Table of Contents

A recommended working process for Renderworks. Five essential points to consider.	1
Basic Rendering. The most basic, simplest and quickest form of rendering.	5
Applying Textures to Objects, Part 1	7
Adding Sunlight and Shadows, Part 1	11
Adding Sunlight and Shadows, Part 21 Place Directional lights in a scene using the Set Sun Position command.	15
Sketch Style: Wireframe	17
Hidden Line Rendering	19
Artistic Renderworks	23
Rendering in Polygon Modes	25
Render Bitmap Tool	29
Introduction to Textures	35
Textures as Resources	37

Creating Textures from Images	3
Creating Textures with Built-in Tools	
Setting Textures To Display as Tiles or Single Objects	1
A Texture's Four Components	7
Creating a Simple Reflective Surface	1
Applying Textures to Walls, Part 165 Apply textures directly to walls and their individual faces.	5
Applying Textures to Walls, Part 2	
Applying Textures to Walls, Part 3	5
Applying Textures to Extruded Objects, Part 18 Apply textures to extruded 3D objects. Locate and align textures on the objects' faces using the built-in mapping tools.	1
Applying Textures to Extruded Objects, Part 289 Use the Attribute Mapping tool to apply, locate and align textures on extruded 3D objects.	5
Applying Textures by Class and Part	

Applying Textures to 3D Objects, Part 2
Interior Lighting, Part 1: Point Light
Interior Lighting, Part 2: Spot Light
Interior Lighting, Part 3: Area Light
Interior Lighting part 4: Line Light
Simulating a Light
Exterior Lighting: High Dynamic Range Image [HDRI]
Rendering Overview
Rendering with Renderworks

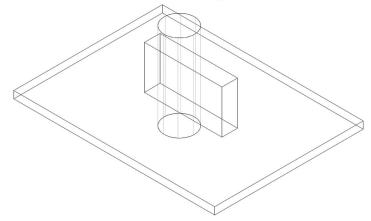
Rendering with	Radiosity	y	.14	15	5

General introduction and overview of Radiosity rendering and underlying Radiosity principles. Render with Final Quality and Custom Radiosity. Adjust the Custom Radiosity Options. Use time-saving techniques and strategies for more efficient rendering. Use the Render Bitmap tool to create test strips. Apply Final Gather in combination with Custom Radiosity as a time-saving method.

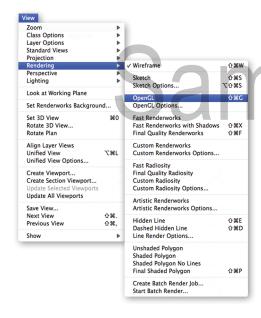
CHAPTER 1 Basic Rendering 1. Open the file exercise 1.vwx.

 Switch to Right Isometric view: View>Standard Views>Right Isometric.The scene will be rendered in Wireframe.





Wireframe rendering of a Right Isometric view.

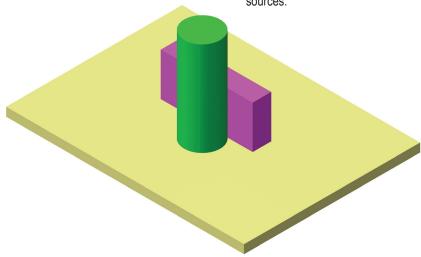


 Render in OpenGL: View>Rendering>OpenGL. The resulting rendering is seen below.

OpenGL is one of several rendering modes in Vectorworks. It renders quickly, and can provide interactive features that other rendering modes do not (although higher-quality renderings can be obtained with other modes).

The method shown here is the simplest and quickest form of rendering. Although there are no actual lights present, the scene is still fully lit and visible. Vectorworks automatically illuminates a scene when no lights are present—but this lighting cannot be modified.

Later we will see how inserting lights in a scene will cancel the default general illumination, and replace it with controllable lighting from light objects and other sources.

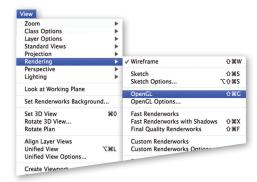


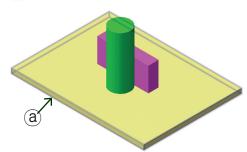
OpenGL rendering of a Right Isometric view.

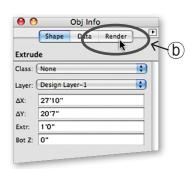
CHAPTER 2

Applying Textures to Objects, Part 1

- Open the file exercise 2.vwx.
 This file comes with two textures already prepared. A later chapter will describe the process of preparing textures.
- Switch to Right Isometric view: View>Standard Views>Right Isometric.
- Render in OpenGL: View> Rendering>OpenGL.
- Make sure the Object Info and Resource Browser palettes are open.
- In the drawing, click once on the object that represents the floor in order to select it (a).
- 6. At the top of the Object Info palette, click on the Render tab (b).



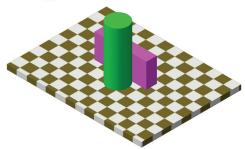




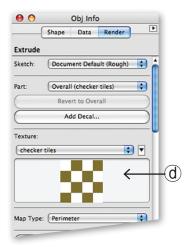


 Scroll down (if the palette is not fully extended) to the **Texture** drop-down box ⓒ (if the word **Texture** is not visible, widen the palette until it appears).

 Click on the Texture drop-down box, scroll down, and click on checker tiles.



In the drawing, note the texture applied to the floor object. This is one of several methods that can be used to apply a texture to an object.



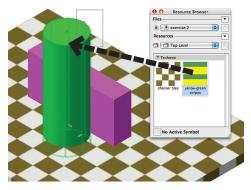
Also note the texture's image in the preview window of the Object Info palette, beneath the **Texture** drop-down box **(d)**.

 In the Resource Browser, look at the bottom pane (or window) of the palette. Double-click on the resource type entitled Textures (if it isn't already open). Notice the two texture resources shown below: checker tiles and yellow-green stripes.



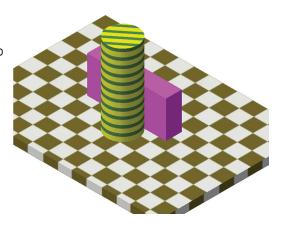
10. Place the cursor over the yellow-green stripes resource, click once and hold the mouse button, then carefully drag the resource over to the drawing until it touches the cylindrical object (touch is confirmed when the object is highlighted), and release the mouse button.

Note: To make sure the object highlights when touched, go to: Vectorworks>Preferences>Interactive tab, then select Tool highlighting.



Drag the resource over to the cylinder.

In the drawing, note the texture is now applied to the cylindrical object. This is another method of applying a texture to an object.



Texture applied to the cylinder.

NOTES

Sample