

# VRweb - HELP

The Amadeus Scene Viewer displays three dimensional scenes. It supports two file formats: the Hyper-G Scene Description Format (SDF) and the Virtual Reality Modelling Language (VRML). VRML seems to become the new standard in the Web. It supports links, inline scenes, levels of detail etc.

Many applications can be built up using 3D graphics: electronic shopping, virtual museums or new user interfaces for huge databases.

The VRweb window is divided vertically into four areas: menu bar, tool bar, display area and status bar. The menu bar provides access to the full functionality of VRweb, the toolbar and additional accelerator keys provide quick access to commonly used functions.

The menu bar consists of five important items:

1. [File](#): if you click on it, a sub menu will be opened with the following points:

- [Open](#)
- [Close](#)
- [Save](#)
- [Print](#)
- [Print Preview](#)
- [Print Setup](#)
- [Exit](#)

Between [Print Setup](#) and [Exit](#) there are standing those files which you have opened and closed before.

2. [View](#): The first five points of the submenu are the possible rendering modes:

- [Wire Frame](#)
- [Hidden Line](#)
- [Flat Shading](#)
- [Smooth Shading](#)
- [Texturing](#)

The next point helps you to define the velocity and the rendering modes during the navigation:  
[Interactiv](#)

Should users ever get lost, you can use the following function.

- [Reset](#)

If you develop your own VRML scenes you will need this function:

- [VRML Parser Output](#)

The next two functions help you to define the look of the object

Polygons

Lighting

With the last two points of this menu you can switch on or switch of the following two bars

Toolbar

Statusbar

3. [Navigation](#): Here you can make use of the viewer in one of the five navigation modes, which best fits your needs:

Flip Object

Walk

Fly

Fly to

Heads up

Here you can define between velocity and distance:

Velocity Mode

4. [Window](#): Those menu-points help you to arrange all opened windows of the display area:

Cascade

Tile

Arrange Icons

Under the last menu item files, which are open at the moment, are listed.

5. [Help](#): Shows this helppage and gives information about the VRweb-viewer

# Wire Frame

In wire frame mode only the boundaries of the polygons of the object are drawn.

Other modes:

[Hidden Line](#)

[Flat Shading](#)

[Smooth Shading](#)

[Texturing](#)

# Hidden Line

In the hidden line mode the hidden lines are removed.

Other modes:

[Wireframe](#)

[Flat Shading](#)

[Smooth Shading](#)

[Texturing](#)

# Flat Shading

In the flat shading mode the polygons of the object are filled with an uniform color.

Other modes:

[Wireframe](#)

[Hidden Line](#)

[Smooth Shading](#)

[Texturing](#)

# Smooth Shading

Smooth shading provides good rendering quality.

Other modes:

[Wireframe](#)

[Hidden Line](#)

[Flat Shading](#)

[Texturing](#)

# Texturing

In the texturing mapping mode realistic images are mapped onto the faces of the scene.

Other modes:

[Wireframe](#)

[Hidden Line](#)

[Flat Shading](#)

[Smooth Shading](#)

# Flip Object

This mode is useful to look at one object from all sides (f.i. an airplane, engine, or molecular model). With the left mouse-button you can translate the object, with the right mouse-button you can zoom it and with both buttons you can rotate it.

Other navigation modes:

[Walk](#)

[Fly](#)

[Fly To](#)

[Heads up](#)



# Walk

In bigger scenes like a virtual museum or city, this mode simulates walking on the ground with the possibility of walking to the left and right (left mouse-button), turning the head (right mouse-button), and moving up and down comparable to an elevator (both buttons).

Other navigation modes:

[Flip Object](#)

[Fly](#)

[Fly to](#)

[Heads up](#)

# Fly

It's like piloting an aircraft. Flight direction is controlled by the position of the mouse cursor relative to the mid-point of the viewing window (denoted by a cross-hair). The left mouse button activates flight, the other two mouse buttons control acceleration and deceleration. The current direction and speed are indicated in an overlay atop the display area.

Other navigation modes:

[Flip Object](#)

[Walk](#)

[Fly to](#)

[Heads up](#)

# Fly to

Fly to implements point-of-interest (POI) style navigation. Here, the user first selects a point of interest somewhere in the model and is then able to perform controlled, logarithmic motion towards (and away from) the POI, approaching by the same fractional distance in each time step. Optionally, a rotational component can be activated (with the Shift key), which results in a final approach path to the POI head-on along the surface normal. This mode is very useful for examining details of a scene and complements other navigation metaphors like Walk or Flip, but is not sufficient as a navigation technique per se.

Other navigation modes:

[Flip Object](#)

[Walk](#)

[Fly](#)

[Heads up](#)

# Heads up

Heads up is perhaps the easiest navigation mode for beginners, since its controls are clearly visible. Icons overlaid across the center of the viewing window (like a pilot's heads-up display) symbolise the individual navigation tools: eyes to look around, a walking person for walking, crossed arrows for vertical and sideways motion and a crosshair symbol to activate point-of-interest (POI) motion.

Other navigation modes:

[Flip Object](#)

[Walk](#)

[Fly](#)

[Fly to](#)

# Cascade

Arranges the open group windows in an overlapping pattern so that the title bar of each window is visible.

# Tile

Arranges the open group windows side by side so that all windows are visible.

# Arrange Icons

Puts all icons at the bottom of the display area.

# Open

Opens the selected document.



# Close

Closes the selected document.

# Save

Saves the changes of the actual document.

# Print

Prints the selected document.

# Print Preview

Shows how the document looks like, if it is printed.

# Print Setup

Here you can set the selected printer as well as the printer-options.

## Exit

Here you can leave the VRweb-viewer.

# Interactive

With the menupoint Enable/Disable you can switch on or switch off this point. If you switch on this mode (there will be a hook in front of it), you have to choose one of the five rendering modes for the interactive mode. For instance when your rendering mode is texture mapping you can select as interactive mode flat shading. This means that if you will walk through the scene you will see it flat shaded. The moment you stop, it is rendered using the textures. The advantage of this quality switch back compared to level of detail acceleration methods is that you see all objects in their normal size and shape.

# Toolbar

Shows (hook in front of it) or shows not (no hook in front of it) the toolbar.



# Statusbar

Shows (hook in front of it) or shows not (no hook in front of it) the statusbar.

# Reset

This very important function restores the view of the scene.

# Polygons

You can switch on the function **Single Sided** if a face needs to be seen only from one side: e.g. a cube you are looking on only from the outside.

If a face needs to be seen from both sides, you have to switch on the function **Double Sided**: e.g. you are looking on a house from outside and from inside.

If you don't want to care about which side needs to be seen you switch on the function **Automatic**.

# VRML Parser Output

VRML is an object oriented plain text format based on the Open Inventor format by Silicon Graphics. It is editable with any text editor. Especially when developing your own VRML scenes it is often useful to know about parser errors or the complexity of the scene. Select the parser output menu item for viewing messages from the parser and the polygon count of the scene.

# Lighting

With the function [Switch off](#) the light source is switched off.

With the function [Switch on](#) the light source is switched on and with the function [Automatic](#) the light source is used automatically.

# Velocity Mode

If you switch on the velocity mode, you define the velocity instead of the distance in the Walk and the Headsup modes. This means, if you press the mouse-button, but you don't move the mouse, the object is moving.



