

Visualib Demo Program Help



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Overview

Welcome to the new era of Windows graphics programming! Visualib version 2.0 takes you to the leading edge of the graphics world with its sophisticated shading options, image mappings, solid textures, true 3D text drawings, and many other advanced features.

Visualib demonstration program illustrates many of the stunning features of Visualib graphics library. It contains the demos for basic 2D and 3D graphic objects and advanced options such as shading, depth buffer, and solid text.

The following system configuration is recommended for running Visualib demo program.

- 33MH CPU with math coprocessor
- 24 bit true color graphics card
- Windows version 3.1

Because of the large amount of calculations involved with shading and texture options, a fast processor is recommended. To view the realistic effects of Visualib shading function, A 256 color super VGA card is a minimum requirement. Use a 24 bit true color card for best results. Visualib text functions use the TrueType fonts available in Windows version 3.1. The program may run in earlier Windows versions, but TrueType fonts are required for text demos.

The source code of the demo program is also included in Visualib package. It may serve as an example of programming with Visualib.

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Run Demos

Select a menu item from Demo, Animation, or Primitives. The corresponding demo will be shown.

Demo contains a set of demos that highlight the main features of Visualib.

Animation shows several moving objects with double buffering.

Primitives gives a large number of drawing examples.

During a long demo session, you may cancel at any time by pressing Esc key. If you cancel a demo, the shading options for subsequent demos may be changed.

The option settings will affect the primitive displays, but they will not affect the Demo items.

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Set Options

You may change many shading options in the program to see the different effects. Four lights are available in the program. You may individually change the characteristics of the lights and turn them on or off. Simply select the lights from the Option menu and modify the options in the dialog box. Similarly four materials are available. You may change the characteristics for any of the materials, but at any time only the selected material is used for shading.

Menu Commands

Menu Commands

Demo

NURBS Curves	- NonUniform Rational B-Spline curves
Image Mapping	- mapping images to a cube
Depth Clipping	- clipping demo
Spot Lights	- effects of spot lights
Material Property	- effects of different material properties
Marble Ring	- a ring with marble texture
Wood Surface	- a surface with wood texture
Granite Cube	- a cube with granite texture
Stereo Text	- 3D solid text with shading
3D Composite	- a ball bearing
2D Composite	- US flag

----- Picture

Save Picture	- save the current screen image
Print Picture	- print the current screen image
With Frame	- an option to include the frame of the picture
Draw To Printer	- print the US flag

----- Exit

- exit program

Animation

2D Objects	- 2D moving objects
Viewer Motion	- effects of viewer motions
Viewer Zoom	- effects of viewer zooming
Surface Rotation	- rotating surface
Spring Rotation	- 3D rotating objects
Moving Dodecahedron	- a moving dodecahedron
Moving Icosahedron	- a moving icosahedron
Moving Star	- a moving star
Moving Frame	- a moving frame

Primitives

2D Object

Basic

Line	- 2D lines
Polyline	- 2D polylines
Mark	- 2D marks
Label	- 2D labels
Pointer	- 2D pointers
Arrow	- 2D arrows
Net	- 2D net

Curve

Bezier	- 2D Bezier curves
Hermit	- 2D Hermit curves
B-Spline	- 2D B-Splinecurves
NURBS Knots	- 2D NURBS curves with different knots
NURBS	- 2D NURBS curves
Catmullrom	- 2D Catmull-Rom spline curve
Quadratic Curve	

- various quadratic curves
 - 2D filled shapes
 - Shape
 - Box
 - Disk
 - Ngon
 - Wedge
 - Bow
 - Star
 - Flower
 - Rose
 - Ring
- 3D Object
 - Basic
 - Line - 3D lines
 - Polyline - 3D polylines
 - Mark - 3D marks
 - Label - 3D labels
 - Pointer - 3D pointers
 - Arrow - 3D arrows
 - Net - 3D net
 - Curve
 - Bezier - 3D Bezier curves
 - Hermit - 3D Hermit curves
 - BSpline - 3D B-Spline curves
 - NURBS - 3D NURBS curves
 - Catmullrom
 - 3D Catmull-Rom spline curve
 - Quadratic Curve
 - various quadratic curves
 -
 - Spring
 - Spiral
 - Shape - 3D filled shapes
 - Box
 - Disk
 - Ngon
 - Wedge
 - Bow
 - Star
 - Flower
 - Rose
 - Ring
- Surface Object
 - Bezier Surface
 - Hermit Surface
 - BSpline Surface
 - NURBS Surface
 - Coons Patch
- Solid Object - 3D shaded solids
 - Torus
 - Sphere
 - Ellipsoid
 - Cylinder
 - Cone
 - Box
 - Tube

Tetrahedron
 Octahedron
 Dodecahedron
 Icosahedron
 Frustum
 Ridge
 Star
 Flower
 String Object - text drawing functions
 Solid Text
 3D Text
 2D Text

 Select Font
 Object Array
 Rectangular - a rectangular array of objects
 Cubic - a cubic array of objects
 Polar - a circular array of objects
 Cylindric - a cylindric array of objects
 Spheric - a spheric array of objects

Options

Background Color - set background color
 Repaint Window - redraw
 Shading Method - set shading method
 Shading Preview - preview the current shading method
 Light Setting
 Select Light 1 - set light 1
 Select Light 2 - set light 2
 Select Light 3 - set light 3
 Select Light 4 - set light 4

 Global Ambient - set global ambient light
 Material Setting
 Select Material 1 - set material 1
 Select Material 2 - set material 2
 Select Material 3 - set material 3
 Select Material 4 - set material 4
 Solid Texture - select solid texture

Help

Demo Help - this help
 Visualib Help - on-line documentation of Visualib
 About Visualib - about Visualib
 License Info - license information

