

Appendix A.

Reference Summary

Topic: Ignore

This appendix provides a summary of the reference items defined in the Precise Hidden Line Component. Just the name and a brief description of each item is given. There is a separate section for each type of item (class, function, Scheme extension, test harness command, etc.).

Classes

Topic: Ignore

ATTRIB_PHL Defines owning organization for other PHL attribute classes.

ATTRIB_PHL_VW Attaches precise hidden line data and viewing parameters to bodies.

ENTITY_PHL Defines the owning organization for all other PHL entity classes.

PHL_CAMERA Defines a camera viewpoint against which precise hidden lines are calculated.

PHL_EDGE Defines a regular or silhouette edge.

PHL_SEGMENT Defines a line segment with visibility information.

Functions

Topic: Ignore

api_initialize_precise_hidden_line Initializes the precise hidden line library.

api_phl_clean Removes PHL attributes from a list of bodies.



api_phl_compute	Computes precise hidden line data for a given view and list of bodies, and optionally, stores the data on the model as attributes.
api_phl_retrieve	Retrieves data stored in PHL attributes and returns it as an ENTITY_LIST of PHL_EDGEs.
api_phl_set_cell_factor	Sets the cell factor value.
api_phl_set_curve_resolution	Sets the curve resolution factor.
api_phl_set_occlusion	Sets the occlusion flag.
api_phl_set_shooting	Sets the shooting precision factor.
api_phl_set_smooth_angle	Sets the smooth angle.
api_phl_show_cell_factor	Shows the cell factor value.
api_phl_show_curve_resolution	Shows the curve resolution value.
api_phl_show_occlusion	Shows the occlusion flag.
api_phl_show_shooting	Shows the shooting precision factor.
api_terminate_precise_hidden_line	Terminates the precise hidden line library.
is_ATTRIB_PHL	Determines if the given entity is an ATTRIB_PHL.
is_ATTRIB_PHL_VW	Determines if the given entity is an ATTRIB_PHL_VW..
is_ENTITY_PHL	Determines if the given entity is an ENTITY_PHL.
is_PHL_CAMERA	Determines if the given entity is a PHL_CAMERA.
is_PHL_EDGE	Determines if the given entity is a PHL_EDGE.
is_PHL_SEGMENT	Determines if the given entity is a PHL_SEGMENT.

Options

Topic:

Ignore

phl_back_face_culling	Controls elimination of split faces from calculations.
-----------------------------	--

phl_cell_factor	Divides the projection plane into rectangular cells.
phl_draw_null_sedge	Controls whether or not subedges are drawn as hidden.
phl_lines	Sets the drawing of hidden lines in Scheme and the ACIS Test Harness.
phl_lines_style	Sets the style of drawing of hidden lines in Scheme and the ACIS Test Harness.
phl_occlusion	Determines if occlusion is calculated for occluded edges.
phl_rescrv	Determines into how many subedges a given curved edge is divided, depending on its curvature.
phl_reshoot	Determines the precision of the shooting.
phl_smooth_angle	Sets the maximum angle at which two faces can meet and still be considered tangentially smooth.

Scheme Extensions

Topic:	Ignore
phl:clean	Removes precise hidden line data.
phl:compute	Computes precise hidden line data.
phl:display	Computes and displays hidden line drawing.
phl:draw	Draws precise hidden line data.
phl:draw-cv	Draws precise hidden line data.
phl:interleaf	Prints a precise hidden line image to an Interleaf file.
phl:options	Shows precise hidden line related options.
phl:postscript	Prints a precise hidden line image to a PostScript file.

phl:postscript-cv Prints a precise hidden line image to a
PostScript file.

phl:retrieve Retrieves precise hidden line data from
attributes attached to the bodies.