

This file gives an overview of all 3D RenderLib for Windows' functions.

FUNCTION OVERVIEW

RLib_AddExclusionID	Adds a structure-ID to the exclusion ID-set associated with a viewport.
RLib_AddExclusionName	Adds a structure-name to the exclusion name-set associated with a viewport.
RLib_AddInclusionID	Adds a structure-ID to the inclusion ID-set associated with a viewport.
RLib_AddInclusionName	Adds a structure-name to the inclusion name-set associated with a viewport.
RLib_AddLamp	Adds a lamp to a viewport.
RLib_BringDisplayToTop	Brings the display's window to the top of a stack of overlapping windows. In addition, it activates the window.
RLib_ClearBuffer	Clears the memory bitmap.
RLib_ClearDisplay	Clears the display and all viewports in it.
RLib_ClearDisplayID	Clears the display's ID. i.e. makes it zero.
RLib_ClearDisplayName	Clears the display's name.
RLib_ClearExclusionIDSet	Removes all entries from the exclusion ID-set associated with a viewport.
RLib_ClearExclusionNameSet	Removes all entries from the exclusion name-set associated with a viewport.
RLib_ClearFileMainStructure	Clears the file-main bucket in a session's global structure table (GST).
RLib_ClearGlobalMatrix	Clears a viewport's global-matrix.
RLib_ClearInclusionIDSet	Removes all entries from the inclusion ID-set associated with a viewport.
RLib_ClearInclusionNameSet	Removes all entries from the inclusion name-set associated with a viewport.
RLib_ClearLampID	Clears a lamp's ID. i.e. makes it zero.
RLib_ClearLampName	Clears a lamp's name.
RLib_ClearMatrix	Clears a matrix, i.e. makes it the identity matrix.
RLib_ClearStructure	Clears a structure, i.e. deletes all elements in it.
RLib_ClearStructureID	Clears the structure's ID. i.e. makes it zero.
RLib_ClearStructureName	Clears a structure's name.
RLib_ClearViewport	Clears a viewport.
RLib_ClearViewportID	Clears the Viewport's ID. i.e. makes it zero.
RLib_ClearViewportName	Clears the viewport's name.
RLib_ClearViewportStructure	Removes the association between a structure and a viewport.

RLib_CloseAllSessions	Closes all open sessions and structures.
RLib_CloseAllStructures	Closes all open structures in a session.
RLib_CloseDisplay	Closes a display.
RLib_CloseLamp	Closes a lamp.
RLib_CloseLib	Closes 3D RenderLib for further use.
RLib_CloseSession	Closes a session.
RLib_CloseStructure	Closes a structure.
RLib_CloseViewport	Closes a viewport.
RLib_CompactAllNops	Compacts the NOPS of all structures in a session.
RLib_CompactAllStructures	Compacts the NOPS of all elements in all structures in a session.
RLib_CompactGST	Compacts the GST of a session.
RLib_CompactNops	Compacts the NOPS of a structure.
RLib_CompactSession	Compacts a session, i.e. compacts the element-NOPS of all elements in all structures; compacts the structure-NOPS of all structures and compacts the session's GST.
RLib_CompactStructure	Compacts a structure, i.e. compacts the element-NOPS of all elements in a structure and adds it to the structure-NOPS.
RLib_Concatenate	Concatenates two transformation matrices to give a net transformation matrix.
RLib_CopyElement	Copies the current element of StructureA after the current element of structureB.
RLib_CopyMatrix	Copies a matrix.
RLib_CopyStructure	Copies all elements of a structure, to another structure.
RLib_CopyViewportLamps	Copies the lamps used in one Viewport to another.
RLib_CopyViewportSettings	Copies Viewport settings from one viewport to another.
RLib_CreateDirectionLamp	Creates a lamp with a direction only.
RLib_CreateDisplay	Creates a display.
RLib_CreatePointLamp	Creates a point-lamp at a specific position, radiating light equally in all directions.
RLib_CreateSession	Creates a session.
RLib_CreateStructure	Creates a structure.
RLib_CreateViewport	Creates a viewport in a display.
RLib_CreateWarnLamp	Creates a lamp with Warn-light controls.
RLib_CreateWireFrameDisplay	Creates a wireframe-display.
RLib_DecrementElementIndex	Decrements a structure's element-index with the specified amount.
RLib_DeleteAllDisplays	Deletes all displays and viewports.
RLib_DeleteAllLamps	Deletes all lamps.
RLib_DeleteAllViewports	Deletes all viewports in a display.
RLib_DeleteDisplay	Deletes a display.
RLib_DeleteElement	Deletes the current element of a structure.

RLib_DeleteLamp	Deletes a lamp.
RLib_DeleteStructure	Deletes a structure.
RLib_DeleteViewport	Deletes a viewport.
RLib_ExcludeAllElements	Clears the viewport's element-mask.
RLib_ExcludeElement	Excludes the specified element from processing.
RLib_GetCallMatrix	Retrieves the matrix used by a RLib_ET_CALL_STRUCTURE , RLib_ET_CALL_NAMED_STRUCTURE , RLib_ET_CALL_STRUC_EXT or RLib_ET_CALL_NAMED_STRUC_EXT element.
RLib_GetCallNamedStructure	Retrieves all data contained in a RLib_ET_CALL_NAMED_STRUCTURE element.
RLib_GetCallNamedStructure_ext	Retrieves all data contained in a RLib_ET_CALL_NAMED_STRUC_EXT element.
RLib_GetCallStructure	Retrieves all data contained in a RLib_ET_CALL_STRUCTURE element.
RLib_GetCallStructure_ext	Retrieves all data contained in a RLib_ET_CALL_STRUC_EXT element.
RLib_GetEdgeColor	Retrieves the color contained in a RLib_ET_EDGECOLOR element.
RLib_GetEdgeFlag	Retrieves the flag contained in a RLib_ET_EDGEFLAG element.
RLib_GetElementContents	Retrieves the characteristics of the current element in the specified structure. This includes, for instance, the element-type.
RLib_GetElementCount	Returns the number of elements currently in the specified structure.
RLib_GetFillColor	Retrieves the color contained in a RLib_ET_FILLCOLOR element.
RLib_GetFlatPolygons	Retrieves all data contained in a RLib_ET_FLATPOLYGONS element.
RLib_GetFlatPolygonSet	Retrieves all data contained in a RLib_ET_FLATPOLYGON_SET element.
RLib_GetFlatSquares	Retrieves all data contained in a RLib_ET_FLATSQUARES element.
RLib_GetFlatTriangles	Retrieves all data contained in a RLib_ET_FLATTRIANGLES element.
RLib_GetGSTSize	Returns a session's Global Structure Table (GST) size.
RLib_GetLabel	Retrieves the label-name contained in a RLib_ET_LABEL element.
RLib_GetLineColor	Retrieves the color contained in a RLib_ET_LINECOLOR element.
RLib_GetLocalMatrix	Retrieves a structure's local-matrix.
RLib_GetMaxGSTEntry	Retrieves the largest GST-entry used by a structure.
RLib_GetPolygons	Retrieves all data contained in a RLib_ET_POLYGONS element.
RLib_GetPolygonSet	Retrieves all data contained in a RLib_ET_POLYGON_SET element.

RLib_GetPolyline	Retrieves all data contained in a RLib_ET_POLYLINE element.
RLib_GetPolylineSet	Retrieves all data contained in a RLib_ET_POLYLINE_SET element.
RLib_GetSmoothPolygonSet_vn	Retrieves all data contained in a RLib_ET_SMOOTHPOLYGON_SET_VN element.
RLib_GetSmoothPolygons_vn	Retrieves all data contained in a RLib_ET_SMOOTHPOLYGONS_VN element.
RLib_GetSmoothSquares_vn	Retrieves all data contained in a RLib_ET_SMOOTHSQUARES_VN element.
RLib_GetSmoothTriangles_vn	Retrieves all data contained in a RLib_ET_SMOOTHTRIANGLES_VN element.
RLib_GetSquares	Retrieves all data contained in a RLib_ET_SQUARES element.
RLib_GetStructureCount	Returns the number of structures in a session.
RLib_GetStructureGSTEntry	Returns a structure's global structure table (GST) entry.
RLib_GetStructureID	Returns a structure's ID.
RLib_GetStructureIDGSTEntry	Returns a structure's global table structure table (GST) entry, by using the structure's ID.
RLib_GetStructureMask	Returns a structure's mask.
RLib_GetStructureName	Retrieves a structure's name.
RLib_GetStructureNameGSTEntry	Returns a structure's global table structure table (GST) entry, by using the structure's name.
RLib_GetStructureValue	Returns a structure's value.
RLib_GetSurfaceParams	Retrieves the surface-parameters contained in a RLib_ET_SURFACEPARAMS element.
RLib_GetTriangles	Retrieves all data contained in a RLib_ET_TRIANGLES element.
RLib_GotoLabel	Searches the structure for a RLib_ET_LABEL element containing the specified label-name.
RLib_IncludeAllElements	Sets all bits in the viewport's element-mask.
RLib_IncludeElement	Includes the specified element for processing.
RLib_IncrementElementIndex	Increments a structure's element-index with the specified amount.
RLib_InqAmbientColor	Retrieves a viewport's current ambient-color.
RLib_InqAmbientIntensity	Returns a viewport's current ambient-intensity.
RLib_InqBackClippingPlane	Returns a viewport's current back clipping-plane distance.
RLib_InqCameraDirection	Retrieves the camera's direction.
RLib_InqCameraFocus	Retrieves the camera's focus.
RLib_InqCameraFocusFlag	Returns the camera's focus-flag.

RLib_InqCameraPosition	Retrieves the camera's position.
RLib_InqCameraRotation	Returns the camera's rotation.
RLib_InqDefaultFreeGSTEntries	Returns the default number of GST entries.
RLib_InqDisplay	Returns the display identifier the viewport is in.
RLib_InqDisplayBackgroundColor	Retrieves a display's background-color.
RLib_InqDisplayBase	Returns the base.
RLib_InqDisplayhWnd	Returns the display identifier that owns the window identified by hWnd.
RLib_InqDisplayID	Returns a display's ID.
RLib_InqDisplayName	Retrieves a display's name.
RLib_InqDisplayOpenCount	Returns a display's current open-count.
RLib_InqDoubleBufferFlag	Returns a viewport's doublebuffer-flag.
RLib_InqDoubleSidedFlag	Returns a viewport's doublesided-flag.
RLib_InqEdgeColor	Retrieves a viewport's current edge-color.
RLib_InqEdgeFlag	Returns a viewport's current edge-flag.
RLib_InqElementIndex	Returns a structure's current element-index.
RLib_InqElementPadding	Returns a session's current element-padding.
RLib_InqExclusionMask	Returns a viewport's exclusion-mask.
RLib_InqExclusionRange	Retrieves a viewport's exclusion-range.
RLib_InqFillColor	Retrieves a viewport's current fill-color.
RLib_InqFrontClippingPlane	Returns a viewport's current front clipping-plane distance.
RLib_InqGlobalMatrix	Retrieves a viewport's global-matrix.
RLib_InqGSTPadding	Returns a session's GST-padding.
RLib_InqHWND	Returns the handle, identifying the window owned by a display.
RLib_InqInclusionMask	Returns a viewport's inclusion-mask.
RLib_InqInclusionRange	Retrieves a viewport's inclusion-range.
RLib_InqLampBase	Returns the base.
RLib_InqLampColor	Retrieves a lamp's color.
RLib_InqLampDirection	Retrieves a lamp's direction.
RLib_InqLampFocus	Retrieves a lamp's focus.
RLib_InqLampFocusFlag	Returns a lamp's focus-flag.
RLib_InqLampID	Returns a lamp's ID.
RLib_InqLampIntensity	Retrieves a lamp's intensity.
RLib_InqLampName	Retrieves a lamp's name.
RLib_InqLampOpenCount	Returns a lamp's current open-count.
RLib_InqLampPosition	Retrieves a lamp's position.
RLib_InqLampType	Returns a lamp's type.
RLib_InqLineColor	Retrieves a viewport's current line-color.
RLib_InqPermitRenderingFlag	Returns a display's current permit-rendering flag.
RLib_InqProjectionType	Returns a viewport's current projection-type.
RLib_InqRenderMode	Returns a viewport's current render-mode.
RLib_InqSession	Returns the session identifier a structure is in.
RLib_InqSessionBase	Returns the base.
RLib_InqSessionOpenCount	Returns a session's current open-count.

RLib_InqStructureOpenCount	Returns a structure's current open-count.
RLib_InqStructurePadding	Returns a session's structure-padding.
RLib_InqSurfaceParams	Retrieves a viewport's current surface-parameters.
RLib_InqTransparentFlag	Returns a viewport's current transparent-flag.
RLib_InqViewportBackgroundColor	Retrieves a viewport's background-color.
RLib_InqViewportDimensions	Retrieves a viewport's dimensions.
RLib_InqViewportID	Returns a viewport's ID.
RLib_InqViewportName	Retrieves a viewport's name.
RLib_InqViewportOpenCount	Returns a viewport's current open-count.
RLib_InqViewportStructure	Returns a viewport's associated structure.
RLib_InqViewWindow	Retrieves a viewport's current view-window characteristics.
RLib_InqWarnLampAngle	Returns a Warn-lamp's maximum angle.
RLib_InqWarnLampExp	Returns a Warn-lamp's exponent.
RLib_InqWireFrameColor	Retrieves a display's current wireframe-color.
RLib_InqZBufferValue	Returns a viewport's Z-buffer value.
RLib_MoveDisplay	Moves the display's window to the specified position on the screen.
RLib_Normalize	Normalizes a vector.
RLib_OpenDisplay	Returns the identifier of the display with the specified ID.
RLib_OpenFileMainStructure	Opens a session's file-main structure.
RLib_OpenGSTEntry	Opens a structure by specifying its GST-entry.
RLib_OpenLamp	Returns the identifier of the lamp with the specified ID.
RLib_OpenLib	Opens RenderLib.
RLib_OpenNamedDisplay	Returns the identifier of the display with the specified name.
RLib_OpenNamedLamp	Returns the identifier of the lamp with the specified name.
RLib_OpenNamedStructure	Opens a structure by specifying its name.
RLib_OpenNamedViewport	Returns the identifier of the viewport with the specified name.
RLib_OpenSession	Returns the identifier of the session with the specified name.
RLib_OpenStructure	Opens a structure by specifying its ID.
RLib_OpenViewport	Returns the identifier of the viewport with the specified ID.
RLib_PutCallMatrix	Inserts the specifies matrix into a RLib_ET_CALL_STRUCTURE , RLib_ET_CALL_NAMED_STRUCTURE , RLib_ET_CALL_STRUC_EXT or RLib_ET_CALL_NAMED_STRUC_EXT element.
RLib_PutCallNamedStructure	Inserts a RLib_ET_CALL_NAMED_STRUCTURE

RLib_PutCallNamedStructure_ext	element. Inserts a RLib_ET_CALL_NAMED_STRUC_EXT element.
RLib_PutCallNamedStructure_fwd	Combines a RLib_CreateStructure , RLib_PutStructureName and RLib_PutCallNamedStructure call.
RLib_PutCallStructure	Inserts a RLib_ET_CALL_STRUCTURE element.
RLib_PutCallStructure_ext	Inserts a RLib_ET_CALL_STRUC_EXT element.
RLib_PutCallStructure_fwd	Combines a RLib_CreateStructure , RLib_PutStructureID and RLib_PutCallStructure call.
RLib_PutEdgeColor	Inserts a RLib_ET_EDGECOLOR element.
RLib_PutEdgeFlag	Inserts a RLib_ET_EDGEFLAG element.
RLib_PutFileMainStructure	Makes the specified structure the file-main structure.
RLib_PutFillColor	Inserts a RLib_ET_FILLCOLOR element.
RLib_PutFlatPolygons	Inserts a RLib_ET_FLATPOLYGONS element.
RLib_PutFlatPolygonSet	Inserts a RLib_ET_FLATPOLYGON_SET element.
RLib_PutFlatSquares	Inserts a RLib_ET_FLATSQUARES element.
RLib_PutFlatTriangles	Inserts a RLib_ET_FLATTRIANGLES element.
RLib_PutLabel	Inserts a RLib_ET_LABEL element.
RLib_PutLineColor	Inserts a RLib_ET_LINECOLOR element.
RLib_PutLocalMatrix	Makes the specified matrix a structure's local-matrix.
RLib_PutPolygons	Inserts a RLib_ET_POLYGONS element.
RLib_PutPolygonSet	Inserts a RLib_ET_POLYGON_SET element.
RLib_PutPolyline	Inserts a RLib_ET_POLYLINE element.
RLib_PutPolylineSet	Inserts a RLib_ET_POLYLINE_SET element.
RLib_PutSmoothPolygonSet_vn	Inserts a RLib_ET_SMOOTHPOLYGON_SET_VN element.
RLib_PutSmoothPolygons_vn	Inserts a RLib_ET_SMOOTHPOLYGONS_VN element.
RLib_PutSmoothSquares_vn	Inserts a RLib_ET_SMOOTHSQUARES_VN element.
RLib_PutSmoothTriangles_vn	Inserts a RLib_ET_SMOOTHTRIANGLES_VN element.

RLib_PutSquares	element.
RLib_PutStructureID	Inserts a RLib_ET_SQUARES element.
RLib_PutStructureMask	Sets a structure's ID.
RLib_PutStructureName	Sets a structure's mask.
RLib_PutStructureValue	Sets a structure's name.
RLib_PutSurfaceParams	Sets a structure's value.
RLib_PutTriangles	Inserts a RLib_ET_SURFACEPARAMS element.
RLib_RefreshDisplay	Inserts a RLib_ET_TRIANGLES element.
RLib_RefreshViewport	Clears the specified display, and refreshes all viewports in it.
RLib_RemoveAllLamps	Clears the specified viewport and renders the structure associated with this viewport.
RLib_RemoveExclusionID	Removes a viewport's lamps.
RLib_RemoveExclusionName	Removes a structure-ID from the exclusion ID-set associated with a viewport.
RLib_RemoveInclusionID	Removes a name from the exclusion name-set associated with a viewport.
RLib_RemoveInclusionName	Removes a structure-ID from the inclusion ID-set associated with a viewport.
RLib_RemoveLamp	Removes a structure-name from the inclusion name-set associated with a viewport.
RLib_RenderFlatPolygons	Removes a lamp from a viewport.
RLib_RenderFlatPolygonSet	Renders a collection of flatpolygon-primitives in a viewport.
RLib_RenderFlatSquares	Renders a flatpolygonset-primitive in a viewport.
RLib_RenderFlatTriangles	Renders a collection of flatsquare-primitives in a viewport.
RLib_RenderPolygons	Renders a collection of flattriangle-primitives in a viewport.
RLib_RenderPolygonSet	Renders a collection of polygon-primitives in a viewport.
RLib_RenderPolyline	Renders a polygonset-primitive in a viewport.
RLib_RenderPolylineSet	Draws a polyline-primitive in a viewport.
RLib_RenderSmoothPolygonSet_vn	Draws a polylinset-primitive in a viewport.
RLib_RenderSmoothPolygons_vn	Renders a smoothpolygonset-primitive in a viewport.
RLib_RenderSmoothSquares_vn	Renders a collection of smoothpolygon-primitives in a viewport.
RLib_RenderSmoothTriangles_vn	Renders a collection of smoothsquare-primitives in a viewport.
RLib_RenderSquares	Renders a collection of smoothtriangle-primitives in a viewport.
	Renders a collection of square-

RLib_RenderStructure	primitives in a viewport.
RLib_RenderTriangles	Renders a structure in a viewport.
	Renders a collection of triangle-primitives in a viewport.
RLib_RotateMatrix	Calculates a transformation matrix describing a rotation.
RLib_SaveDisplay	Saves the contents of a display in a Windows bitmap (.bmp) file.
RLib_SaveViewport	Saves the contents of a viewport in a Windows bitmap (.bmp) file.
RLib_ScaleMatrix	Calculates a transformation matrix describing a scaling.
RLib_SetAmbientColor	Sets a viewport's ambient-color.
RLib_SetAmbientIntensity	Sets a viewport's ambient-intensity.
RLib_SetBackClippingPlane	Sets a viewport's back clipping-plane distance.
RLib_SetCameraDirection	Sets the camera's direction.
RLib_SetCameraFocus	Sets the camera's focus.
RLib_SetCameraFocusFlag	Sets the camera's focus-flag.
RLib_SetCameraPosition	Sets the camera's position.
RLib_SetCameraRotation	Sets the camera's rotation.
RLib_SetDefaultFreeGSTEntries	Sets the default number of GST entries.
RLib_SetDisplayBackGroundColor	Sets a display's background-color.
	Sets a display's ID.
RLib_SetDisplayID	Sets a display's ID.
RLib_SetDisplayName	Sets a display's name.
RLib_SetDoubleBufferFlag	Sets a viewport's doublebuffer-flag.
RLib_SetDoubleSidedFlag	Sets a viewport's doublesided-flag.
RLib_SetEdgeColor	Sets a viewport's edge-color.
RLib_SetEdgeFlag	Sets a viewport's edge-flag.
RLib_SetElementIndex	Sets a structure's current element-index.
RLib_SetElementPadding	Sets a session's element-padding.
RLib_SetExclusionMask	Sets a viewport's exclusion-mask.
RLib_SetExclusionRange	Sets a viewport's exclusion-range.
RLib_SetFillColor	Sets a viewport's fill-color.
RLib_SetFrontClippingPlane	Sets a viewport's front clipping-plane distance.
	Sets a viewport's global-matrix.
RLib_SetGlobalMatrix	Sets a viewport's global-matrix.
RLib_SetGSTPadding	Sets a session's GST-padding.
RLib_SetInclusionMask	Sets a viewport's inclusion-mask.
RLib_SetInclusionRange	Sets a viewport's inclusion-range.
RLib_SetLampColor	Sets a lamp's color.
RLib_SetLampDirection	Sets a lamp's direction.
RLib_SetLampFocus	Sets a lamp's focus.
RLib_SetLampFocusFlag	Sets a lamp's focus-flag.
RLib_SetLampID	Sets a lamp's ID.
RLib_SetLampIntensity	Sets a lamp's intensity.
RLib_SetLampName	Sets a lamp's name.
RLib_SetLampPosition	Sets a lamp's position.
RLib_SetLineColor	Sets a viewport's current line-color.
RLib_SetPermitRenderingFlag	Sets a display's permit-rendering flag.
RLib_SetProjectionType	Sets a viewport's projection-type.
RLib_SetRenderMode	Sets a viewport's render-mode.
RLib_SetStructurePadding	Sets a session's structure-padding.
RLib_SetSurfaceParams	Sets a viewport's surface-parameters.
RLib_SetTransparentFlag	Sets a viewport's transparent-flag.

RLib_SetViewportBackgroundColor	Sets a viewport's current background-color.
RLib_SetViewportDimensions	Sets a viewport's dimensions.
RLib_SetViewportID	Sets a viewport's ID.
RLib_SetViewportName	Sets a viewport's name.
RLib_SetViewportStructure	Sets a viewport's associated structure.
RLib_SetViewWindow	Sets a viewport's view-window characteristics.
RLib_SetWarnLampAngle	Sets a Warn-lamp's maximum angle.
RLib_SetWarnLampExp	Sets a Warn-lamp's exponent.
RLib_SetWireFrameColor	Sets a display's wireframe-color.
RLib_SetZBufferValue	Sets a viewport's Z-buffer value.
RLib_SwitchBuffer	Copies the memory bitmap to the screen.
RLib_TCO_WM_PAINT	'Takes Care Of' the WM_PAINT message received by the window callback function of a display.
RLib_TCO_WM_PALETTECHANGED	'Takes Care Of' the WM_PALETTECHANGED message received by the window callback function of a display.
RLib_TCO_WM_QUERYNEWPALETTE	'Takes Care Of' the WM_QUERYNEWPALETTE message received by the window callback function of a display.
RLib_TranslateMatrix	Calculates a transformation matrix describing a Translation.
RLib_Wait	Yields control to other applications until the WM_QUIT message is received.