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<https://visualization.ltx.de/>

### Visualization Library - Description

The Visualization Library provides an advanced, model-integrated and vendorunspecific visualization tool for Modelica models. It is especially useful in the mechanical, fluid and electrical area. Many components are available for offline, online and real-time animation. Most components are attached to a Modelica model with a Frame connector of the Modelica.Mechanics.MultiBody library.

The library contains visualizers for basic shapes, CAD files (.3ds, .obj, .dxf, .stl, .vrml and more),flexible bodies and surfaces, text, light, energy-/mass-flow visualizers, analogue instruments and weather effects. A camera system can be used to define the point of view manually or controlled by simulation.

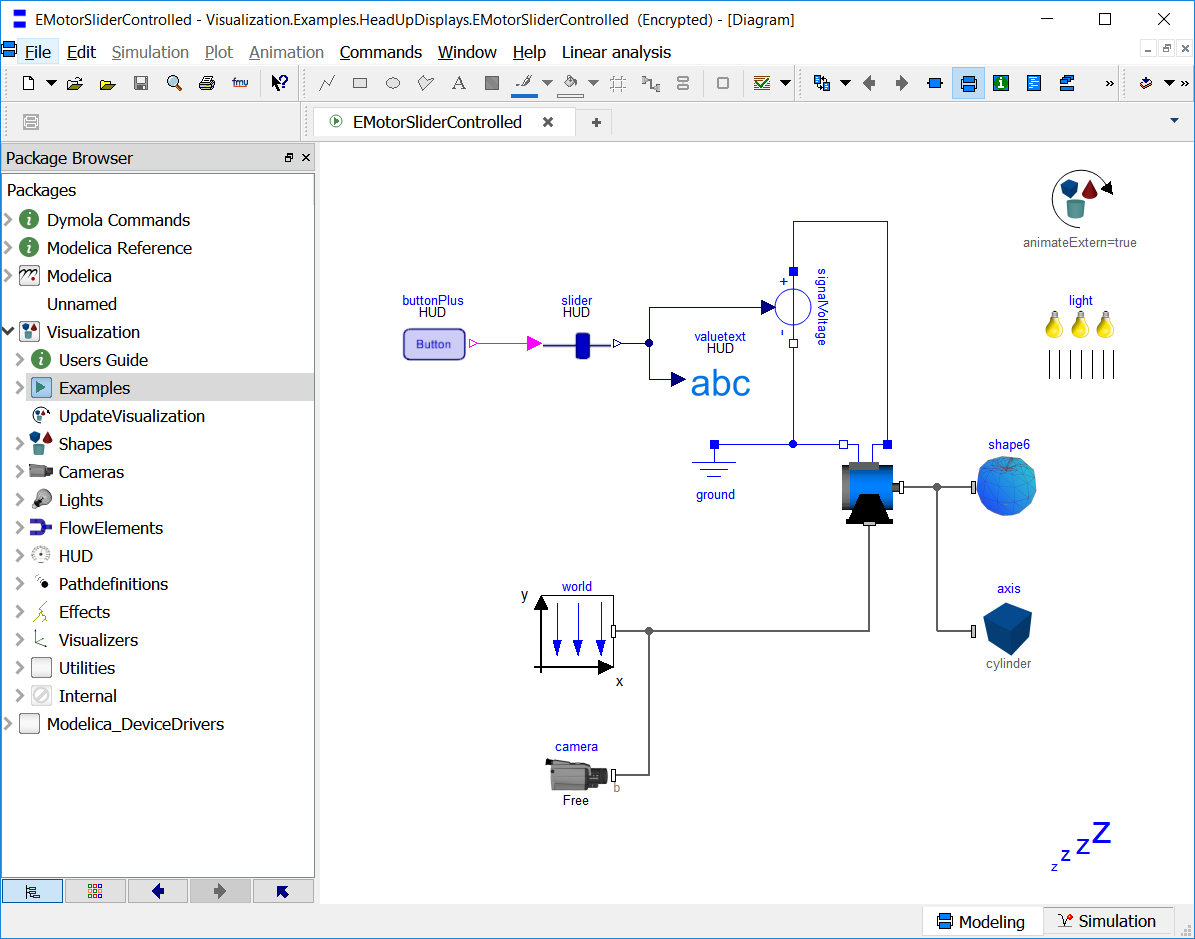
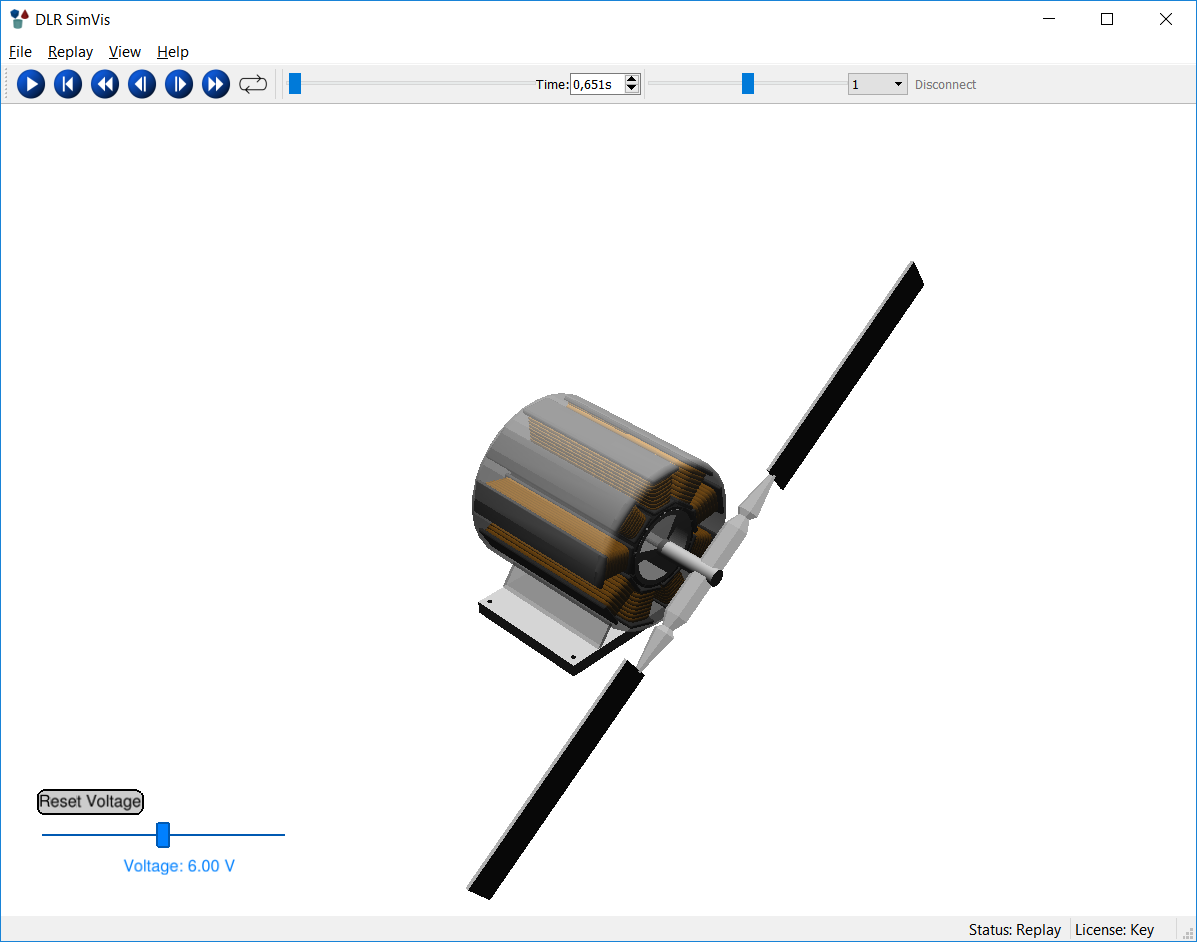
Components like Buttons, Checkboxes and Sliders are available for the creation of graphical user interfaces for the visualization software. These elements can be used to control the simulation interactively during the simulation run.

The components are visualized in an integrated system providing support for multi-camera scenes, a fullscreen mode, several monitors, replays and stereo/wireframe modes. It is based on the OpenSceneGraph framework.

The integrated video-export function allows the export of the animation replays as MPEG4, Windows Media Video, Flash Video and Lossless HUFF video.

The standard Modelica visualization for multi-body models can be replaced by this Visualization tool, if the Shape component in the ModelicaServices Library is replaced by the user.

More information and videos are available at the website of  
[DLR Systems & Control Innovation Lab](http://www.systemcontrolinnovationlab.de/the-dlr-visualization-library)

[](https://ltx.de/visualization/img/vi1/VisualizationLibrary-EMotorDymola.png)Visualization Library - Modelica components, here used in Dymola[](https://ltx.de/visualization/img/vi1/VisualizationLibrary-EMotorSimVis.png)DLR SimVis - Viewer Software