

Virtual Paint

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Using the Menu Bar

The menu bar provides several options. The user can create a new file, turn on/off the secondary view window, change background color, etc...

For more details, please see the following sections.

File

The file menu option provides the ability to create a new design. When a new design is created, Virtual Paint prompts for a title for the upcoming design. From the file menu, the user can save the current design to a VRML file (*.wrl). Closing Virtual Paint can also be accomplished.

View

If the screen contains erroneous graphics, the screen can be re-drawn, or re-freshed, from this menu. The user can also choose to view a list of entire objects in the current 3D world. Virtual Paint provides an X-Y Axis view for the design creation. If this is not sufficient, an X-Z Axis view can be seen in a miniature window. This window can be made to Stay-On-Top by accessing its menu by right clicking the window.

Options

Under the Options menu, the background color can be changed to grey, dark blue, black, or white. This may be helpful when using different colors for the various 3D objects. Spheres, Cones, and Cylinders are simulated by joining several segments together to form the circle appearance contained in those objects. The number of segments can be changed to a low number for fast screen drawing, or can be changed to a larger number to increased viewing quality. The number of segments can be 6, 8, 10, 16, and 20. When an object is deleted, Virtual Paint prompt with a confirmation message. This feature is on by default, but can be turned off.

Help

This access this help file and shows the 'About' screen.

Using the Tool Bar

The tool bar provides the ability to draw the 3D Objects onto the canvas. Several tools are made available. They are the Cube, Cone, Cylinder, Sphere, Text, Spotlight, Editor, and Eraser tools. After the tool is used in creating an object, its property screen appears. From here the object's orientation, dimensions, surface properties, text properties(when appropriate), and World Wide Web links can be altered in desired. Many different features are made available, thus a fine detailed world can be created. Once a tool is selected, the mouse cursor changes to reflect that tool. To learn how to draw/create the various object, see the following sections.

Cube

Using the mouse, click an area on the canvas for the cube's centroid and then drag its height and width. Its depth can be change when the property window appears after the mouse button is released.

Cone

Using the mouse, click an area on the canvas for the cone's centroid and then drag its height and radius.

Cylinder

Using the mouse, click an area on the canvas for the cylinder's centroid and then drag its height and radius.

Sphere

Using the mouse, click an area on the canvas for the sphere's centroid and then drag its radius.

Text

Using the mouse, click an area on the canvas for the starting point of the text string.

Spotlight

Using the mouse, click an area on the canvas for the spotlight's origin and then drag its direction.

Property Editor

Using the mouse, click an area on the centroid mark of the desired object. The centroid mark is represented by a small cross hair using found in the center of the object(It also has the same color as the object).

Eraser

Using the mouse, click an area on the centroid mark of the desired object. The centroid mark is represented by a small cross hair using found in the center of the object(It also has the same color as the object).

Operations

A typical use of Virtual Paint starts by selecting to create a new design. Various objects can be drawn to meet any situation. When drawing objects, note the X and Y coordinate changes with mouse movement. Also, dimensions in width & height and radius & angle are displayed to help properly construct the objects. These values can later be altered by using the editor tool. When the scene is finished, be sure to save it!

Preview Mode

This mode is access by pressing the button labeled “3DR”. This action renders the current scene to provide a simulated view of the final Virtual World (VRML).

