* ao = NULL)

outcome api_make_radius_param_rads_tan(int num_fixes, double*
   fix_params, double* fix_radii, double* start_slope, double*
   end_slope, var_radius*& rad_obj, AcisOptions* ao = NULL)

outcome api_make_radius_pos_rads(CURVE* calibration_curve, int
   num_fixes, SPAposition* fix_positions, double* fix_radii,
   var_radius*& rad_obj, double* start_slope = NULL, double*
   end_slope = NULL, AcisOptions* ao = NULL)

outcome api_make_radius_pos_rads(EDGE* def_crv_edge, int
   num_fixes, SPAposition* fix_positions, double* fix_radii,
   var_radius*& rad_obj, double* start_slope = NULL, double*
   end_slope = NULL, AcisOptions* ao = NULL)

outcome api_make_radius_rnd_chamfer(double start_left_off, double
   end_left_off, double start_right_off, double end_right_off,
   var_radius*& rad_obj1, var_radius*& rad_obj2, AcisOptions* ao
   = NULL)

outcome api_make_radius_rot_ellipse(double maj_start, double
   maj_end, double min_start, double min_end, double ang_start,
   double ang_end, logical ref_face_left, var_radius*& rad_obj,
   AcisOptions* ao = NULL)

outcome api_make_radius_spline_rad(bs3_curve rad_spl,
   var_radius*& rad_obj, CURVE* calibration_curve = NULL, logical
   edge_periodic = FALSE, AcisOptions* ao = NULL)

outcome api_make_radius_two_ends(double start_rad, double
   end_rad, var_radius*& rad_obj, AcisOptions* ao = NULL)
```

```
outcome api_set_abh_blends(ENTITY_LIST const& entities,
   var_radius* left_rad, var_radius* right_rad = NULL,
   var_cross_section* cross_sec = NULL, CURVE* calibration_curve
   = NULL, EDGE* first_edge = NULL, EDGE* last_edge = NULL,
   ENTITY* face_edge1 = NULL, ENTITY* face_edge2 = NULL, logical
   smooth1 = TRUE, logical smooth2 = TRUE, double start_setback =
   0, double end_setback = 0, EDGE* loft_edge = NULL, double
   start_sbdiff = 0, double end_sbdiff = 0, logical
   start_sbdiff_set = TRUE, logical end_sbdiff_set = TRUE, double
   start_stop_ang = 0, double end_stop_ang = 0, AcisOptions* ao =
   NULL)

outcome api_set_ee_cr_blend(BODY* body, ENTITY* ent0, ENTITY*
   ent1, bl_convexity cxty, SPAposition const& hlp_pos, double
   radius, AcisOptions* ao = NULL)

outcome api_set_ee_vr_blend(BODY* body, ENTITY* ent0, ENTITY*
   ent1, bl_convexity cxty, SPAposition const& hlp_pos, curve
   const& def_curve, var_radius* left_rad, var_radius* right_rad
   = NULL, var_cross_section* vcs = NULL, AcisOptions* ao = NULL)

outcome api_set_inst_blend(BODY* body, ENTITY* owner,
   blend_transition action, SPAposition const& p = *(SPAposition
   const*)NULL_REF, AcisOptions* ao = NULL)

outcome api_terminate_advanced_blending()
```

Scheme Extensions

Topic: Ignore

```
(abl:abh-edge-offset blank radius limit-list
    [acis-opts])

(abl:abh-edge-project blank edge distance direction
    left sequence [acis-opts])

(abl:abh-imprint int-graph edge-list [acis-opts])

(abl:abh-slice blank tool [acis-opts])

(abl:const-rad radius [acis-opts])

(abl:create-vradius-wire svradius  min-param
    max-param max-iteration)

(abl:create-vradius-wire-from-edge svradius in-edge
    max-iteration)
```

```
(abl:edge-blend edge {vradius=null | vradius-pair
    round1=-1.0 round2=-1.0}
    [single=#f] [lofted-keyword loft-edge=null]
    [section-keyword left-thumbweight=-1.0
    right-thumbweight=-1.0]
    [side-edge1=null [tangent-flag1=#f]]
    [side-edge2=null [tangent-flag2=#f]]
    [start-setback=-1.0 end-setback=1.0])

(abl:ell-rad ref-face-left major1 min1 angle1 angle2
    [major2=major1 min2=min1] [acis-opts])

(abl:ent-ent-blend {face1 | edge1 [tangent-keyword
    tangent-face1]} {face2 | edge2
    [tangent-keyword tangent-face2]}
    {vradius | vradius-pair round1 round2}
    position convexity
    [def-edge] [section-keyword left-thumbweight
    right-thumbweight] [acis-opts])

(abl:create-vradius-value svradius sreal min-param
    max-param)

(abl:create-vradius-value-from-edge svradius
    sreal in-edge)

(abl:fixed-width-rad width [acis-opts])

(abl:make-radius-param-rads param-list radii-list
    [acis-opts])

(abl:make-radius-param-rads-tan param-list
    radii-list [slope-keyword slope]
    [slope-keyword slope] [acis-opts])

(abl:pos-rad position-list radii-list curve-edge
    ["start-tan"]["end-tan"] [transform] [acis-opts])

(abl:rnd-ch-rad left1 right1
    [left2=left1 right2=right1] [acis-opts])

(abl:set-abh-blends edge-list {vradius=null | vradius-pair}
    [section-keyword value1 value2]
    [calibration-keyword
    {calibration-curve start-edge end-edge} |
    {(calibration-curve start-edge end-edge)}]
    [side-edge1=null [tangent-flag1=#f]]
    [side-edge2=null [tangent-flag2=#f]]
    [start-setback=0 end-setback=0]
    [lofted-keyword loft-edge] [acis-opts])
```

```
(abl:set-instruction entity action=2 [position]
    [acis-opts])

(abl:spline-rad edge [acis-opts])

(abl:two-ends-rad radius1 radius2 [acis-opts])

(abl:var-round edge radius-1 radius-2
    ["fix" | "single"] [acis-opts])

(solid:blend-edges-pos-rads edge-list
    position-list radii-list [start-slope [end-slope]]
    [acis-opts])

(solid:var-chamfer-edges entity-list
    left-beginning-range [right-beginning-range]
    [left-end-range] [right-end-range]
    [left-round-chamfer-radius]
    [right-round-chamfer-radius] [acis-opts])
```