

Overview documentation, viewlib

Vibeke Skytt

June 17, 2010

goview is an application program in the module viewlib. It is a utility to support visualization of curves, surface, point clouds and line clouds.

goview can read curves and surfaces from an IGES file or from the GoTools internal file format, g2, and visualize those. Currently, goview is not able to visualize volumes. In the volume case, it is recommended to pick the boundary surfaces corresponding to the volume and draw them.

goview uses Qt for representing the GUI and openGl for graphics. Curves and surfaces are tessellated in the submodule tessellate in the module gotools-core. According to their type, curves and surfaces are approximated by triangles or line segments that are convenient for visualization using openGl.

The model in the viewer is manipulated using the mouse keys. The left one rotates the model, the middle one is for zooming and the right one for translation of the model.

goview has got a graphical user interface. It has a graphical window, a window containing an object list and a number of pull down menus:

file commands to read and write geometry and to close the current session and make the viewer ready to read a new geometry file.

view options to choose shaded or wire frame mode for visualization. A highlight modus may be toggled and some focusing facilities exist.

select Selection of entities can be done using this menu, in the object list or by using the control key in combination with the left mouse key.

group grouping of objects. This menu is not really used

object this menu offers the possibility to alter the resolution of curves and surfaces and to enable/disable selected entities from the view.

Some commands have a key pad short cut.

goview is a utility and not a product. This implies unfortunately that the help functionality is not implemented. Visualization of trimmed surfaces can have some flaws, but they are normally repaired or minimized by increasing the resolution.